

WORKSHOP ON ACADEMIC SUPPORT TO UTs WITHOUT LEGISLATURE ON IMPROVEMENT AND MANAGEMENT OF QUALITY EDUCATION

A Report



Department of Elementary Education
**National Council of Educational Research and
Training**
New Delhi-110016
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- ❖ Prof. Krishan Murari Gupta, Senior Consultant
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Day1

Inaugural Session

A three days workshop on Academic Support to UTs without Legislature and Delhi was organized from 16-18 December, 2014 by the Department of Elementary Education, NCERT. The programme was organized to provide support for management of the quality of elementary education in union territories. The broad objectives of the workshop were to facilitate UTs in management of quality education at elementary level, discuss the emerging quality concerns and implementation of quality concerns of Elementary Education in UTs. Delegates from different UTs namely Andaman and Nicobar Islands, Chandigarh, Daman and Diu, Dadra and Nagar Haveli and Lakshadweep were invited for the workshop so as to bridge the gaps in implementing quality concern at UT level. At a later stage participants from Delhi were also invited. However, **participants representing UTs of Andaman and Nicobar, Chandigarh and Delhi were able to attend the programme.**

Workshop raised its curtain with a formal welcome speech by Prof. Manju Jain, Head of Department of Elementary Education, NCERT. She briefly explained the importance of implementing quality monitoring tools and briefly discuss to identify need of UTs in this area. She enlightened the participants that this workshop will be a sharing platform for them to identify the problems existing at grassroot level and tackling those issues for the better functioning of educational system. Prof. Yogesh Kumar, Coordinator of SSA cell gave an overview on the objectives of the programme in implementing the quality concern at Elementary level. He shared that various departments of NCERT have launched different quality initiatives such as improving science and mathematics at upstage, gender analysis of textbooks, development of material for inclusive education etc. at elementary level and these will be shared and discussed during this meeting. After that UTs shared their experiences.

Mr. Dharmendra, Deputy Director Education, Andaman and Nicobar explained the situation of elementary education existing in the UT. In his view point, the RTE clause on enrolling all children in neighborhood school within 2-3 Km is difficult to follow because of the unique circumstances existing in Andaman and Nicobar Islands. Due to the geographical constrains, tough terrain and cultural diversities the UT is facing difficulty in observing the

standard norms as envisaged in RTE Act. Children in the UT belong to five different mother tongues. Lack of regular staff for quality monitoring also remains a major problem in the UT.

Participants from Delhi informed that high PTR ratio and competence level of teachers are the major problem in the Delhi. When children of South Delhi give a good academic achievement, in east Delhi it is not even up to the mark.

Participants representing Chandigarh shared that even though the infrastructural facilities in Chandigarh are excellent; the performance level of children is not very good. About 70-80 percent of government school children in Chandigarh are migrants, more trainings are needed to be provided in their nearby area for meeting the educational need of children from diverse background.

Prof. K.M. Gupta senior consultant NCERT expressed a vote of thanks. He requested all participants to get sincerely involved in the workshop and to avail maximum benefit from it. He also emphasized that the UTs should develop a planned strategy on the basis of this workshop for the effective implementation of QMTs at the grass root level.

Technical Session One: Implementing Continuous and Comprehensive Evaluation (CCE) – Initiative of NCERT -Dr. Kavita Sharma, Associate Professor, DEE

The first technical session commenced with a discussion on the initiatives of NCERT in implementing Continuous and Comprehensive Evaluation (CCE), by Dr. Kavita Sharma, Associate Professor, DEE. She emphasized on the salient features of CCE and its implications in the context of RTE Act. She informed that NCERT has developed an exemplar Package on CCE for Primary and Upper Primary Stage. It comprises of one comprehensive package for primary stage and subject-wise package for upper primary stage. Each package comprises 3 sections:

- Understanding of CCE
- CCE in classrooms: practical examples for teachers
- Some essentials for CCE for Practitioners, Teacher Educators and Administrators.

She also added that, the NCF 2005 has given emphasis on implementation of CCE and if the CCE is implemented in its true spirit, it will help in enhancing the achievement levels of children.

Dr. Seema Srivastava from DIET, Delhi suggested that many teachers in the UT are not fully aware of textbooks and have limited knowledge in its implementation; therefore it would be effective if there are more initiatives for availing all materials prepared by the NCERT to the States and UTs. Prof. Yogesh Kumar summarised the session and clarified the queries of participants and mentioned that all the material developed by NCERT have been uploaded on NCERT website.

**Technical Session Two: Presentation and Discussion on Early Literacy Programme(ELP) –
Dr. Usha Sharma**

In the afternoon session presentation and discussion was done by Dr. Usha Sharma on Early Literacy Programme. Dr. Usha Sharma gave a extensive presentation on Mathura Pilot Projects on Early literacy and suggested points for improvement in classrooms at elementary level by providing proper physical environment. She suggested measures for developing reading-writing process for young children. Reading literature for young children like Barkha and Firki series was distributed to the participants. Challenges faced basically in terms of resource and infrastructures were discussed. She also initiated an interactive session with the participants. The participants appreciated the work on Early Literacy and enquired about resources needed for making classroom reading and writing friendly. She gave the links of website where ELP material is available on DEE website.

Day II

Technical Session Three: Discussion on Implementation of Quality Monitoring Tools and its Status- Prof. Yogesh Kumar

The technical sessions at day II started with a presentation by Prof. Yogesh Kumar on discussion on Implementation of Quality Monitoring Tools and its Status in the States and UTs. He highlighted on the objectives of Quality Monitoring Tools, dimensions of QMTs at different level and various aspects covered in it in a precise and deliberate manner, so that it is clear for the delegates from UTs. Broadly, QMT is a two way flow of information from school level to national level and vice versa for monitoring the quality dimensions of elementary education and providing needful suggestions. By filling up this format the CRC Coordinators will be able to understand the situation of elementary education prevailing under his area and discuss with the corresponding authorities for remedial measures. He explained the significance of QMT in terms of PTR, SMCs and the need to ascertain the participation of community in monitoring of elementary education. The revision of QMTs at various levels and the initiatives undertaking by the Department of Elementary Education in this regard were discussed in a well constructive way.

Technical Session Four: Promoting Gender Sensitivity in classroom: Sharing experience- Prof. Gouri Srivastava

Promoting Gender Sensitivity in classrooms is the main need of this era, Prof. Gouri Srivastava; Head DGS emphasized on sharing her experiences in connection with promoting Gender sensitivity in classroom. She commenced her presentation by giving a deep condolence for the children killed in the terrorist attack at the Army public school Peshwar.

She explained the importance, types and role of classrooms in building up the nation. There should not be any stereotype on gender, the changing role of women needs to be reflected in books, if children are required to be gender sensitive it has to be done at an impressionable age, changes are to be made at classrooms, this were her main suggestions. She clarified the concept of hidden curriculum and shared her own experience at Maldives and rural India and her role as an academicians, women and mother in promoting gender sensitivity.

Participants from all UTs shared experiences and their interventions for promoting gender sensitivity.

Technical Session Five: Special Training and age appropriate admission of Out of School Children under RTE Act – 2009- Dr. Pushpa Mandal, Associate Professor, DEE, NCERT

Dr. Pushpa Mandal from the department of elementary education delivered a detailed and informative presentation on the need and importance of providing special training to the Out of School Children. She came up with the provisions of special training in the RTE act, for what special training is and for whom it is. The main highlights of her presentation were as follow.

- Special Training is a complex activity and a challenging job for all concerned.
- One of the first step that must be undertaken is authentic identification of Out-of-school Children and induction in neighborhood school.
- Such children when directly admitted in age appropriate class has a right to receive special training to be at par with others
- Mainstreaming of such children into formal schools is to be done through special training of varying durations from three months to twenty four months
- Special Training is a specific intervention which aims at admission of Out-of-School children in age appropriate classes and to integrate the child with rest of the class.
- The Act further states, if situation demands the child shall be entitled to free education till completion of Elementary Education even after fourteen years.

She concluded her presentation by pointing out that SMCs should be strengthened, teachers should be more committed and ensure that each and every child in STC's is learning and progressing. This can result in right implementation of special training for Out of School Children as envisaged in RTE.

**Technical Session Six: PINDICS Prof. B.P Bhardwaj, Head DTE and Learning Indicators
Dr. Sandhya Sangai, Associate Professor DEE.**

Prof. B.P. Bhardwaj gave an insight upon draft indicators for assessing the teacher's performance in the light of the provisions of RTE act. His main focus was on performance standards, criteria of indicators and feedback. According to him the performance indicators can be used for self assessment by the teachers for their improvement. CRCC/BRCC or other supervisory staff can also use it for assessing the performance of teachers and support them through appropriate teacher development programmes.

He also described the procedure to use PINDICS and assessing level of performance. He also informed the participants about the academic support being provided by the department to UTs regarding the finalization and implementation of PINDICS during the regional workshops organized in different RIEs.

A brief presentation on Learning Indicators and need for them at the elementary level was given by Dr. Sandhya Sangai. She discussed the framework behind LINDICS and suggested future course of action. She discussed various features of LINDICS and mentioned that the learning indicators can only be achieved through appropriate pedagogical process. Participants from Chandigarh suggested that there should be various skill oriented courses and counseling sessions for children who are lagging behind and Dr. Sangai given various examples to utilize these indicators in different context and situation.

Day III

Technical Session Seven: Inclusive Education: Curriculum and adaptation for CWSN Prof. Anita Julka

Prof. Anita Julka's gave a presentation on Inclusive education: curriculum and adaptation for CWSN. She clarified many aspects related with this area to develop understanding on content and conceptual process. According to her, for practicing inclusive education in classrooms, a systematic planning is required and enabling environment should be provided to CWSN. Adequate laws and policies are to be made in this regard. She elaborated on adaptations essential for inclusive classrooms like level of support to be provided, time allotted for learning, substitute curriculum for meeting learner's individual goals, input and output and extent of active involvement by learners. She concluded her session by illustrating an exercise for Children With Special Needs by involving the participants. She also distributed some learning material for improving learning process for CWSN.

Technical Session Eight: Improvement of Science and Mathematics Education at the elementary level Prof. A.K. Wazalwar, Head DESM and Dr. Anjni Koul, DESM

The major focus in the presentation by Prof. Wazalwar and Dr. Anjni Koul was on curricular materials developed, strategies for dissemination of developed materials, Inputs to be given during the orientation programme and issues and concerns regarding improvement in science and mathematics at elementary level. They also informed the participants on various educational materials and packages prepared by NCERT like *Pedagogy of Mathematics*, *Pedagogy of Science*, *Science and Mathematics Kit*, *Source Book on Assessment for Science and Mathematics for class VI-VII*, *Project Books in Environmental Education* and *Training Manuals for Teachers and Laboratory Manuals*.

They also conveyed the participants regarding the Orientation Programmes organized for key functionaries at Upper Primary Stage for different States & UTs on the dissemination of the developed materials by the department. Issues like large and inclusive classrooms, lateral entry, strengthening of activity rooms/corners for science and mathematics, strengthening of libraries,

identification and nurturance of talented and gifted children were raised and participants shared their views and experiences.

Technical Session Nine: Use of Science and Maths Kits in Transactional Process Prof. R.K. Parashar, Head DEK

The participants were given an opportunity to visit Division of Educational kits to explore the use of Science and Maths kits in transactional process. This was a practical exposure for the participants to experience and learn various kits in learning so as they can practise it in their classrooms. Prof. Parashar and his colleague explained various kits in science and mathematics and its applicability in the classrooms. The participants were also given an opportunity to visit the science park. After spending some time there and learning about scientific exhibits displayed, the group dispersed for lunch.

Technical Session Ten: National Achievement Survey Prof Sridhar Srivastava Head ESD and Dr. Santosh Kumar, ESD

The last presentation was given by Prof. Srivastava on an overview of the National Achievement Survey. He explained the objectives, survey cycles and coverages, steps, key features and sampling procedures of the National Achievement Survey. He also highlighted the subject wise reports in NAS and an example of item analysis for finding the learning gaps. Item based performance level of children across the States/UTs presented in a very precise and understandable manner. In his view point, NAS is not a panacea for all incompleteness of schooling however it can reflect on the whole schooling, hence all State/UTs have to come forward to get the benefit of NAS.

Valedictory Session: Concluding session

In the valedictory session, Prof. Yogesh Kumar welcomed Prof. Manju Jain, Head of the Department of Elementary Education, for delivering the valedictorian address. He emphasized on the need of developing better strategies for the effective implementation of QMTs in the UT level. Participants from different UTs have shared their feedback, in the view points, the workshop were utmost useful for them. Participants shared their views that all presentations in the workshop were resourceful and they received a better understanding on implementation of QMTs in respective UTs.

In the concluding remarks, Prof. Manju Jain thanked all the participants for being a part of the programme. She also told the participants to act as a messenger to gather information and share it and work it out at the respective UT level. As NCERT is the academic authority for UTs without legislature, any interventions on the part of NCERT if required are welcomed. As programmes are not to be organized in the sake of programme organization, she invited for all constructive suggestions from the UTs for effective implementation of QMTs. Dr. Pooja Singh gave vote of thanks to the Head of the Department, resource persons, faculties and all the participants for their kind co-operation in making the workshop lively, informative and enthusiastic.

Academic Support to UTs (Without Legislature) on Improvement and Management of Quality Education

Date: December 16 to 18, 2014

**Venue: Room No.421, 4th Floor Department of Elementary Education,
G.B. Pant Block, NCERT**

Programme Schedule

Day & Date	Programme
Day 1: December 16, 2014 (Tuesday)	
10:00 am – 10:15 am	Registration
10:15 am – 11:00 am	<ul style="list-style-type: none"> • Welcome <i>Prof. Manju Jain, Head DEE</i> • About the Programme <i>Prof. Yogesh Kumar, DEE</i> • Vote of Thanks <i>Prof. K.M. Gupta, DEE</i>
11:00 am – 11:15 am	TEA
11:15 am-12:15 pm	<ul style="list-style-type: none"> • Sharing by UTs the Quality Concerns at the elementary stage
12:15 pm – 01:15 pm	<ul style="list-style-type: none"> • Implementing Continuous Comprehensive Evaluation (CCE) – initiatives of NCERT <p style="text-align: right;"><i>Dr. Kavita Sharma, DEE</i></p>
01:15 pm – 02:15 pm	LUNCH
02:15 pm – 03:30 pm	<ul style="list-style-type: none"> • Presentation and Discussion on Early Literacy Programme (ELP) – <p style="text-align: right;"><i>Dr. Usha Sharma, DEE</i></p>
03:30 pm – 3:45 pm	TEA
03:45 pm – 05:00 pm	<ul style="list-style-type: none"> • Discussion on quality concerns at the state level

Day 2: December 17, 2014 (Wednesday)	
09:45 am – 11:00 am	<ul style="list-style-type: none"> • Discussion on Implementation of Quality Monitoring Tools (QMTs) and its status <p style="text-align: right;"><i>Prof. Yogesh Kumar, DEE</i></p>
11:00 am – 11:15 am	TEA
11:15 am – 01:15 pm	<ul style="list-style-type: none"> • Promoting Gender Sensitivity in Classroom: Sharing experience <p style="text-align: right;"><i>Prof. Gouri Srivastava, Head DGS</i></p>
01:15 pm – 02:15 pm	LUNCH
02:15 pm – 3:30 pm	<ul style="list-style-type: none"> • Technical Session Five: Special Training and age appropriate admission of Out of School Children under RTE Act – 2009 <p style="text-align: right;"><i>Dr. Pushpa Mandal, DEE</i></p>
03:30 pm – 03:45 pm	TEA
03:45 pm – 05:00 pm	<ul style="list-style-type: none"> • PINDICS <i>Prof. B.P. Bhardwaj, Head DTE</i> • Learning Indicators <i>Dr. Sandhya Sangai, DEE</i> • Group Work – UT wise discussion on quality concerns and developing plan of action

Day 3: December 18, 2014 (Thursday)	
09:45 am – 10:45 am	<ul style="list-style-type: none"> Inclusive Education: Curriculum Adaptation for CWSN <i>Prof. Anita Julka, DEGSN</i>
10:45 am – 11:00 am	TEA
11:00 am – 11:45 am	<ul style="list-style-type: none"> Improvement of Science & Mathematics Education at the elementary level. <i>Prof. A.K. Wazalwar, Head DESM</i> <i>Dr. Anjini Koul, DESM</i>
11:45 am – 12:45 pm	<ul style="list-style-type: none"> Use of Science & Maths Kits in transactional process <i>Prof. R.K. Parashar, Head DEK</i>
12:45 pm – 1:30 pm	<ul style="list-style-type: none"> National Achievement Survey: <i>Prof. Sridhar Srivastava, Head ESD</i> <i>Dr. Santosh Kumar, ESD</i>
01:30 pm – 02:30 pm	LUNCH
02:30 pm – 3:30 pm	<ul style="list-style-type: none"> UT wise sharing plan of action Expectations from NCERT in academic support
03:30 pm – 03:45 pm	TEA
03:45 pm – 05:00 pm	<p><i>Valedictory Session</i></p> <ul style="list-style-type: none"> Sharing progress of programme <i>Prof. K.M Gupta, DEE</i> <i>Prof. Yogesh Kumar, DEE</i> Feedback from participants Concluding Remarks & the Way Forward <i>Prof. Manju Jain Head DEE</i> Vote of Thanks <i>Dr. Pooja Singh, DEE</i>

Department of Elementary Education
National Council of Educational Research and Training

**Workshop for Academic Support to UTs (Without Legislature) on Improvement
and Management of Quality Education**

Date: December 16 to 18, 2014

BACKGROUND NOTE

The Department of Elementary Education (DEE) is a nodal department of NCERT to advise Government of India on policies and programmes pertaining to Elementary Education. It acts as a nodal centre to provide resource support in quality aspects for implementation of Sarva Shiksha Abhiyan (SSA) and Right to Education (RTE) Act, 2009 at the national level. In this context, the department has consistently been supporting and providing guidance to States/UTs under the SSA activities as well as the implementation of Right to Education (RTE) Act, 2009 to achieve the goal of quality elementary education for all. The department undertakes various activities and programmes within the broad frame work of Universalisation of Elementary Education. The major activities of the department include development of syllabi, textbooks, teacher's support material, resource materials for teachers and teacher educators, assessment exemplar material; organization of orientation programmes key functionaries on various aspects of curriculum and its transaction; conduct of researches and programme evaluation studies in the area of elementary education; extension activities to provide academic support to the States/UTs through seminars, national meets, etc. The major focus areas under SSA activities are of Early Literacy Programme, Early School Mathematics Programme and Elementary Education and Quality Monitoring Tools with the vision to improve the quality of education of elementary stage. NCERT is an Academic Authority for implementation of Right of Children to Free and Compulsory Education Act 2009 for the Union Territories without legislature namely Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli, Daman & Diu and Lakshadweep. The various interventions of NCERT for improving the quality of cluster education are briefly discussed below

Quality Monitoring Tools (QMTs)

Quality Monitoring Tools have been implemented in all the States and UTs with a view to provide feedback to teachers and other educational functionaries. The major aspects of quality

dimensions covered in these formats include children's attendance, community participation and management, teacher preparation, curriculum completion, classroom processes, learners' assessment and support of sub district structure. In the QMTs -2013, there are 5 Formats one at each level i.e. school, cluster, block, district and state. In addition there are two more formats namely: School Management Committee Format (SMCF) and Classroom Observation Schedule (COS). While, SMCF is expected to reflect on 'Community Perceptions on School Functioning', the COS is used by the cluster level functionaries during their regular visits to the concerned schools. The DIET faculty and the BRC coordinators may find these sheets useful during their random visits to schools. It has been visualized that these Monitoring Tools will empower the functionaries at different levels UTs are expected to implement QMTs for corrective measures.

Early Literacy Programme (ELP)

The Early Literacy Programme aims to promote meaningful practices of reading and writing in early years of schooling (classes I and II) and create a cadre of teachers well acquainted with the pedagogy of reading and writing in early grades. In order to implement this programme, various steps have been taken to initiate a dialogue amongst the educationists, and all the States/UTs to develop awareness about the need and importance of early literacy

Under the programme, material for teachers and children has been developed and a process of selection of appropriate children's literature has been under taken, as children need to be provided with meaningful and relevant children's literature, so that the processes of meaning making can be facilitated. 'Reading Corners' have been designed for establishment in all schools for classes I and II so that children have easy access to children's literature. Teacher support material i.e. manuals on reading and writing, dossiers- a compilation of articles, posters and audio-video programme were developed. Orientation programmes for Key functionaries, Master Trainer, District, Block and Cluster Resource coordinators were conducted for select states on a regular basis along with teachers, so that the existing structure of the school administration have a good understanding to provide support and conduct regular monitoring of the programme.

Early School Mathematics Programme (ESMP)

In primary education, Mathematics has remained an area of utmost importance which children need to understand and master. By the time, a child slowly grows up, the skills required to cope

up with Mathematics, if they are missing, create a complex situation for the child and she/he is unable to progress much in Mathematics rather than have a fear of Mathematics starts building in. The National Curriculum Framework - 2005 has also pointed out “*A majority of children have a sense of fear and failure regarding Mathematics. Hence, they give up early on, and drop out of mathematical learning.*” It has been a matter of great concern for all of us educationists, teacher educators and teachers that during the formative years of schooling, the children are not able to learn Mathematics in a way so that they develop an understanding of various aspects like numbers, shapes, etc. acquire skills and mathematical process to cope up with various mathematical operations and mathematical concepts. Therefore, there is a need to help the children learn Mathematics in a way so that liking and understanding of the same is being developed during the early years of schooling. The programme has been designed to develop pedagogic material to support concrete experience based teaching learning transaction in classrooms for Mathematics in early grades.

Continuous and Comprehension Evaluation (CCE)

The Right of Children to Free and Compulsory Education Act, 2009 (RTE Act, 2009), implemented since April 2010, has made elementary education a Fundamental Right to all children in the age group of six to fourteen years. Chapter V of the Act on *curriculum and completion of Elementary Education under Section 29 (2) (h) provides for **comprehensive and continuous evaluation of child's understanding, knowledge and his or her ability to apply the same.*** In view of this, various efforts have been made by States and UTs to develop CCE materials and evolve strategies for its implementation. The analysis of materials developed in this area and the field experiences suggest that teachers are facing problems in understanding CCE and its implementation in the classrooms. The reporting procedures of children's progress have also been found mechanical and cumbersome for teachers. The teachers and other field level functionaries are interpreting CCE in their own way and are not able to internalize the spirit and need for making it an integral part of their teaching learning activities. NCERT being an academic authority has developed exemplar material in the form of package on CCE for the elementary stage in all curricular areas. At the primary stage, generally one teacher teaches all the subjects. Therefore, for this stage, a comprehensive package has been developed covering examples from different subjects. At the upper primary stage, subject-wise material has been developed in Science, Mathematics, Social Sciences, Hindi, English, Urdu and Arts Education.

The examples given in the package will help teachers to develop understanding related to pedagogical and Assessment practices in the light of NCF-2005 and RTE-2009. It is also proposed that the academic support should be provided to the States and UTs on a continuing basis.

Learning Indicators and Teacher Performance Indicators (LINDICS & PINDICS)

Learning indicators in various curricular areas are developed to help teachers to monitor the learning of the children and provide them the additional support, if needed, without losing time. This will control the problem of learning gaps which continue to accumulate even when children are promoted to next classes as per the ‘No Detention Policy’.

The NCERT has developed learning indicators in all curricular areas i.e. Hindi, Urdu, English, Mathematics, Science, Social Sciences, EVS, Arts Education. It was also decided that stage-wise learning outcomes or curricular expectation should also be developed to see the child progress holistically.

The teaching learning strategies have to be planned according to the needs of the children. The teacher will have to determine the needs as she/ he interacts with the child, while drawing her daily activities and other classroom plans. It is expected that well defined learning indicators can be an important resource for the teacher in this regard. At the same time teachers cannot think in isolation to help students achieve these expectations. Therefore pedagogical interventions and processes that are required to achieve these expectations have also been given suggested for each curricular area in the document.

The Performance Indicators (PINDICS) for teachers have been developed to help teachers in their self evaluation and improve their performance on the basis of such an assessment. The participants of the workshops will be oriented to use PINDICS for teacher development.

Improvement of Science and Mathematics Education at the Upper Primary Level

The NCERT has developed syllabi, textbooks, laboratory manuals, exemplar problems, source books, pedagogy textbooks, kits, continuous and comprehensive evaluation package (CCE) and learning indicators in science and mathematics, Teachers, mostly in rural areas are not familiar about CCE, constructivist approach and the supplementary material developed by the NCERT.

The Department of Science & Mathematics is trying to reach out to the teachers by orienting participants from SSA, SIE and DIETs of different UTs for capacity building. These faculty members in turn will orient teachers of their UTs for making quantitative and qualitative improvements in the school education.

The broad objectives of this programme are to

- i). Facilitate UTs in management of Quality of Education at Elementary level.
- ii). Discuss the emerging concerns of quality of elementary education viz. CCE, LINDICS, PINDICS, ELP, ESMP, QMTs etc.
- iii). Implementation of quality concerns of Elementary Education in UTs

Approach and Methodology of this Programme

The programme is being organised to achieve the broad objectives for management of the quality of elementary education in Union Territories. Accordingly, academic faculty is expected to initiate discussion through examples and presentations. The instructional material in print form will be made available to the participants. After the introduction of the topic, the participants are expected to raise issues for clarification. The participants have to examine the application of the topic of recent development in their situation. The resource faculty needs to help the participants to elaborate the concept to make it implementable in the schools of the UTs. The participants will also get an opportunity to prepare a plan of action for improvement of quality of education in their school.

Participants and Participating UTs

An UT is expected to formulate a team for the implementation of quality concerns at school level. The responsibility of improving the quality of school education primarily lies with the machinery of Sarva Shiksha Abhiyan. Accordingly, 2 in each UT 3 persons from SSA and 2-3 persons from State Institute of Education or State Council of Education Research and Training and District Institute of Education and Training will comprise a team. Thus, a core team of 4-5 persons is expected to be the participants of the programme. Initially the programme was planned for the Union Territories of Andaman & Nicobar Islands, Chandigarh, Dadar & Nagar Haveli, Daman and Diu and Lakshadweep. Delhi has been specially invited to join the programme of management of quality education.

Dates and Venue

The programme is being organized from 16th to 18th December, 2014 in Room No.421, 4th Floor, Department of Elementary Education, G.B. Pant Block, NCERT, Sri Aurobindo Marg.

Expected Outcome of the Programme

The participants are expected to acquire a strong background of emerging concerns based on Right of Children to Free and Compulsory Education Act, 2009 for quality improvement. The participants are expected to prepare a plan of action for implementation in the Union Territory. In nutshell the outcome of the programme should lead to the improvement and management of quality of education at elementary level.

**NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING
SRI AUROBINDO MARG, NEW DELHI-110016**

Department of Elementary Education

Title of Programme : Workshop on Academic Support to UTs without Legislature on
Improvement and Management of Quality Education
Venue : 421 G.B. Pant Block
Duration of the programme : 16-18 December, 2014
Name of the Co-ordinator. : Prof. Yogesh Kumar

LIST OF PARTICIPANTS AND RESOURCE PERSONS

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Implementing CCE **ENSURING QUALITY**

By
NCERT

CCE

- As per RTE-2009, CCE is an integral part of teaching learning process.
- The concept of CCE is not new to the education sector, however, its implementation has proved to be challenging.
- Lack of clarity on research based guidelines that incorporate underlying principles of this approach.

Role of NCERT

- To address the Issues, concerns and misconceptions related to CCE
- To generate awareness among various stakeholders and their role in CCE
- To develop consensus among state partners for CCE implementation

CCE & RTE

- conformity with the values enshrined in the constitution;
- all round development of the child;
- building up child's knowledge, potentiality and talent;
- development of physical and mental abilities to the fullest extent;
- learning through activities discovery and exploration in child friendly and child-centered manner;
- medium of instructions shall, as far as practicable, be in child's mother tongue;
- making the child free of fear, trauma and anxiety and helping the child to express views freely;
- comprehensive and continuous evaluation of child's understanding of knowledge and his or her ability to apply the same;

Issues

- Non Detention Policy
- Large Teacher- Pupil Ratio
- Exhaustive Recording and Reporting

Misconceptions about CCE

- Continuous- all the time/ regular testing
- Comprehensive- Total syllabus
- Formative and Summative
- Assessment' and ' Evaluation'
- Marks versus Grades

EFFORTS AT NCERT

- Conceptual Framework of CCE
- Exemplar Material on CCE

Developing the CCE Framework

Classification of the identified Core ideas/Characteristics of CCE

- Learning Conditions /Learning Pre-Requisites
- Teacher Preparedness/ Professional Development
- Teaching-Learning Process
- Methods/Techniques of Assessment
- Criteria of Assessment
- Purpose of Assessment
- Process of Reporting Progress
- Individualized Attention
- Teachers' Assessment practices
- Any Other

CCE Framework

Purpose	Characteristics	Description	Common Features of Assessment (For, As & of Learning)
Assessment For Learning	Helps in holistic development of students	It includes all aspects of student personality i.e. knowledge performance, skills, interests, attitude, motivation using a range of activities that the child participates in both inside and outside the classroom	Assessment is a school-based activity integrated with the teaching learning

Purpose of Assessment

Assessment For Learning
Assessment As Learning
Assessment Of Learning

Assessment For Learning

1. School based
2. Non threatening
3. Free from Biases
4. Continuous
5. Integral to T-L
6. Comprehensive – includes all aspects of personality
7. Sensitive to individual learning needs
8. Collaborative & Participatory Approach
9. Multiple Evidence based
10. Timely , Specific and clear feedback
11. Not for formal reporting

Assessment As Learning

- Enhances Child's Self Confidence
- Enables Self Assessment -
- Promotes Self Learning
- May be Reported

Assessment Of Learning

- Provides Comprehensive information of student learning vis-à-vis curricular objectives
- No Labelling
- No Comparison with others
- To be reported

About CCE Package

- Exemplar Package on CCE for Primary and Upper Primary Stage
- One comprehensive package for primary stage
- Subject-wise package for upper primary stage-Hindi, English, Urdu, Mathematics, Science, Social Sciences and Arts Education
- Each package comprises 3 sections:
 - > Understanding of CCE
 - > CCE in classrooms
 - > Some essentials for CCE for Practitioners, Teacher Educators and Administrators.
- Video Film – CCE in Mathematics classrooms

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Process of developing the Package

1. Analysis of existing CCE material and Process of implementation
2. Constitution of Core group and organization of Planning meetings (July, 2012)
3. Constitution of Working groups (8 sub-groups, subject-wise)
4. Organization of developmental workshops (Aug-Sept 2012)
5. Organization of sharing meetings with core group & working groups (Oct, 2012)
6. Review Workshops to finalize the drafts (Nov, 2012)
7. Field Trialing of Package: (30th Nov.- 21st Dec. 2012)
8. Workshop to incorporate feedback received from teachers and principals (22nd Dec – 27th Dec 2012)
9. Finalization of draft package (Jan 2013)

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Salient features of CCE Package (1)

- Understanding on CCE – What CCE is and What it Isn't !
- Providing examples on *how CCE can be used as an integral component* of teaching-learning process; (assessment for learning) and how assessment could be used as an external activity (assessment of learning)
- Addressing *subject specific issues* in CCE.
- *Depicting entire process* of CCE implementation.
- Providing *suggestive learning indicators* for various subjects as criteria of assessment.
- Addressing issues on *how to assess personal social qualities*.
- Providing *opportunities for children* performing beyond expectation.

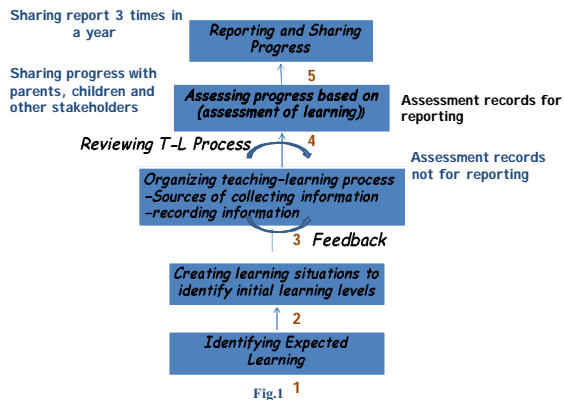
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Salient features of CCE Package (2)

- Providing examples on *assessment of various ways of child's learning*.
- Suggesting ways of providing *timely feedback, scaffolding and peer assessment*.
- Providing *suggestive format for recording and reporting process*.
- Provide a *model and broad guidelines* for teachers, teacher educators, and administrators, for implementing CCE.

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Section 2: Process of CCE in classroom



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Section – 3: What role teachers need to play?

- ❖ **Essential elements of continuous assessment (assessment for learning)**
 - ✓ Assessment during teaching-learning be used as a process for learning
 - ✓ Not to be used for making judgments/ comparisons
 - ✓ Identify strengths /learning gaps of children
 - ✓ Opportunity for mutual learning (**Teachers & Children**)
Devote more time on assessment for learning
 - ✓ It is a tool for teacher to teach better and for learner to learn better (**Zone for Proximal Development**)
 - ✓ Create non-threatening environment
 - ✓ Discourage rote-learning
 - ✓ Purpose is self progress

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Section – 3: What role teachers need to play? (2)

- ❖ **Essential elements of Comprehensive assessment (assessment of learning)**
 - ✓ Focus is on what children have learnt
 - ✓ Comprehensive assessment is based on some criteria
 - ✓ Conducted by the teacher after consistent efforts of continuous assessment
 - ✓ Data to be recorded for reporting purpose
- ❖ **Essentials for evaluating child's progress**
 - ✓ Could be done 2/3 times in a year
 - ✓ Purpose is to judge child's learning based on common criteria
 - ✓ Instead of marks, grades/levels should be given. It should be substantiated by remarks or descriptions
 - ✓ Communicate progress in a simple manner

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Role of Teacher Educators, BRC/CRC Personnel

- Build capacity of teachers to use assessment as a process (assessment for learning)
- Believe in process of mutual learning
- More emphasis on discussion, sharing experiences participatory approach
- Focus on do-how rather than on do-know
- Context specific trainings and critical pedagogy is crucial
- State specific formats should be discouraged
- More focus on Teaching-Learning process less focus on record keeping
- Provide inputs for creating atmosphere for group learning
- Develop clarity on how to follow classroom transaction

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Guidelines for Administrators (1)

- Joint responsibility of school- their role is crucial
- Regular interaction with teachers is a part of CCE implementation
- Flexibility in timetable
 - ✓ *autonomy to teachers*
 - ✓ *not to develop year-long timetables*
- Sharing by teachers about in-service training programmes
- Flexibility and *autonomy to teachers* to take up lessons/teaching-learning process
- Administrators are not supervisors or reporting officers rather as a facilitator, guide, partner
- Opportunities to be given to attend workshop/ conferences

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Learning Indicators and Learning Outcomes

- One comprehensive Document for elementary stage
- Subject-wise- English, Hindi Urdu, Mathematics, EVS, Science, Social Science and Arts Education
- Preamble
- Subject wise-
- Curricular Expectations/pedagogical Processes / Learning Indicators

Workshops for capacity building of the States/ UTs

- Five Regional Workshops on CCE during 2013-14
- Five Regional Workshops on learning Indicators/Outcomes during 2014-15
- Support to Haryana

Review of CCE Material of the States and UTs - Progress till now

- Correspondence was done with the States and UTs to send CCE material
- Overall status
 - 12 States** and
 - 1 UT** has sent the CCE materials

Type of material sent (state-wise)

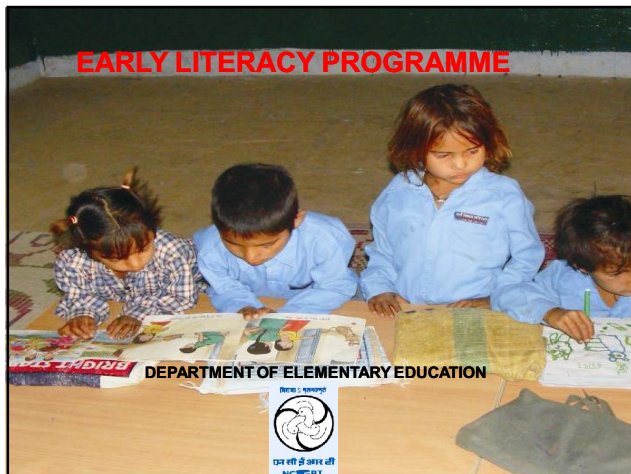
Source book (I-VIII)/ CCE Framework	Training Material Handbook (upto VIII)	Training Module for Trainers	Teachers /CCE Manual	Reporting formats
•Mizoram •Odisha	•Meghalaya •Maharashtra	•Odisha	• Madhya Pradesh • Maharashtra • Goa • Andaman and Nicobar Islands Classes (I-V) (VI- VIII) • Manipur •Uttarakhand •Nagaland	•Himachal Pradesh (all subjects) Class III- V } checklist VI- VIII } register Class VI Assessment sheets (English, Maths, Social sc) Class III- V } Student VI- VIII } Report Card •Gujarat- evaluation formats •Nagaland –Pupil's cumulative record Quarterly assessment •Karnataka- Progress report formats CCE report cards (I-X) Recording formats (I-IX)

Language (document-wise)

English	Hindi	Regional language-
Mizoram - 1 Meghalaya- 1 Himachal Pradesh- 3 Maharashtra- 1 Odisha- 1 Goa- 1 Andaman and Nicobar Islands- 2 Manipur- 1 Gujarat- 1 Nagaland- 1 (manual) 1 (booklet) 1 (proforma) Karnataka- 3 (formats)	Madhya Pradesh- 1 Himachal Pradesh- 11 Maharashtra- 1 Uttarakhand- 1	Oriya (Odisha)- 1 Marathi (Maharashtra)- 2

Progress So far -

- Tool to analyse CCE documents has been developed by the department.
- Tool & CCE Schemes of the States and UTs have been sent to the respective RIEs.
- The analysis of the CCE Schemes is in progress



Early Literacy Programme

- To develop an understanding of the concept of early literacy.
- To create dialogue on to the pedagogy of reading and writing in the early years.
- Creating a cadre of well- informed teachers about the pedagogy of reading and writing in the early years.
- The Early Literacy Programme began at two levels:
 1. The Mathura Pilot Project
 2. Dialogue with States

2

Reading and writing in the early years

- Reading and writing should be the focus area in the formative years of schooling.
- It is integral to academic studies, professional success and personal development.
- We believe that children graduating out of primary schools should become motivated readers with sustainable & lasting reading skills.

What experts say:

The common sense notion to reading is that of precise process and that it involves exact, detailed, sequential perception and identification of letters. This naïve understanding of reading translates into a meaningless, frustrating experience for the child in the early classes i.e. grade I and II.

- Emergent literacy is the idea that children grow into reading and writing with no real beginning or ending point, that reading and writing develop concurrently and interrelatedly and according to no right sequence or order.
- Moreover, this process begins long before children enter school – through actions with peer and adults.

Reading: A meaning making process

The reader is able to construct meaning from the written text on the basis of three cues:-

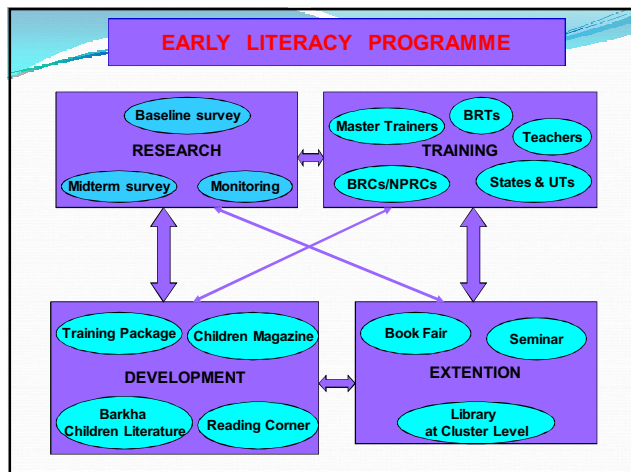
- Graphophonics
- Semantics
- Syntax

With the help of these cues children can try and predict the written text.

- Reading is a developmental and a meaning making process.
- Comprehension is an integral part of reading.
- Children use various legitimate cues as support systems as they read.
- Letter-sound recognition is not a reliable indicator of a good reader.

Writing

- Writing is much more and beyond making alphabets, curves, neat work and control.
- Writing involves writing with meaning.
- It aims at expression.
- It is purposeful.
- It is a developmental process.



The focus areas of the programme are:

- Emphasis on use of children's literature along with textbooks.
- Creating print rich environment.
- Enhancing skills/processes of language learning.
- Story telling as a tool for promoting reading & writing.
- Creating reading corners & strengthening school libraries.
- Orientation of teachers on issues of early literacy.
- Community involvement for promotion of early literacy.

The Journey

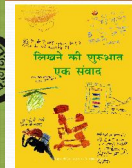
- Baseline survey - 2008
- Awareness campaign/children's book fair - 2008
- Selection of children literature - 2008
- Development of Graded Reading Series - 2008
- Teacher Training Manual- 'Padhne Ki Samajh' - 2008
- Dossier on Reading- 'Reading for Meaning', 'Padne ki Dehleez par' - 2008
- Training of Master Trainers - 2008
- Teacher Training Programme - 2008
- Reading corner in project schools - 2008
- Collaboration with States/ UT's - 2008 onwards

- Refresher programme for teachers - 2009
- Development of tools for Monitoring - 2009
- Orientation of Monitoring Team - 2009
- Monitoring
 - Phase I - Feb-May 2009
 - Phase II - Nov'09- Jan 2010
- Video recording of classrooms - 2008-2009
- Development of manual on writing 2010 (under publication)
- Teacher Training Programme Nov- Dec 2010
- Setting up functional libraries in selected schools 2011

- **Training of teachers** 2011
- **Forming a resource group** 2011
- **Publication of children's magazine** 2011
- **Development of audio-video programmes on early literacy** 2012
- **End term survey** 2012
- **Report of the End Term Survey finalized** 2013
- **Review of the MPP by third party** 2013
- **Review of children's literature 2008-09,2012-13,2013-14**
- **Material related to ELP uploaded on website** 2013-14
- **Development of annotated bibliography** 2013-14

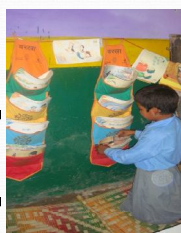
Material developed for teachers

- Reading for meaning
- *Padhne ki samajh*
- *Padhna Sikhaane ki shuruaat*
- *Padhne ki dehleez per*
- *Likhne ki shuruaat: ek samvaad*
- Posters on early literacy
- Video programmes on early literacy



Material developed for Children

- Development of Graded Reading Series *Barkha*
- Children's Magazine 'Firkee Bachchon Ki'
- Selection of Children's Literature - 2008,2013,2014



Content of the Training Programmes

- Understanding the concept of reading and writing in early years of schooling
- Use of children's literature in classroom- connecting it with early literacy activities and textbook
- Creating print rich classrooms and use of reading corners
- Planning and suggestive activities of reading and writing were discussed and based on that teachers have developed 'a day's plan' and 'various activities on stories/poems'.
- Assessment of children's reading and writing
- Teacher's attitude

Suggested points of observation of strategies and processes that foster early literacy in the classroom

Physical environment

- (conducive for reading and writing- light, seating arrangement etc.)

Classroom environment

- Teacher child relationship
- Peer- group interaction
- Freedom for children's mobility in the class
- Opportunities for children to express
- Engagement of the children with the classroom processes

- Are the children participating/expressing freely
- Are they willing to take risk(not afraid to make mistakes)
- Are they confident
- Are they supporting each other
- Are they taking initiatives
- Any other observation

Print rich environment

- Morning message
 - Types
 - Ways in which they are used
 - accessibility

- Charts in the classroom
 - Types
 - Ways in which they are used
 - Accessibility
- Display of children's work
 - Types and variety
 - How often it is changed
 - Ways in which they are used
 - Accessibility
 - Evidence of Engagement of teacher and children with written work

- Reading corner – its material, use
 - Types of books and other reading and writing material
 - Ways in which they are used by teachers and children (Story telling, conversations, read-aloud etc.)
 - Accessibility
 - Types of opportunities provided for reading and writing
- **Type of activities**
 - Teacher's planning
 - Interest level of children
 - Age-appropriateness
 - Scope for various activities (as observed through classroom observation or portfolio) to cater to individual differences

- Degree of participation of the children in the activities
- Linkages with the text book or their home environment
- Space for home language and children's experiences in the classroom
- Scope for writing (kind of writing activity)
- How is textbook transacted (if applicable)
- **Children's reading and writing processes**
 - Children's comfort level with print
 - Opportunities for talking and making reading-writing connections
 - Strategies for reading that were observed (for eg. awareness of print, use of prediction, illustration, context cues etc. for meaning making and decoding)
 - Individual differences in children's reading

- Space for children's expression/experiences in writing
- Ways of expression (for example scribbling, drawing, string of letters, invented spellings etc.)
- How does the teacher handle differences in levels of children's reading and writing
- **Assessment**
 - Types of teacher's feedback (kind of remarks, ways of correcting/acceptance of children's developmental processes of reading and writing etc.)
 - How is children's progress of reading and writing being documented
 - Record of children's writing
 - Teacher's assessment diary or any other diary/record

- **Challenges**
 - Related to resources (children's literature, stationery, display board, racks, mats etc.)
 - Related to children
 - Related to parents/community
 - Related to other teachers/ headmasters/ NPRCs



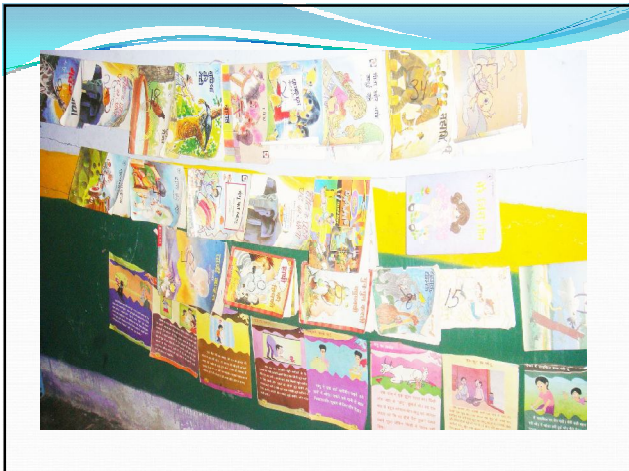
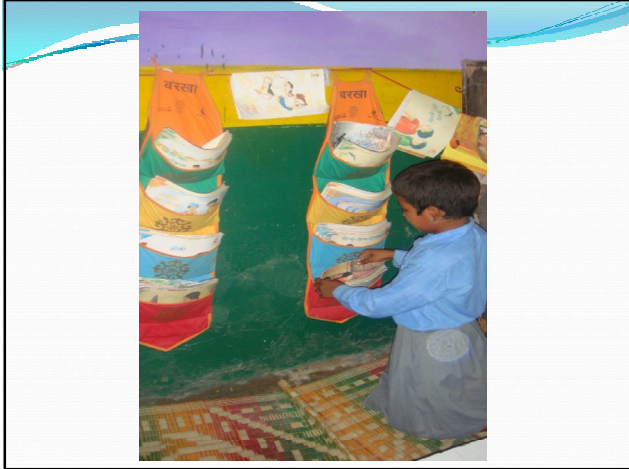
Changes are gradual
yet significant.....

Books say a lot.....

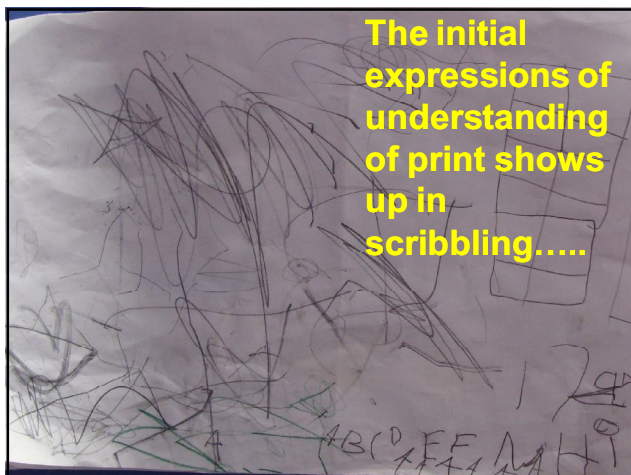
- Presence of books have made a significant difference in the classrooms.
- Books have created environment conducive for reading and writing.
- Children take lot of interest in books.
- Teachers have resources in the form of children's literature for designing activities for reading and writing.
- Our effort to create Reading Corners in classes I and II have also brought satisfactory results.
- As a result of above: children have a lot to say and express. Some of them have created their own storybooks.

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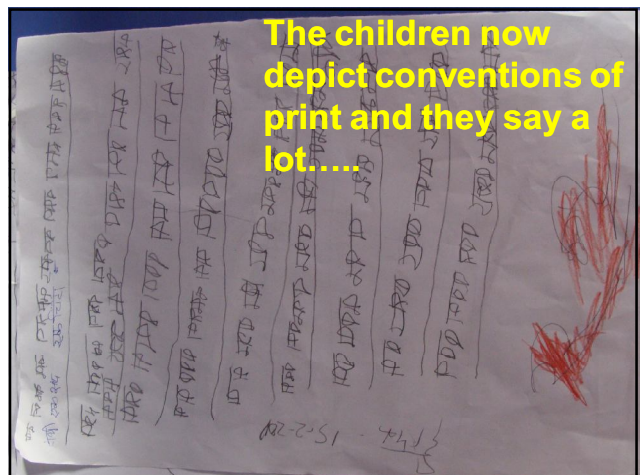




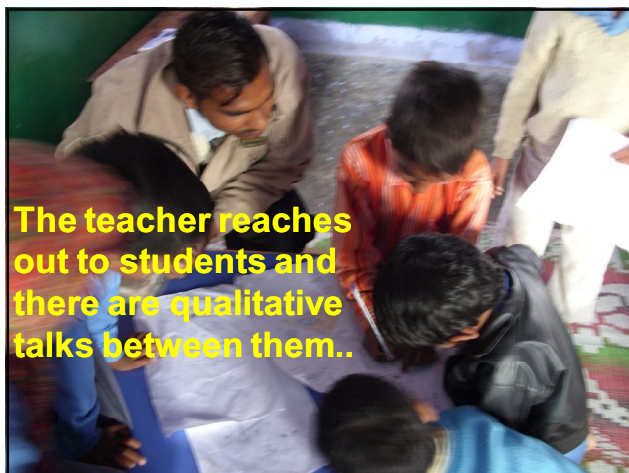
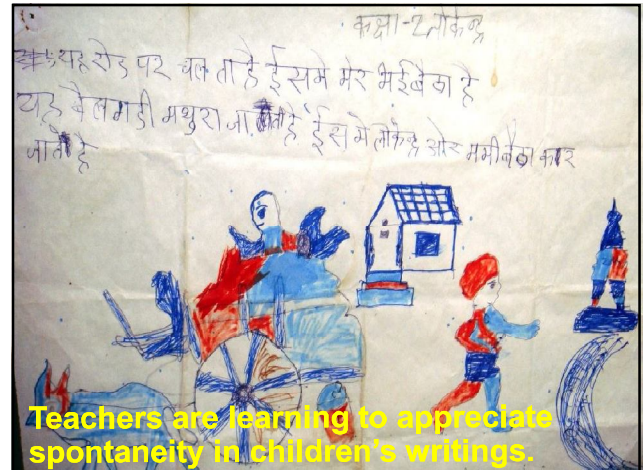
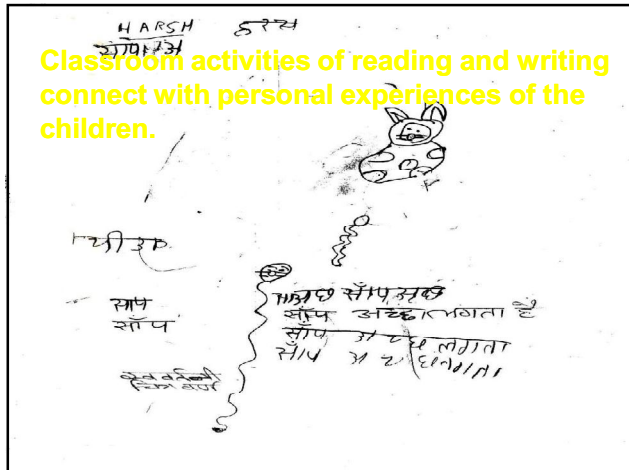




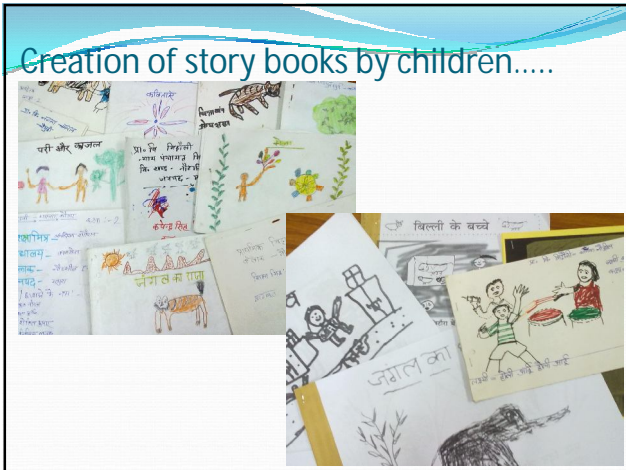
The initial expressions of understanding of print shows up in scribbling.....



The children now depict conventions of print and they say a lot.....



Creation of story books by children.....

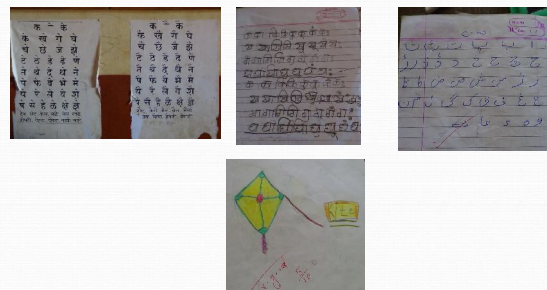


Issues and Challenges

- Very few experts with an understanding of the concept of early literacy
- Dearth of research in the area of early literacy in our country
- Development of mechanisms for regular and supportive monitoring structure for effective implementation of the programme at state level

Issues and Challenges contd.

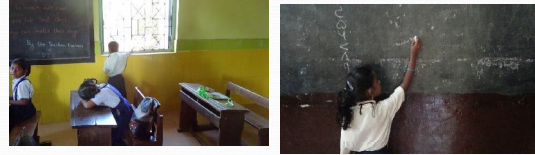
- States/ UTs to be oriented to include all salient components while implementing/ strengthening their early literacy programme



Issues and Challenges contd.



Issues and Challenges contd.



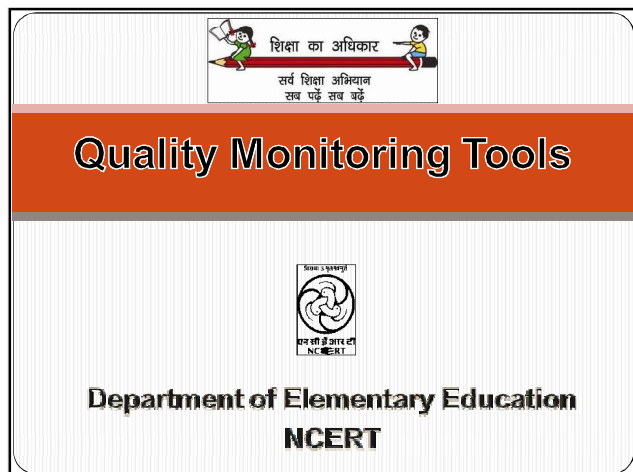
- Rigidity in attitudes hinders planning and executing of programmes.
- Informed dialogue to be initiated on early literacy processes amongst policy makers and schools administrators.

Future course of action

- Support to states/ UTs through RIEs for:
 - Strengthening and Implementation of early literacy programme in all states/UTs
 - Formation of state level resource groups on early literacy in all states/UTs
 - Development/translation and reviewing material for teachers in regional languages on early literacy
 - Promoting states/UTs to conduct selection of children's literature based on suggestive criterion in regional languages
 - Promoting states/UTs to develop a children's magazine for young learners in regional languages
 - Setting up Demonstration schools at RIEs as model practices for states/UTs associated with them for facilitating onsite trainings

Future course of action (contd.)

- Development of Promotional material on early literacy: handbook on children's literature, posters, brochures etc.
- Programme Evaluation of Early Literacy Programme (ELP) in two states/UTs
- Research on early literacy to be encouraged.
- Creating awareness among stakeholders on children's literature for promoting early literacy in classrooms, through various promotional material development
- Inclusion of components of early literacy in pre-service teacher education curriculum
- Focus on developing conceptual understanding of early literacy in in-service teacher education programmes



Implementation of Quality Monitoring Tools

- ❖ Initially QMTs were rolled out in all States and UTs during 2005-06 aiming to improve quality of Elementary Education
- ❖ QMTs have been revised in view of:
 - NCF 2005
 - RTE Act 2009
 - SSA Framework for Implementation 2011
 - Experience gained in Implementation of QMTs

Objectives

- ❖ Institutionalize monitoring system of quality Elementary Education (EE)
- ❖ Ascertain participation of community in monitoring of Elementary Education (EE)
- ❖ Monitor progress of and provide feedback on dimensions of quality education

Dimensions for Quality Elementary Education

- Basic Infrastructure and other Facilities
- Management and Community Support
- School and Classroom Environment
- Curriculum and Teaching Learning Material
- Teacher and Teacher Preparation
- Opportunity Time (Teaching-Learning Time)
- Classroom Practices and Processes
- Learners' Assessment, Monitoring and Supervision

Various Aspects of Quality Covered in QMTs

- ❖ Admission of all children
- ❖ Attendance of children
- ❖ Availability of textbooks and teaching learning material (TLM)
- ❖ Utilization of TLM grant
- ❖ Involvement of SMCs
- ❖ School development plan
- ❖ Admission of out-of-school (OoS) children in age appropriate classes

Contd...

5

Various Aspects of Quality Covered in QMTs

- ❖ Special training of OoS children
- ❖ Efforts for children with special needs
- ❖ Gender sensitive environment
- ❖ Child friendly classroom organisation
- ❖ Gender positive environment
- ❖ Provision of free expression by all children
- ❖ Participation of all children in activities
- ❖ Prohibition of physical punishment and mental harassment

Contd...

6

Various Aspects of Quality Covered in QMTs

- ❖ Conduct and completion of curriculum
- ❖ Learners' achievement
- ❖ Teachers' position
- ❖ Teacher development system
- ❖ Provision of need-based teacher training
- ❖ System of on-site support
- ❖ Role of CRC, BRC, DIET and SCERT
- ❖ Continuous and comprehensive evaluation

7

Revised QMTs at Different Levels

- School Monitoring Format (SMF): *Head Teacher*
- School Management Committee Format (SMCF): *SMC*
- Cluster Monitoring Format (CMF) : *CRCC*
- Classroom Observation Schedule (COS) : *CRCC*
- Block Monitoring Format (BMF) : *BRCC*
- District Monitoring Format (DMF) : *DPO*
- State Monitoring Format (STMF) : *SPD*

8

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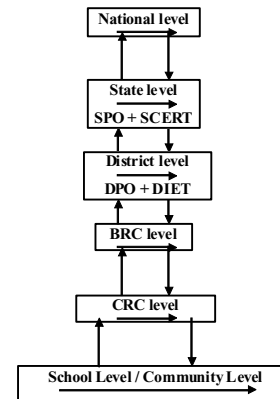
Levels of Monitoring

Level	Key Person
1 School	Head Teacher School Management Committee
2 Cluster	Cluster Resource Centre Coordinator
3 Block	Block Resource Centre Coordinator
4 District	District Project Officer
5 State	State Project Director

9

9

Two Way Flow of Information



10

10

Salient Features

- ❖ One format for each level
- ❖ Observation of classroom process
- ❖ Quarterly monitoring
- ❖ Bottom up approach
- ❖ Two way flow of information
- ❖ Assessment of progress
- ❖ Diagnosis of weaknesses
- ❖ Provision for corrective measures
- ❖ Principle of subsidiary

11

Pre-requisites for Effective Monitoring

- ❖ Structures are in place (CRCs, BRCs)
- ❖ Personnel are in position at all places
- ❖ Job profiles are defined properly
- ❖ Capacities are built-up among personnel
- ❖ SMCs are empowered about their roles
- ❖ Data are gathered timely on QMTs and analyzed/shared at each level

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Role of DIET and SCERT

- ❖ Analyze, Suggestions, Remedial Plan, Training in use of Formats
- ❖ Monitor QMTs implementation and quality improvement plan

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Analysis of State/UT Reports

States Response on QMTs

- ❖ 16 States sent filled in QMTs
- ❖ All schools using QMTs in 13 States
- ❖ Less schools using QMTs in 2 States
Puducherry- 49% and Punjab-78%
- ❖ Information not provided (INP) - Bihar

14

Students' Average Attendance

- Good Attendance (above 80%) in 8 States
Sikkim, Kerala, Chandigarh, Daman & Diu, Tamilnadu, Punjab, Delhi, Puducherry
- Needs Improvement in 3 States
Gujarat, Andhra Pradesh, Bihar
- Data Inconsistent in 5 States
Goa, Uttarakhand, Nagaland, Karnataka, Andaman & Nicobar

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Steps taken to Improve Attendance

- Meeting with parents and SMC
- Attendance Scholarship
- House visits, contacting absentees' parents/phones
- Counseling sessions for parents
- Motivation: Appreciation, cultural activities
- Addressing students' problems
- Appreciation of good attendance by rewarding

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OoSC in Age Appropriate Classes

- All States/UTs reported enrolment of OoS children except Kerala
- 9 States - **Less than one OoSC per school** A&N, AP, TN, Kar, Puducherry, Goa, Punjab, UK, Gujarat
- 3 **States-1to2 OoSC per School** D&D, Delhi, Sikkim
- 1 State- **6 OoSC per School** Nagaland
- 1 State- **42 OoSC per School** Chandigarh
- Special Training Centres: **Largely in schools, some residential and some run by NGOs**
- INP Bihar

Teachers' Position in Schools

- No shortage of teachers – Kerala
- Shortage of teachers:
 - Primary- 6 States
Uttarakhand (21%), Andhra Pradesh (4%), TN(2%), Chandigarh(25%), Karnataka(20%), Sikkim(92%)
 - Upper Primary- 6 States
Uttarakhand(2%), Andhra Pradesh(14%), TN(3%), Chandigarh(26%),Karnataka(17%), Sikkim(89%)
- INP - 9 States
Goa ,Gujarat, Delhi, A&N, Bihar, Nagaland, Puducherry, Punjab, Daman & Diu)

Textbook Distribution

- Within one week in all schools - 5 States
Daman & Diu, Kerala, Nagaland, Sikkim, Gujarat
- Within one month in some schools -10 States
Andaman & Nicobar, Andhra Pradesh, Chandigarh, Delhi, Karnataka, Puducherry, Punjab, Tamil Nadu, Uttarakhand, Goa
- After one month in some schools – 8 States
Andaman & Nicobar, Andhra Pradesh, Delhi, Karnataka, Puducherry, Punjab, Uttarakhand, Goa
- INP - Bihar

Initiatives for Improving Teaching Learning

- Activity based teaching, Identification of low achievers, use of technology and TLM
- Participatory approach, child friendly environment, activities
- Remedial teaching, problem solving
- Individual attention, peer learning
- Use of reference material, library and lab
- Individual attention on low achieving students

Children With Special Needs

- One CWSN per school - **5 States**
UK, Goa, A & N, Sikkim, Daman & Diu
- Two CWSN per school - **4 States**
Andhra Pradesh, Delhi, Tamilnadu, Gujarat
- Three CWSN per school- **3 States**
Karnataka, Nagaland, Punjab
- Four CWSN per school – **1 UT Puduchery**
- More than Four CWSN per school – **2 States**
Chandigarh(39%), Kerala(15%)
- INP - Bihar

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Efforts for Inclusive Classroom

- Equal opportunity to participate in all activities
- Individualized educational plan, modified curricula
- Training in inclusive strategies
- Teaching based on child need and pace
- Encouraging to ask questions
- Gender sensitive/positive behaviour
- Resource Teachers are provided for CWSN

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Coverage of Syllabus

- Schools having more than 60 % Coverage of Syllabus - **12 States**
Chandigarh, Daman & Diu, Delhi, Kerala, Nagaland, Puducherry, Punjab, Sikkim, Tamilnadu, Gujarat, Uttarakhand, Goa
- Schools having Less than 60 % Coverage of Syllabus – **1 State**
Andhra Pradesh 7% schools
- INP - Andaman & Nicobar, Karnataka, Bihar

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Schools having SMCs

- All schools - **11 States**
Uttarakhand, Goa, Andaman & Nicobar, Andhra Pradesh, Chandigarh, Kerala, Nagaland, Puducherry, Punjab, Sikkim, Daman & Diu
- Not all schools - **4 States**
Delhi(89%),Karnataka(96%), Tamilnadu(92%), Goa (87%)
- INP - Bihar

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SMC Trainings

- ❖ All SMCs trained about their role and functioning- 8 States
Uttarakhand, A&N, Andhra Pradesh, Chandigarh, Kerala, Sikkim, D & D, Gujarat
- ❖ Not All SMCs trained about their role and functioning- 3 States
Puducherry (46%), Nagaland(58%), Tamilnadu(94%)
- ❖ Data Inconsistent - Karnataka
- ❖ INP - Delhi, Punjab, Goa, Bihar

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Classroom Observation per CRCC (in Last Quarter)

State	Range
Andaman & Nicobar Islands	50 - 60
Daman & Diu	40 - 50
Nagaland	55 - 60
Uttarakhand	60 - 90
Delhi	06 - 13
Puducherry	30 - 36
Punjab	03 - 180
Sikkim	03 - 06
Goa	20 - 51
Gujarat	01 - 08
Chandigarh	02-03 per day
AP, Bihar, Karnataka, Kerala, Tamilnadu	INP/Inconsistent data

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School Visits by CRC Coordinators

- ❖ More than once in a month - Chandigarh
- ❖ Once in a month - 7 States
A&N, AP, Delhi, Nagaland, Puducherry, Sikkim, Daman & Diu
- ❖ Once in two/three months
Puducherry, Sikkim
- ❖ Inconsistent Data
Kerala, Punjab, Tamilnadu, Uttarakhand, Goa, Gujarat, Bihar

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CRCCs Suggestions to Improve Teaching

- ❖ Participatory approach, Activity based teaching, project work, Linkage to experiences
- ❖ Use of ICT, Utilization of TLM, Worksheets
- ❖ Proper lesson plan, Proper Use of Black Boards, Fruitful Discussion among Teachers
- ❖ Reading, Writing, Mathematical Skills Implementation

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Schools Maintaining Pupils' Progress Record

- ❖ All Schools Maintaining – 11 States
Chandigarh, Daman & Diu, Delhi, Kerala, Punjab, Sikkim, Goa, Uttarakhand, Gujarat, Karnataka, Bihar
- ❖ Some Schools maintaining- 4 States
AP(93%), Nagaland(92%), Puducherry(86%), Tamil Nadu(7%)
- ❖ INP - Andaman & Nicobar

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Coordination (Meetings) of DIETs & DPOs

- ❖ Mostly Held - 8 States
Andhra Pradesh, Daman & Diu, Karnataka, Kerala, Punjab, Tamilnadu, Uttarakhand, Gujarat
- ❖ Need Improvement – 5 States
Delhi, Nagaland, A & N, Puduchery, Sikkim
- ❖ INP - Chandigarh, Goa, Bihar

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Status of CRC Coordinators

- ❖ CRCCs all positions filled up – 6 States
Andaman and Nicobar, Andhra Pradesh, Chandigarh, Kerala, Punjab, Sikkim
- ❖ CRCCs vacancies exist – 7 States
Daman&Diu(100%), Puducherry(76%), Uttarakhand(49%), Gujarat(15%), Delhi(11%), Tamil Nadu(10%), Nagaland(7%)
- ❖ INP - Goa, Karnataka, Bihar

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Status of BRC Coordinators

- ❖ BRCCs all position filled up - 4 States
Andhra Pradesh, Kerala, Punjab, Sikkim
- ❖ BRCCs vacancies exist – 8 States
A&N(10%), Delhi(64%), D&D(100%), Puducherry(82%), Uttarakhand(42%), Gujarat(5%), Tamilnadu(3%), Nagaland(18%)
- ❖ INP - Goa, Karnataka, Chandigarh, Bihar

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State Resource Group (SRG)

❖Thirteen States have State Resource Groups

AP, D&D, Karnataka, Kerala, Punjab, Uttarakhand, Gujarat, Delhi, Nagaland, A & N, Puduchery, Sikkim, Chandigarh,

❖Formation of SRG in process in Tamilnadu

❖INP- Goa, Bihar

33

Learners' Achievement

Mathematics: Needs Improvement *

❖At Primary Level : 40% States

A&N, A.P, Delhi, Nagaland, Sikkim, Uttarakhand.

❖At Upper Primary Level: 65% States

A.P, Chandigarh, Delhi, Goa, Nagaland, Puducherry, Punjab, Sikkim, Uttarakhand

*Primary Level – More than 50% children having lower Grades B&C

Upper Primary Level - More than 50% children having lower Grades B,C,/C,D,E

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Learners' Achievement

Language : Needs Improvement

❖At Primary Level : 55% States

A&N, AP, D&D, Delhi, Nagaland, Puducherry, Sikkim, Uttarakhand

❖At Upper Primary Level: All States

A&N, A.P, Chandigarh, D&D, Delhi, Goa, Karnataka, Kerala, Nagaland, Pudduchery, Punjab, Sikkim, T.N, Uttarakhand

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Learners' Achievement

EVS and Social Science: Needs Improvement

• EVS at Primary Level : 53% States

A&N, A.P, D&D, Delhi, Nagaland, Puducherry, Sikkim, Uttarakhand

• Social Science at Upper Primary Level: 53% States

A.P, Chandigarh, Delhi, Nagaland, Puducherry, Punjab, Sikkim, Tamilnadu

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Learners' Achievement

Science: Needs Improvement

At Upper Primary Level: 50% States

**A.P, Chandigarh, Delhi, Goa, Nagaland,
Punjab, Sikkim**

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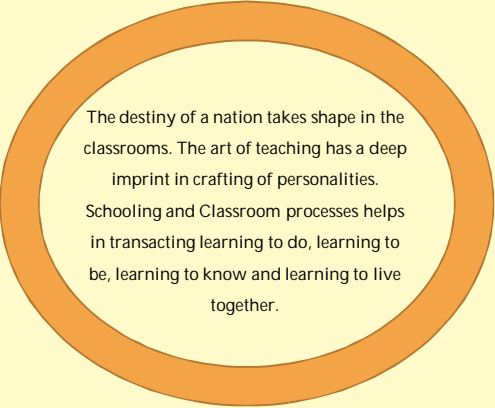
Key Problems

- High PTR in some schools of peripheral areas
- Vacant position in DIETs
- OoSC Mainstreaming
- Capacity building of resource persons at block and district levels
- Professional preparation of teachers
- Lack of well equipped laboratory and library

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PROMOTING GENDER SENSITIVITY IN CLASSROOM : SHARING EXPERIENCE

Prof. Gouri Srivastava
Head
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NCERT



The destiny of a nation takes shape in the classrooms. The art of teaching has a deep imprint in crafting of personalities. Schooling and Classroom processes helps in transacting learning to do, learning to be, learning to know and learning to live together.

INTRODUCTION

Classroom is a designated space where teaching and learning takes place. It is found in all type of educational institutions, managed by private, government and government aided. It is located in multiple contexts. Classrooms have no specification. They are flexible and vary from village to village, block, district and state. Provision in classrooms differ. They include ventilation, TLM, availability of physical space, sitting arrangements etc. The soul of classroom is the pedagogical processes.

TYPES OF CLASSROOMS IN DIFFERENT CONTEXTS OF INDIA

- ▣ Small Size
- ▣ Large Size
- ▣ Multigrade Classrooms
- ▣ Non-functional Classrooms
- ▣ Temporary Classrooms

TOOL FOR ASSESSING GENDER SENSITIVITY IN CLASSROOM PROCESSES

S. No.	Classroom Management	Boys	Girls	Both
1.	Sitting Arrangements <ul style="list-style-type: none"> • Random • Mixed • Separate 			
2.	Teaching Learning Materials available <ul style="list-style-type: none"> • Textbooks • Supplementary/ Resource materials • Stationery items • Any other 			
3.	Bulletin Boards <ul style="list-style-type: none"> • User friendly • Not user friendly 			
4.	Roles Assigned <ul style="list-style-type: none"> • Boys • Girls • Both 			
5.	Monitors <ul style="list-style-type: none"> • Boys • Girls • Both 			

S. No.	Classroom Management	Boys	Girls	Both
6.	Assignment of Responsibility			
7.	Cleaning Classrooms, Blackboard, Bulletin Board, any other			
8.	Getting water, chalk, duster, copies, books, registers, any other			
9.	Leaders of different groups Academic groups such as – Debates and quiz, reading, writing, essay, any other			
10.	Cultural group such as – Music, dance, any other			
11.	Any other activities			
12.	Participation in classrooms			
13.	Questioning			
14.	Answering <ul style="list-style-type: none"> • Frequently • Sometimes • Not responding 			
15.	Providing Additional Information <ul style="list-style-type: none"> • Frequently • Sometimes • Not responding 			
16.	Any other			

HIDDEN CURRICULUM IN CLASSROOMS (FOR TEACHER)

S. No.	Criteria for Hidden Curriculum	Boys	Girls	Both
1.	Eye Contact			
2.	Hand Gestures			
3.	Facial Expressions			
4.	Language used for communication <ul style="list-style-type: none"> • Pleasant • Derogatory • Harsh • Satisfactory • No comments 			
5.	Posture <ul style="list-style-type: none"> • Sitting • Standing • Walking 			
6.	Any other			

VISIBLE HUMAN VALUES IN TEACHING AND LEARNING PROCESSES

S. No.	Values	Related to Content	Specially imparted by mentioning role models and their contributions	Through Activities	Personal Examples	Any other
1.	Sharing and carrying					
2.	Equality between sexes					
3.	Valuing each other's contributions (men/ women)					
4.	Dignity of labour					
5.	Tolerance					
6.	Bravery					
7.	Honesty					
8.	Patriotism					
9.	Non-violence <ul style="list-style-type: none"> • Speech • Action 					
10.	Any other					

SPECIAL TRAINING AND AGE APPROPRIATE ADMISSION OF OUT-OF-SCHOOL CHILDREN UNDER RTE ACT, 2009

Dr. Pushpa Mandal
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PROVISION IN THE RTE, ACT

- For mainstreaming of OoSC,
“Where a child is above six years of age has not been admitted in any school or though admitted, could not complete his or her elementary education, then, he or she shall be admitted in a class appropriate to his or her age.”
- In this endeavor, it further states,
“Provided that where a child is directly admitted in a class appropriate to his or her age, then, he or she shall, in order to be at par with others, have a right to receive special training”.

WHY SPECIAL TRAINING & FOR WHOM?

- For OoSC – may be non-enrolled, drop outs
- May be from various categories such as -
 - Children living or working in urban slums, in streets, on railway platforms or construction sites
 - Engaged as domestic workers, child labourers,
 - Working for wages in dhabas, mechanic shops, rag pickers and shoe-shine boys.
 - Children who are involved in sex trade and
 - Migratory children (whose parents migrate for seasonal employment)
- After benchmarking new entrants, suitable interventions and Special Training has to be undertaken to bridge the gaps and to place them in the age appropriate classes facilitating their mainstreaming.
- For learning enhancement and developments of learning attitudes to adjust socially, emotionally and above all academically.

DESIGN OF SPECIAL TRAINING: AS PER MODEL RULES

- The SMC/ Local Authority, and MCD in rural/urban areas shall identify children requiring special training.
- The Special Training (ST) shall be based on specially designed age appropriate learning material, approved by Academic Authority.
- It will be organized on the school premises, or through classes organized in safe residential facilities.
- ST will be provided by teachers working in the school or by Teachers specially appointed for the purpose.
- Duration of ST will be for a minimum period of 3 months which may be extended based on periodical assessment for a maximum period of 2 years.
- After admission into age-appropriate class such children will continue to receive special attention.

SPECIAL TRAINING UNDER RTE – WHAT & HOW?

- Special Training is a complex activity and a challenging job for all concerned.
- One of the first step that must be undertaken is authentic identification of Out-of-school Children and induction in neighborhood school.
- Such children when directly admitted in age appropriate class has a right to receive special training to be at par with others
- Mainstreaming of such children into formal schools is to be done through special training of varying durations from three months to twenty four months
- Special Training is a specific intervention which aims at admission of Out-of-School children in age appropriate classes and to integrate the child with rest of the class.
- The Act further states, if situation demands the child shall be entitled to free education till completion of Elementary Education even after fourteen years

AGE APPROPRIATE ADMISSION

- Example: Mala an 8 year old girl, never enrolled in school.
- She comes to a neighborhood school for admission
- To which grade teacher will admit her? In class III as per her age which is natural.
- Now the teacher need to administer some kind of test to assess her abilities at entry level.
- Certainly, the learning assessment need not to be based on text book, but on her ability to understand and make meaning out of her experiences.
- Such children can be good resource to the class with their practical knowledge and understanding of environment and resources.
- Her understanding may be even better than 10 year olds, but her learning gaps are in terms of literacy and numeracy skills. Her reading writing skills can be improved with ST.

- The RTE, Act provides for special training for such children so that they can be admitted to age appropriate classes and cope with disabilities.
- The special training here will help her to bridge her learning gaps and to be at par with children in the same class.
- Along with competencies of class III, Mala need to be provided the competencies of class I & II with ST.
- One of the major objective of special training for such children admitted to age appropriate classes is to enhance the learning levels of these children.
- Moreover, this training will help them to learn and progress with other children in the regular schools.
- Tracking the progress of such children in STC is very important and need to be addressed.

LEARNING MATERIALS FOR SPECIAL TRAINING

- Special Learning support materials/bridge courses developed must be approved by concerned Academic Authority
- Materials will be in consonance with Constitutional values & NCF-2005. However flexibility needs to be maintained
- Such materials should provide scope for the children in creating intensive teaching learning environment, which may accelerate learning
- Curriculum has to be designed in a way so as to enable children to enter the class at an appropriate juncture based on a system of continuous evaluation
- SLSM should include worksheet, flashcards, activity sheets, story books and maths/science kits, etc.

- As far as possible these materials should be contextual and written in an interactive style in child's language.
- Material may be related to textbooks, but not totally textbook based.
- Components from different curricular areas can be presented in an integrated manner.
- 'Curriculum Load' need to be considered by experts and by Teachers.
- Essential learning expectations need to be curled out from curriculum framework.

TRANSACTIONAL STRATEGIES

- Recognizing the scale and time bound nature of the task, it calls for innovative and flexible strategies
- Creating a child friendly classroom environment needs to be ensured, providing range of suitable and appropriate learning opportunities for all age groups in special training centres
- Activities comprising of arts, games, role-playing etc needs to be put in place for learning enrichment
- Children may be heterogeneous in nature, i.e. in age levels, socio-cultural background, maturity.
- S/he may face coping problems.
- Teacher should insure that the child enjoys necessary moral, psycho-social, emotional support in the class room to adjusted in the new set up.

- Child centered approaches should be used.
- Lessons should develop on student's experiences and prior knowledge
- Teachers' behavior determines the kind of psycho-social climate provided to the child.
- The teacher should ensure that the child is provided a range of suitable and appropriate learning opportunities for all age groups. Let the children feel, 'it's different than what we have experienced earlier.'
- Considering the time limit, extensive supplementary material in the form of pictures, charts, maps, puppets etc. should be used. In other words, self learning must be encouraged.

- The teacher will ensure that more and more children participate in the learning process and enjoy learning as well.
- Children's queries and curiosity must be addressed.
- To meet the basic learning needs, children should be provided with academic, cultural and social education through a host of activities in the classroom.
- It is generally found that children are good in motor skills, as such, learning activities such as art/craft, games, role playing etc. should be an integral part.

SPECIFIC SUGGESTIONS FOR ENHANCING LEARNING

- Such children being of special categories & different age groups with varying learning gaps & capabilities, teaching learning materials, have to be specially & carefully designed, profusely illustrated.
- Materials have to be flexible in nature enabling accelerated learning of such children.
- It has to be interesting & interactive to arouse learning inquisitiveness in them facilitating learning faster.
- Verbal communication with such children should be given more importance for their participation in learning process, facilitating enhancement of knowledge and skills.

- Earlier experiences in the field of innovative & experimental educational programmes can be banked upon for drawing up successful strategies,
- Role of teachers is crucial in the whole process of special training in terms of adjustment of these children, for learning enhancement, assessment and mainstreaming.
- Training components should include all these such pedagogical aspects to empower teachers to handle such situation.
- Monitoring and assessment of children performance from time to time can be an effective measure for learning enhancement.
- Learning conditions in STC need to be based on *Individualized Educational Plan* for each & every child could be a significant interventions in STC.

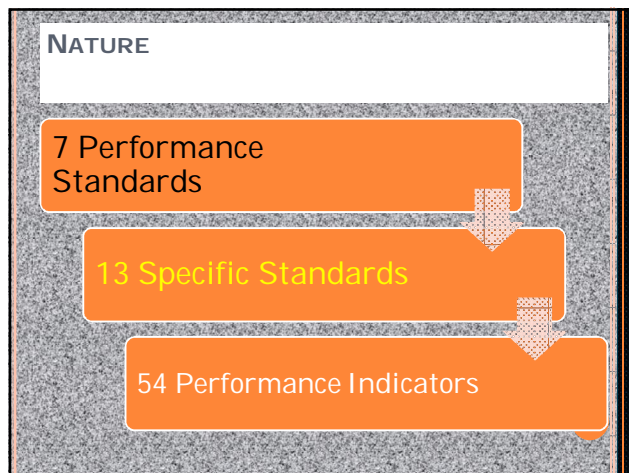
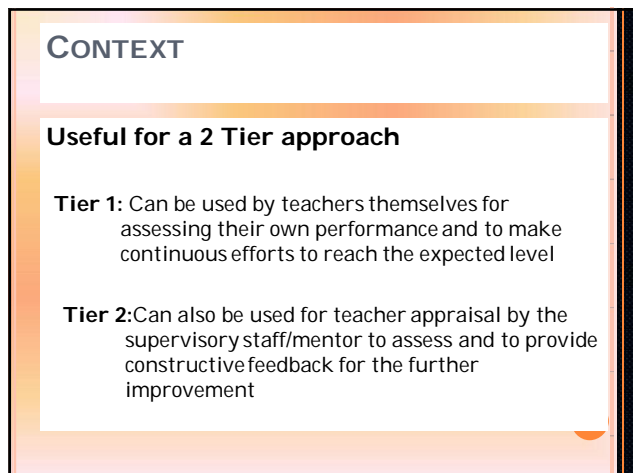
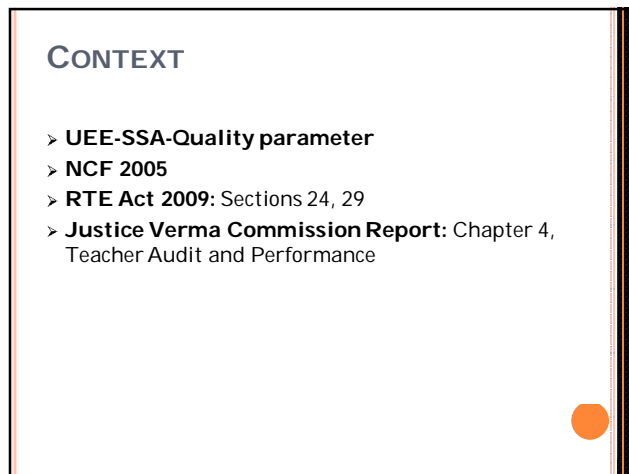
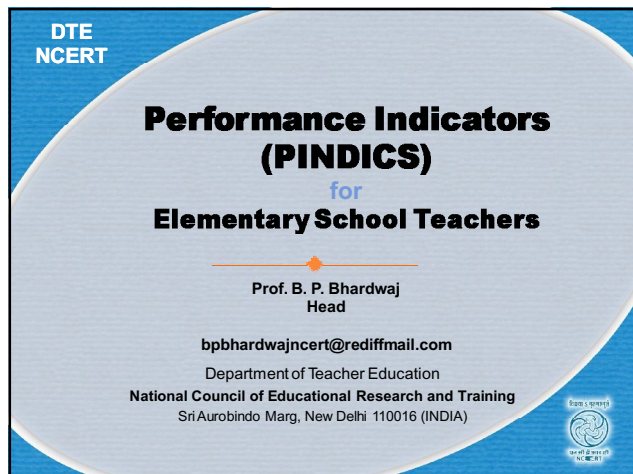
ASSESSMENT

- Assessment should be in a continuous process. It should be a guiding factor in helping children to achieve the goals through variety of assessment tasks.
- Assessment must be individualized and flexible to motivate children to learn and progress through learning activity at their own pace.
- Child's strengths and difficulties can be identified during assessment for further additional academic instructions.
- Assessment tools should be based on meaningful activities related to life and context of the child, both group and individual.
- Observation can also be an important assessment tool.
- Assessment technique such as questioning, story telling, role play are also interesting tool for assessment.

LAST BUT NOT THE LEAST...

- Role of SMC members, concerned Head Teachers/Parents and the community at large has a significant role to play in the educational development of their children.
- Only schooling is not learning. The child has to participate in the learning activities.
- The teacher or education volunteer should ensure that each and every child in STC's is learning and progressing.





PERFORMANCE STANDARDS (PS)

Performance Standards communicate expectations for each responsibility area of the job performance

PINDICS includes the following performance standards

- PS1-Designing Learning Experiences for Children
- PS2-Knowledge and Understanding of Subject matter
- PS3-Strategies for Facilitating Learning
- PS4-Interpersonal Relationship
- PS5-Professional Development
- PS6-School Development
- PS7-Teacher Attendance

CRITERIA OF ASSESSMENT

Each performance indicator is rated on a four point scale ranging from 1 to 4 indicating the levels of performance

- Not meeting the expected standard - 1
- Approaching the expected standard - 2
- Approached the expected standard - 3
- Beyond the expected standard - 4

ASSESSMENT AND FEEDBACK

- **By Teacher :** Based on the assessment of PINDICS prepare a self assessment report highlighting the points that he/she feel satisfying and the areas in which need help for improvement
- **By Head Teacher/Supervisor:** Based on the profile emerging from teachers self assessment and observation, prepare a report on teacher's performance in the specific standards (PINDICS). Also plan action points for improving their performance

ASSESSMENT AND FEEDBACK

- CRCC will compile the performance of every teacher on **Teacher Performance Sheet** based on feedback of teacher and head teacher
- **Consolidation Sheet - CRC Level**
CRCC will compile and consolidate performance of teachers on consolidation sheet of each school to explore the area in which support is required.
- *The consolidation sheet can be collated at different levels, viz, CRC, Block, District and State*

LEARNING INDICATORS AT THE ELEMENTARY STAGE

1

Rationale

- 12th Five year plan main priorities
 - Access
 - Equity
 - Quality
 - Governance
- Major emphasis of the plan on Improving 'Learning Outcomes'/Learning Levels
- Joint-Review Missions (JRM)s reports – learning achievement of children not desirable level
- Other educational reports/survey also confirm the low Learning Level

2

Efforts / Initiatives

- NPE 1986 and POA 1992 emphasised on
 - learning levels needs to be laid down
 - children's achievement periodically be assessed to track progress in various curricular areas
 - timely measures need to be taken for improvement as a follow up

3

Efforts / Initiatives

- Steps Initiated
 - MLLs continuum in 1988 by NCERT, 1992 MHRD NCERT class wise & subject wise
 - States adapted/adopted and Rolled out all States / UTs in 1993
 - Implemented across country 8-10 years

4

Revisited Curriculum, syllabi & Textbooks

- Competencies : sub-competencies, sub-skills, not provided holistic perspective of learning (**viewed learning as linear process**)
- Focus/target of educational achievement became 'MLLs', not critical/experimental mind of children
- Treatment of competencies – curricular and co-curricular (**cognitive and non-cognitive**)
- Emphasis more on outcomes than on process of learning

5

Revisited Curriculum, syllabi & Textbooks

- More teacher-centric than child-centric
- NCF -05 focuses on 'process of learning'
- Primacy to child's experiences
- Construction of knowledge (child's active role)
- Social interaction/Social constructivism
- Child's active participation in process of learning
- Teacher's role not as 'tutor' but as facilitator

6

Revisited Curriculum, syllabi & Textbooks

- Emphasis on child's engagement in learning activities/process
- NCF-05 does not provide class-wise learning outcomes/curricular expectations
- Curricular expectations/learning outcomes are not to be used as assessment standards (testable construct)

7

Need for Learning Outcomes / Curricular Expectations

- Curricular expectations are long-term goals of curriculum i.e. abilities, skills/processes, attitude, values cannot be achieved in shorter duration
- Broadly, it indicates what each child needs to know, able to do and which dispositions need to acquire over a period of time
- Key stage reflects previous age-level curriculum – provides holistic view

8

Learning Outcomes/Curricular Expectations : Why Stage-wise??

- Stage-wise – reduces chances viewing as rubrics', 'outcomes based learning', summative nature of learning
- Stage-wise – reduces washback effect on curriculum (macro to micro level)
- Various Learning theories / child developmental theories also provide stage- specific changes / features.

9

NEED FOR LEARNING INDICATORS

- Essential level of learning as postulated in NPE
- Developing indicators help in
 - Understanding learning as process
 - to understand learning process as a continuum
 - Providing reference point for parents, teachers to understand a 'child'
- Providing a framework for feedback process and reporting progress Takes into cognizance the way children learn i.e *observation, oral expression, written work, experimentation, etc.*
- Progress on learning outcomes can be assessed through *learning indicators*

10

NEED FOR LEARNING INDICATORS

- Learning Indicators are providing evidences of learning of various aspects of child behaviour
These would only be achieved by following appropriate pedagogical processes
- Check – points to assess child's learning at different points of time.
- Learning Indicators view different aspects of child's behaviour holistically.
 - Facilitating in monitoring child's progress
 - Supporting evidence based learning
 - Objectivity in learning and assessment process.
 - Providing criteria for assessment.

11

Nature of Learning Indicators

- Identified class-wise
- Not as assessment indicators or standards
- Check points/pointers for teachers to follow child's progress at different point of time
- Process indicators covers various aspects of child behaviour

12

Present Exercise

- PAB meeting for NCERT's activities suggested:
 - Develop learning indicators and identify curricular expectations at the elementary stage
 - NCERT initiated process in June 2013
 - In-house meetings to evolve the framework
 - Issues and concerns discussed in International workshop organized at Hotel Clarion in July 2013 (David Scott, U.K.)
 - Feedback received is on draft.
 - Organized in-house workshops/meetings to evolve the indicators.

13

Coverage

- Elementary Stage (Classes I-VIII)
- Curricular areas
 - Hindi (I - VIII)
 - English (I - VIII)
 - Urdu (I - VIII)
 - Mathematics (I - VIII)
 - EVS (III - V)
 - Science (VI - VIII)
 - Social Science (VI - VIII)
 - Arts Education (VI - VIII)

14

Preparation & Presentation of Document

- Preamble: explains
 - Why this document
 - What does the document include
- Each curricular area covers:
 - Overview/introduction of the subject in context of NCF-05 and constructivist perspective
 - Presentation of curricular expectations, pedagogical processes and Learning Indicators(Class-wise).
 - Guidelines for users

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Future Course of Action

- shared with MHRD and World Bank
- Uploaded on NCERT website (9th January, 2014)
- sent to all SCERTs/SPO, other institutions/ RIEs for feedback/observations (10th January, 2014) will be shared in NRG.
- Field trialing will be done in some sample schools/ DM schools/KVS /govt. schools/other categories of schools. (January ,2014- February, 2014)
- Consolidation of feedback/suggestions for further improvement (February, 2014)
- Developing final version for printing (to be sent for printing 2nd week of March, 2014)

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Implementation Plan

- **Proposal will be developed for PAB 2014-2015.**
 - Five regional meetings/workshop to share with all States and UTs with the support of RIEs.
 - One meeting/workshop for UT without legislature.
 - Sharing meetings with KVS,DM Schools
 - Hindi Version
 - Supporting States/UTs in developing Learning Indicators.

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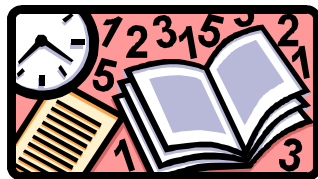
Thank You....

INCLUSIVE EDUCATION AND ADAPTING THE CURRICULUM

Prof. Anita Julka

Department of Education of Group with Special Needs

N.C.E.R.T

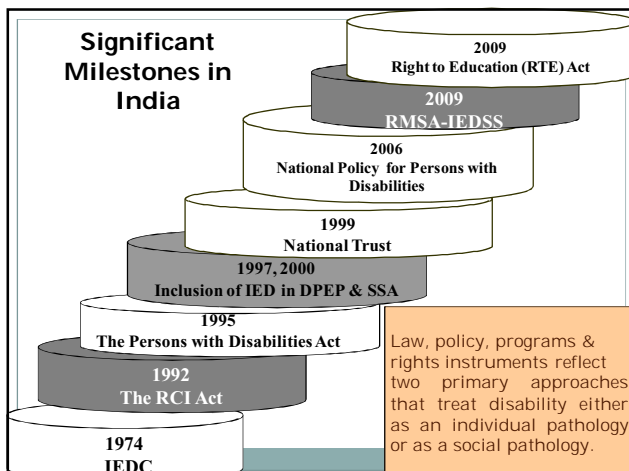


Inclusive Planning

"True inclusive education requires collaborative teaming to plan individual student's daily schedules and collaborative instruction and to incorporate special education services and supports into the classroom. It *does not* mean students no longer receive specialized instruction and related services, or that students are thrown into the mainstream"

-(Janney & Snell, 2000)

Significant Milestones in India



Inclusion is a Right

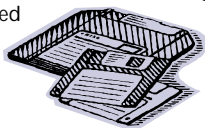
RTE (Amendment) -A child with disability has the same right to pursue free and compulsory elementary education. A child with "multiple disabilities" and a child with "severe disability" referred in National Trust may also have the right to opt for home-based education.

UNCRPD- Article 24 - Reasonable accommodations and support should be provided for individual requirements and programmes to enable their effective social and academic participation



Why Adaptations

- The composition of classrooms has changed. Students with varying levels of abilities can not, and should not, be taught in the same manner.
- Without adaptations, some students would never be challenged, while others may never experience success
- The NCF (2005)- curriculum must be "an inclusive and meaningful experience for children". Teachers must be trained to address the learning needs of all children including those who are marginalized and disabled



Nine Type of Adaptations

- **Quantity** Adapt the number of items/activities student will complete prior to assessment . *For Eg.* Reduce the number of social studies terms at any one time. Add more practice activities or worksheets
- **Level of Support** Increase the amount of personal assistance to keep the student on task . Enhance adult-student relationship; use physical space and environmental structure. *For eg:* Assign peer tutors or cross-age tutors.
- **Time** Adapt the time allotted for learning, or testing. *For eg.:* Individualize a timeline for completing a task; pace learning differently (increase or decrease) for some learners
- **Output** Adapt how the student can respond to instruction. *For eg:* Instead of answering questions in writing, allow a oral response, allow students to show knowledge with hands on materials



Cont.

- **Input** Adapt the way learner is taught. *For eg.:* Use different visual aids; enlarged text; concrete examples, hands-on activities; cooperative groups, pre-teach key concepts or terms before the lesson.
- **Difficulty** Adapt the skill level, problem type, or the rules on how the learner may approach the work. *For eg:* Allow the use of a calculator ; simplify task directions;
- **Substitute Curriculum-** "**functional curriculum**" Provide different instruction and materials to meet a learner's individual goals. *For eg:* During a language lesson a student is learning toileting skills.
- **Alternate Goals** Adapt the goals or outcomes while using the same materials. . *For eg:* In a social studies lesson, expect a student to locate the colours of the states on a map, while other students learn to locate each state and name the capital
- **Participation** Adapt the extent of active involvement in the task. *For eg:* In geography, have a student hold the globe, while others point out locations. Ask the student to lead a group. Have the student turn the pages (nursery).



Adapting Curriculum & Instruction in Inclusive Classrooms: A Teachers Desk
ISDDCSCT Publication, Diana Browning Wright, *Teaching & Learning 2005*

Key Differences between Assessment and Evaluation

Dimension of Difference	Assessment	Content
Content: timing, primary purpose	<i>Formative:</i> ongoing, to improve learning	<i>Summative:</i> final, to gauge quality
Orientation: focus of measurement	<i>Process-oriented:</i> how learning is going	<i>Product-oriented:</i> what's been learned
Findings: uses thereof	<i>Diagnostic:</i> identify areas for improvement	<i>Judgmental:</i> arrive at an overall grade/score

Some Examples of CCE

In a mixed ability classroom, accept alternate responses - for auditory, accept responses in monosyllables

Allow student to point to picture/s as demonstration of learning.

Activities such as matching or checking answers can be done with the help of real objects

Allow students with speech processing delays to demonstrate learning by use of pictures or stamps e.g. identifying key vocabulary words discussed in a lesson, like class 1 English lesson *Mittu and the Yellow Mango*, provide the student with pictures of parrot, crow or mango asking them to stamp appropriate picture for specific word/s.

use flashcards to introduce words or to construct a grammatically correct sentence

Cont.

Replace tracing of alphabets activities with cut-outs of alphabets allowing student to explore the contour & shape of an alphabet more closely



A Case Study of Vikram

Vikram is a 12 year old school student. He is at or above level in all his subjects except reading. What supplementary adaptations could be made to help Vikram?



Adaptations

Full participation in regular curriculum

However, he is allowed modifications such as other student notes, extra time, etc.

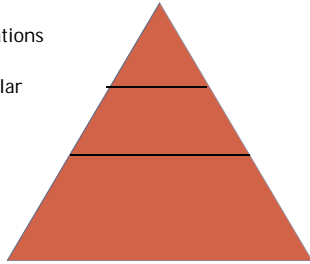
Resource sessions in addition to regular curriculum to address reading difficulty

Levels of Accommodation

--3rd level: Individualized adaptations & accommodations

--2nd level: Inclusive curricular & instructional practices

--1st level: Inclusive School culture



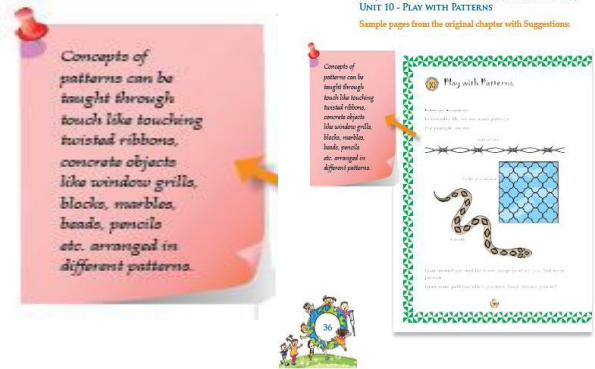
"Accommodating schools and classrooms decrease the need for individualized adaptations" (Janney & Snell, 2000)

ADAPTING A SAMPLE CHAPTER FOR VI

SUBJECT: MATHEMATICS CLASS-I (PAGE 144 TO 152)

UNIT 10 - PLAY WITH PATTERNS

Sample pages from the original chapter with Suggestions



QUOTES

We do not have the time to explain each and every concept, we need to have support of a special educator

Since these children do not have less IQ, hence they can fit into the existing classroom processes

Factors like large Classroom sizes, maintaining discipline, vast syllabus, emphasis on Marks, only few included students act as constraints

They like Science. But they simply cannot sit inside a classroom to learn it. So we started taking classes in the open where they are at ease

Chapter Adapted for Hearing Impairment:

Children with hearing impairment get attracted to and learn better with PICTURES, FLASH CARDS, VISUAL ILLUSTRATIONS, REAL OBJECTS. For example, in the following lesson, teachers can use FLASH CARDS to explain certain nouns and verbs. Along with this some other strategies can be used to explain abstract concepts.

Mittu was a parrot.



A green parrot.



With a red beak.



IMPROVEMENT OF SCIENCE AND MATHEMATICS EDUCATION

AT UPPER PRIMARY STAGE (CLASSES VI-VIII)



DESM, NCERT

THE MAJOR FOCUS IN THE PRESENTATION WILL BE ON

- ✕ Curricular Materials Developed
- ✕ Strategies for Dissemination of Developed Materials
- ✕ Inputs to be given during the Orientation Programme
- ✕ Issues and Concerns

EXISTING CURRICULAR MATERIALS

- ✕ Textbooks in Science and Mathematics
 - ✕ Exemplar Problems in Science and Mathematics
- These books provide large number of quality problems in various forms and format with varying levels of difficulty.

- ✕ Source Books on Assessment in Science and Mathematics
These books suggest systematic, meaningful and purposeful methods of assessment.
- ✕ Project Books in Environmental Education
These books have been prepared for students to enable them to obtain first hand information about environmental issues and look for their solutions.

- ✖ Teacher's Handbook in Science for Class VI and the Handbooks for Classes VII & VIII are in progress.
- ✖ Training Packages for Teachers without Substantial background of Science and Mathematics
- ✖ Laboratory Manual in Mathematics
- ✖ Pedagogy of Mathematics Textbook for B.Ed.
- ✖ Pedagogy of Science Textbook for B.Ed - Physical Sciences

- ✖ Laboratory Manual in Science has been sent for Publication.

This laboratory manual is complementary to the textbooks of science. It aims at enhancing children's comprehension of science concepts and also acquiring basic experimental skills.

- ✖ Learning Material in Science for Lateral Entry Students has been sent to Publication and the Material for Mathematics is under progress.

The learning materials will cater to the needs of the lateral entry learners. It is hoped that these materials will bring such learners at par with children already in the school system.

- ✖ Online Certificate Programme for Teaching of Elementary School Science (CTES) - under progress.

This online course will help both existing and future teachers for better understanding of science. It will also create and collate new educational resources for teaching-learning of science making use of good practices and experiences all over the country, thus enriching science education.

- ✖ Resource Materials on Management of Disaster (under progress)

STRATEGIES FOR DISSEMINATION OF DEVELOPED MATERIALS

- ✖ Orientation Programmes for key functionaries at Upper Primary Stage for different States & UTs on the dissemination of the developed materials.
- ✖ The developed material has been uploaded on the NCERT website.

- ✕ Developed materials and kits are shared during National Level Meetings/Workshops.

- ✕ Developed materials are shared through Audio/Video conferencing.

- ✕ Displaying and publicizing the developed materials and kits in State Level Science, Mathematics and Environment Exhibition and Jawaharlal Nehru National Science, Mathematics and Environment Exhibition for children.

- ✕ Publicizing the developed materials through 'A Quarterly Science Journal' published by DESM, NCERT.

INPUTS GIVEN DURING THE WORKSHOPS

- ✕ Conducted workshop for SCERT faculty of different States
 - Discussed about Integration of activities in Science and Mathematics
 - Use of Science and Mathematics Kits during teaching –learning of Science and Mathematics.
 - Familiarization of Constructivist approach.
 - Awareness about Environmental Issues which have been adequately infused in the Textbooks

- Issues related to Assessment and Evaluation.
- Familiarity with the Role of ICT in School Education
- Oriented about Research in Science and Mathematics Education at School Level
- Oriented about Gender Concerns in School Education
- Oriented about Teaching-Learning of Science and Mathematics in Inclusive Classroom
- Oriented about Learning Indicators and Performance Indicators

- ✖ Similar Orientation Programmes for DIET faculty of different States will be held in five RIEs sometime in January- February
- ✖ These DIET faculty are expected to orient teachers of their respective states

Out of twenty five States, only nine states participated. WHY?

ISSUES AND CONCERNS

- ✖ Large classroom sizes and infrastructure
- ✖ Management of inclusive classrooms
- ✖ Issues related with the Lateral Entry Children
- ✖ Orientation of teachers – face to face and online modes

- ✖ Strengthening of activity rooms/corners for science and mathematics
- ✖ Strengthening of libraries for children
- ✖ Motivating children for enjoying science and mathematics learning
- ✖ Identification and Nurturance of Talented and Gifted children

- ✖ Establishing and installing Science Parks, Eco-clubs, and Astronomy Clubs etc.
- ✖ Awareness of children towards Environmental Concerns
- ✖ Preparing children to mitigate disasters



National Achievement Survey



A presentation by

Educational Survey Division

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING
Sri Aurobindo Marg, New Delhi 110016 (India)

2014

Overview

- Conducted under the *Sarva Shiksha Abhiyan* (SSA) programme since 2001 at Grade 3, 5, 8 level.
- Sample based survey, designed to check the health of the educational system.
- Standardized tests and questionnaires are used to get learning achievement data and background information.

Objectives

- To study the achievement level of students in different subjects.
- To study the difference in achievement with respect to area, gender and social groups.
- To study the association of intervening variables like home, school and teacher on students' achievement.

Survey Cycles and Coverage

Survey Cycle	Class V	Class VIII	Class III
Cycle I	2001-02	2002-03	2003-04
Cycle II	2005-06	2007-08	2007-08
Cycle III	2009-11	2010-13	2012-13
Subjects tested	<ul style="list-style-type: none"> Mathematics Language Environmental Studies 	<ul style="list-style-type: none"> Mathematics Language Science Social Science 	<ul style="list-style-type: none"> Mathematics Language
Background Questionnaires	<ul style="list-style-type: none"> Student 	<ul style="list-style-type: none"> Teacher 	<ul style="list-style-type: none"> School

Survey Cycles and Coverage

Classes	States/UTs			District		
	Cycle I	Cycle II	Cycle III	Cycle I	Cycle II	Cycle III
Class III	29	32	34	111	254	298
Class V	30	33	31	113	244	271
Class VIII	29	32	33	103	189	285
Classes	School			Teachers		
	Cycle I	Cycle II	Cycle III	Cycle I	Cycle II	Cycle III
Class III	5,293	7,341	7,046	8,533	10,369	14,092
Class V	4,787	6,828	6,411	10,796	14,810	10,851
Class VIII	4,378	9,239	6,722	16,612	24,071	24,486

Steps in NAS

I. PRE CONDUCT	II. CONDUCT	III. POST CONDUCT
<ul style="list-style-type: none"> Planning and Management Curriculum Analysis Item development Development of questionnaires Sampling (piloting) Translation of item pool Piloting of test items Analysis of piloted data and finalization of tools 	<ul style="list-style-type: none"> Sampling for main survey Development of manual for training of field functionaries and administration of tools Printing tools Training of field functionaries Administration of tools 	<ul style="list-style-type: none"> Development of data entry manual Data management: Batching, entry and cleaning* Merging of cleaned files Data analysis and interpretation Reporting

* Data Cleaning

- Codes were checked (State, District, School, Student, Gender, Area, Test Form, Medium).
- Cases with identical pattern of responses, were dropped.
- Students appeared in more than one form of the same subject were dropped.

Improvements in Cycle III

- Framework for assessment used in development of Test items.
- Increased measurement points in each subject area by using multiple test forms—Classes III & VIII : 2 forms and Class V : 3 forms in each subject.
- Scaled score were computed to know the performance of students.



IRT equates the multiple booklets through common anchor items

- Scannable OMR sheets (in class VIII) were used to collect data from the field.
- RIEs faculty is involved in scanning of data.
- Intensive training in data collection was provided to state coordinators and district coordinator.

Key Features of NAS

Item	NAS
Beginning Year	2001-02
Frequency	Follows Cycle of three years
Coverage	
1. Areas	Both urban and rural areas
2. Schools	Government and Govt. Aided Schools only
3. Students	Students of Classes III, V and VIII are assessed.
Assessment	
Objective	Class specific assessment.
Sample /No. of children/ assessed	NAS Cycle 3 Total sample : 4,15,564 Class III: 1,04,374 Class V: 1,22,543 Class VIII: 1,88,647
Content	
Coverage of curriculum	<ul style="list-style-type: none"> Common Core Content (considering all States/UTs) is covered to know overall picture of Students' achievement. Wider and more comprehensive range of measurement points within a content area

Key Features of NAS

Item	NAS
Subject(s) tested	<p>Students are tested in different subjects covering a wide range of domain areas within each subject.</p> <p>Class III : Language (Abilities: Listening Comprehension, Word Recognition and Reading Comprehension)</p> <p>Mathematics (Skills: Addition, Subtraction, Multiplication, Division, Number Placement, Geometry, Patterns, Measurement, Money and Data Handling)</p> <p>Class V : Language (Abilities: Language Elements (Grammar— for state level only) and Reading Comprehension— Locate Information, Grasp Ideas/Interpret, Infer/Evaluate)</p> <p>Mathematics (Skills: Computations (Operations), Geometry, Measurement and Number System)</p> <p>EVS (Content Areas covered: Family and Environment, Food, Shelter, Water, Travel and Real life)</p> <p>Class VIII : Language (Abilities: Language Elements (Grammar— for state level only) and Reading Comprehension— Locate Information, Grasp Ideas/Interpret, Infer/Evaluate)</p> <p>Mathematics (Skills: Number System, Algebra, Ratio and Proportion, Mensuration, Geometry, and Data Handling)</p> <p>Science (Content Areas covered: ● Crop Production, Micro Organism, Cell Structure and Function, Reproduction, Biodiversity ● Force and Pressure, Electric Current and Circuits, Light, Star and Solar System. ● Synthetic: Fibres and Plastic, Metals and Non-metals, Coal & Petroleum and Pollution of Air & Water)</p> <p>Social Science (Content Areas covered: ● Education and British Rule, Women and Reform, The Nationalist Movement, The Revolt of 1857-58, The Establishment of Company Power, Rural Life and Society, Challenging the Caste System and India After Independence. ● Agriculture Preservation and Natural & Man made Resources ● The Constitution, The Judiciary, Parliamentary Government, Social Justice & Marginalized and Economic Presence of Government.</p>

Key Features of NAS

Item	NAS
Methodology	
1. Test administration	School based Survey- in learning environment- paper and pen test
2. Test Development	Common core content areas across the States/UTs are identified in each subject. Then questions are developed and translated. Tests are piloted. Questions (items -satisfying the parameters-Item difficulty, item discrimination and diff-between the groups-gender and Urban/Rural; Item characteristic curve) are selected for final tests.
3. Test Booklet	Multiple Test Booklet
4. Sampling procedure	<ul style="list-style-type: none"> Follows a structured sampling procedure to provide representative sample NAS reports standard errors and standard deviation. Weights are used in analysis.
5. Test conducted by	DIET Students in most of the cases.
6. System of children selection	Uses school data base to ensure they are government school children, and tests them in the learning environment in the school.
7. Data Analysis	NAS looks for association of school, teacher and students' background variables with students' achievements while analyzing the data.
	Uses both CTT (In percentages) and Item Response Theory (IRT-Scaled score)
8. Reporting	Reporting to show 'What Students Can Do' and 'Students Can't Do' in a subject area at a particular grade.
9. Published Results availability	Results and Survey have a time lag of 1 year generally given the rigorous methodology.

Advantages of IRT

- IRT uses a mathematical model to link a student's probability of responding correctly a particular item taking care of two main factors, i.e. the student's level of ability and the item's level of difficulty.
- Analysis in IRT is more complex than traditional methods like Classical Test Theory.
- IRT has many advantages over the traditional methods such as-
 - ✓ IRT measures the true ability of students regardless of different levels of difficulty of tests by calculating the probability of a student to respond to an item correctly.
 - ✓ IRT analysis places students and test items on the same numerical scale. It provides us to create meaningful 'maps' of item difficulty and student ability.
 - ✓ In IRT, the difficulty parameter for an item does not depend on the group of test takers.
 - ✓ In IRT multiple test booklets may be used to increase measurement points in any subject and these can also be linked.
 - ✓ IRT make it possible to compare scores from tests used in different NAS cycles – which may help in monitoring progress in the system over time.

Sampling Procedure : Cycle 3

Sampling decisions

- Only government and government-aided schools were considered.
- 3 stage sample – districts, schools, students.
- The number of districts were selected from a state/UT by using an adaptation of the Finite Population Correction (FPS) formula :

$$n_1 = n_0 / (1 + n_0 / N_1)$$

n_1 = number of districts to be sampled from each state/UT

n_0 = number of districts required to represent infinite population of districts (taken as 20)

N_1 = number of districts in ith state/UT

Sample selection

Class III and V : For NAS Cycle 3, the selection procedure is –

- Select Districts (*Probability Proportionate to Size – PPS with in the state*)
- Select Schools (*PPS within the district*)
- Select Sections and students (*randomly*)

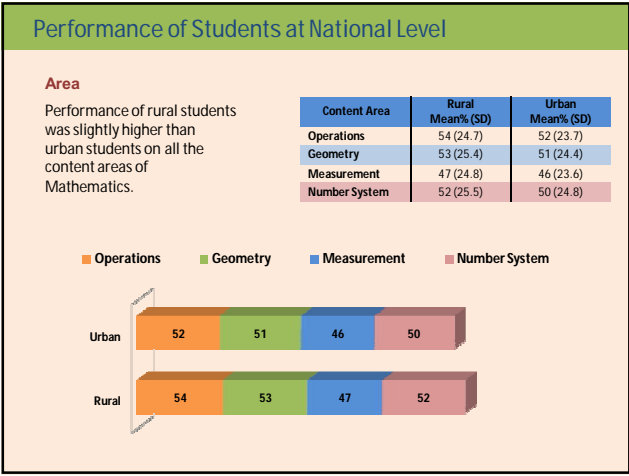
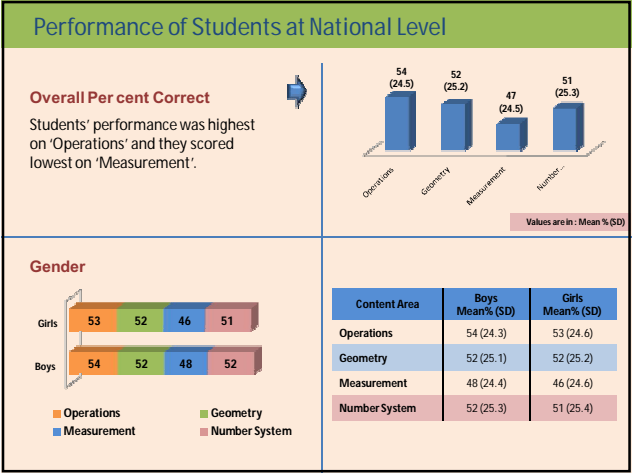
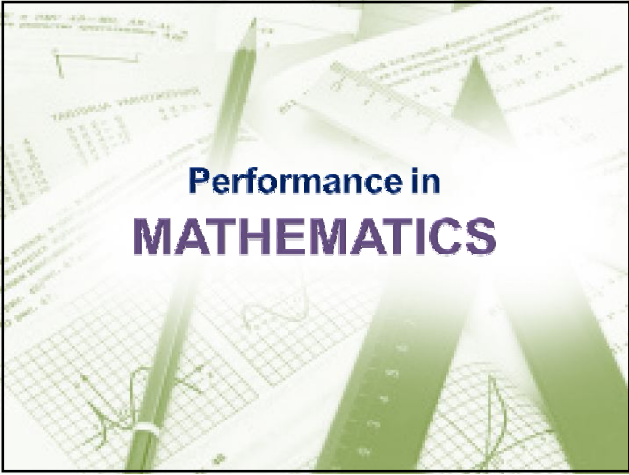
Class VIII

- Upto school selection, the same procedure was used as in Class V
- Selection of students in a school
 - If the school has more than one section, all the sections are considered for sampling purpose.
 - From each selected school, maximum 40 students are randomly selected.



NAS Class V (Cycle 3)

**Subject wise Report :
Highlights**



An example of
**Item Analysis for finding
Learning gaps**

Performance on Number System (26 items) at National Level

Scale Score	Item No.	Item Descriptor	% Correct
325	75	Sum of the fractional number with different denominator	26
292	9	Smallest number divisible by two given number	34
280	49	Computation of difference in place values when digits of number are interchanged	39
278	65	Relationship between divisor and dividend	39
277	39	Computation of divisor using dividend, remainder and relationship	38
276	55	Denominator of equivalent fraction	39
275	59	Average of given data	40
271	56	Computation of time after a given time period	42
271	79	Using fundamental operation in conditional situation	41
261	45	Computation of how much a number is greater/smaller than other	45
261	74	Simple multiplication of numbers	44
261	34	Computation of value using information given in chart form	44
258	5	Difference of two (four digit numbers) with carry	46
258	22	Difference between two numbers with carry (5/6 digit numbers)	46
257	76	Days in week after days interval	48
254	35	Recognising the appropriate operation in given situation	47
252	4	Computation of remainder after division	48
244	36	Relationship between two measures of time	52
240	54	Computation of multiplicative sum of two numbers	54
239	12	Computation of difference of two (4 digit numbers) with borrowing	54
237	20	Computation of difference of two numbers with property of borrowing in simple format	55
229	69	Computation of value given in different units	58
228	64	Simple multiplication sum in simple format	58
227	29	Simple multiplication of numbers	61
192	21	Sum of two digits with carry given in simple format	72
184	44	Sum of two four digit numbers in simple format	76

Performance on Number System (26 items) across the states

National Average : 51 (25.3)									
State	Avg. Scores (Top 25%)		Avg. Scores (Bottom 25%)		State	Avg. Scores (Top 25%)		Avg. Scores (Bottom 25%)	
	Mean	SD	Mean	SD		Mean	SD	Mean	SD
West Bengal	85	12.1	28	13.8	A & N Islands	80	13.4	25	12.3
Uttar Pradesh	85	13.6	20	13.4	Madhya Pradesh	79	12.9	24	12.5
Goa	82	12.2	26	13.8	Karnataka	79	13.2	23	11.6
Haryana	82	12.2	26	13.7	Delhi	79	12.9	24	13.1
Chhattisgarh	81	13.2	19	14.0	Chandigarh	79	11.5	26	12.4
Nagaland	81	13.4	25	12.6	Himachal Pradesh	79	13.0	27	13.1
Tripura	81	13.5	21	14.8	Meghalaya	78	12.2	26	13.0
Bihar	81	12.4	23	13.6	Mizoram	78	11.3	27	12.4
Puducherry	81	17.1	24	12.3	Gujarat	78	13.5	23	12.3
Odisha	81	12.9	23	12.7	Assam	77	13.5	21	12.2
Punjab	81	12.0	27	14.1	Rajasthan	77	13.1	25	12.5
Maharashtra	81	13.3	22	12.0	Sikkim	77	10.7	26	13.1
Tamil Nadu	80	13.6	27	12.5	Daman & Diu	77	13.4	25	12.4
Jammu & Kashmir	80	13.2	24	13.6	Uttarakhand	77	12.7	23	13.5
Andhra Pradesh	80	12.7	27	13.2	Kerala	75	13.0	24	12.0
Jharkhand	80	13.8	22	13.0	Total	80	13.3	24	13

What Students Can Do and Can't Do in Mathematics

What Top 25% Students Can't Do?

Performance of top 25% students was below 50% on the following items:

Item No.	Content Area	Item Descriptor	% Correct
50	Measurement	Computation of least fractional value	32
75	Number System	Sum of the fractional number with different denominator	49
80	Measurement	Perimeter of a given figure	49

What Bottom 25% Students Can Do?

Performance of bottom 25% students was 50% or more on the following items:

Item No.	Content Area	Item Descriptor	% Correct
44	Number System	Sum of two four digit numbers	50
8	Geometry	Sides of a given geometrical figure	54
14		Figure of a triangle	62

Performance within Number System at National Level

Content Area	Item		Percent Correct		
	No.	Scale Score	All Students	Top 25%	Bottom 25%
Addition	44	184	76	93	50
	21	192	72	90	46
Multiplication	64	228	58	84	32
Subtraction	20	237	55	83	25
	12	239	54	84	23
Division	4	252	48	81	22
	65	278	39	68	19

- The order of difficulty is apparent – **Division** is more difficult as compared to **Subtraction**, **Multiplication** and **Addition**
- Scale score increases, the percent correct decreases.

An example of Distractor Analysis in Geometry

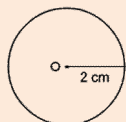
Example:

Q. No. 27 : Computation of diameter of a circle with given radius

Scale Score : 260 Level : Skill 2 (Applying) Avg. Top 25% : 80% Avg. Bottom 25% : 19%

The diameter of the circle given below is...

1. 2 cm
2. 4 cm
3. 5 cm
4. 6 cm



Missing	4
Option - 1	34
Option - 2	45
Option - 3	7
Option - 4	9
Multi. Resp.	1
% Correct	45

Only 45% students could compute the diameter of the circle. About 34% students selected option 1 i.e. 2cm which is the radius of the circle. It clearly indicates that about 55% students were not clear that how to compute diameter if radius is given.

Performance of Top and Bottom 25% students across the states

GEOMETRY (Item No. 27)

Computation of diameter of a circle with given radius

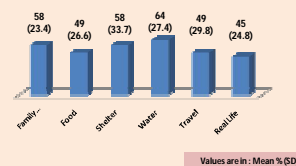
State/UT	Average Top 25%	Average Bottom 25%	State/UT	Average Top 25%	Average Bottom 25%
Uttar Pradesh	89.6%	15.6%	Karnataka	78.7%	17.5%
Puducherry	88.4%	18.4%	Haryana	76.8%	20.5%
Rajasthan	86.9%	22.3%	Sikkim	76.8%	30.6%
Maharashtra	85.2%	19.2%	Odisha	76.4%	18.7%
Tamil Nadu	85.1%	20.3%	Nagaland	76.0%	19.1%
A & N Islands	84.3%	17.6%	Assam	75.5%	21.3%
Daman & Diu	83.9%	12.6%	Chhattisgarh	74.9%	16.2%
Himachal Pradesh	83.8%	15.6%	Bihar	74.6%	18.9%
Gujarat	83.2%	23.9%	Tripura	73.3%	16.7%
Delhi	82.8%	18.4%	Meghalaya	71.6%	15.7%
Kerala	82.5%	19.2%	West Bengal	69.0%	15.8%
Jammu & Kashmir	82.2%	15.7%	Andhra Pradesh	64.4%	20.3%
Jharkhand	81.4%	18.8%	Mizoram	63.4%	18.4%
Madhya Pradesh	80.7%	18.0%	Chandigarh	57.5%	18.1%
Uttarakhand	80.5%	18.6%	Goa	48.4%	22.3%
Punjab	80.5%	18.5%	Total	80.1%	18.9%

Performance in EVS

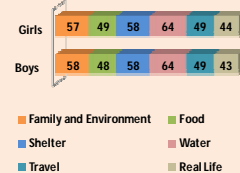
Performance of Students at National Level

Overall Percent Correct

Students' performance was highest on 'Water' and lowest on 'Real Life'.



Gender



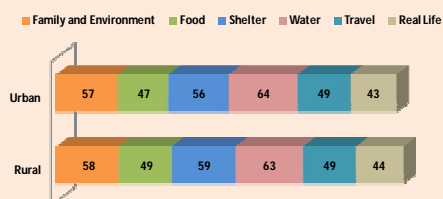
Content Area	Boys Mean% (SD)	Girls Mean% (SD)
Family and Environment	58 (23.2)	57 (23.4)
Food	48 (26.6)	49 (26.6)
Shelter	58 (33.8)	58 (33.7)
Water	64 (27.4)	64 (27.4)
Travel	49 (29.7)	49 (29.9)
Real Life	43 (24.7)	44 (25.1)

Performance of Students at National Level

Area

Performance of rural students was slightly higher than urban students on all the content areas of EVS, except 'Water' and 'Travel'.

Content Area	Rural Mean% (SD)	Urban Mean% (SD)
Family and Environment	58 (23.6)	57 (22.7)
Food	49 (26.7)	47 (26.1)
Shelter	59 (33.9)	56 (33.1)
Water	63 (27.6)	64 (26.7)
Travel	49 (30.0)	49 (29.0)
Real Life	44 (25.1)	43 (24.3)



An example of Item Analysis for finding Learning gaps

Performance on Family & Env. (30 items) at National Level

Scale Score	Item No.	Item Descriptor	% Correct
338	70	Importance of forest in human life	34
291	58	Edible part of sweet potato	39
284	43	Process of breathing	41
273	34	Relation between the weather and breathing air	42
269	64	Importance of wild animals in eco system	41
264	27	Stages of seed germination	44
264	36	Measuring instruments used to see small organism	45
256	33	Edible part of carrot	48
254	80	Trends of growth	47
253	78	Interpreting the data given in the graph	48
251	26	Importance of team work	49
250	47	Critical analysis of the family tree	50
249	40	Effects of cutting down of trees	50
246	79	Trends of growth	51
240	45	Relationship in family tree	54
235	11	Relating characteristics of plants with their habitat	56
234	46	Establishing relationships on the basis of family tree	57
228	53	Animals and their habitat	60
225	71	Functions of roots	59
225	72	Animals give birth to babies	59
225	50	Interpret the graph	60
214	77	Breathing in different conditions	65
211	5	Egg laying animals	68
209	51	National game of India	68
203	63	Function of nose	70
197	18	Role of different parts of the plant	73
185	19	Footprints of birds	74
184	2	Habits and habitats of animals	75
182	3	Classifying animals in different groups	79
172	61	Flying birds and their features	81

Performance on Family & Env. (30 items) across the states

National Average : 58 (23.4)									
State	Avg. Scores (Top 25%)		Avg. Scores (Bottom 25%)		State	Avg. Scores (Top 25%)		Avg. Scores (Bottom 25%)	
	Mean	SD	Mean	SD		Mean	SD	Mean	SD
Kerala	89	7.8	36	14.8	Rajasthan	84	10.8	29	12.4
Nagaland	87	9.7	29	12.9	Delhi	84	10.6	31	13.3
Puducherry	86	12.8	29	12.7	Tripura	84	10.1	27	15.2
Tamil Nadu	86	10.0	32	13.5	Bihar	83	10.5	27	13.9
Chhattisgarh	86	10.7	26	14.6	Madhya Pradesh	83	11.0	29	12.6
Uttar Pradesh	85	10.6	26	14.9	Punjab	83	11.5	32	12.7
Maharashtra	85	10.1	31	12.6	Odisha	83	10.1	28	13.6
Goa	85	11.1	34	13.9	Mizoram	83	10.1	33	13.2
Meghalaya	85	10.2	31	12.4	Sikkim	82	9.7	34	12.7
Jharkhand	84	11.0	26	13.5	Uttarakhand	82	10.9	27	13.6
Jammu & Kashmir	84	10.2	27	13.2	Gujarat	82	10.5	31	13.1
West Bengal	84	9.4	33	12.5	Daman & Diu	81	11.1	35	13.8
Himachal Pradesh	84	11.2	30	12.8	Haryana	81	11.0	29	12.4
A & N Islands	84	9.5	30	12.4	Assam	80	9.3	31	13.8
Andhra Pradesh	84	9.8	32	13.5	Chandigarh	80	9.3	32	12.3
Karnataka	84	10.3	30	13.6	Total	84	10.4	30	13.4

What Students Can Do and Can't Do in EVS

What Top 25% Students Can't Do?

Performance of top 25% students was below 50% on the following items:

Item No.	Content Area	Item Descriptor	% Correct
70	Family and Environment	Importance of forest in human life	46
16	Real life	Phenomena of lunar eclipse	47

What Bottom 25% Students Can Do?

Performance of bottom 25% students was 50% or more on the following items:

Item No.	Content Area	Item Descriptor	% Correct
3	Family and Environment	Classifying animals in different groups	50
61	Family and Environment	Flying birds and their features	57

An example of Distractor Analysis in Family & Environment

Example:

Q. No. 36 : Measuring instruments used to see small organism

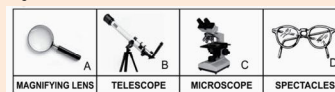
Scale Score : 264

Level : Skill 2 (Applying)

Avg. Top 25% : 79%

Avg. Bottom 25% : 21%

Which of the following instrument is used **best** to see very small organisms?



1. A
2. B
3. C
3. D

Missing	5
Option - 1	21
Option - 2	15
Option - 3	45
Option - 4	13
Multi. Resp.	1
% Correct	45

Only 45% students could identify correctly that microscope is used to see very small organisms among other instruments. However 21% students were confused and they opted magnifying glass for seeing very small organism. The reason may be that they have not seen microscope whereas, they are getting opportunity to observe use of magnifying glass in their real life.

Performance of Top and Bottom 25% students across the states

FAMILY AND ENVIRONMENT (Item No. 36)

Measuring instruments used to see small organism

State/UT	Average Top 25%	Average Bottom 25%	State/UT	Average Top 25%	Average Bottom 25%
Goa	100.0%	22.9%	Mizoram	78.4%	40.9%
Sikkim	92.5%	32.4%	Jharkhand	78.1%	15.1%
Karnataka	88.5%	25.5%	Himachal Pradesh	76.9%	16.9%
A & N Islands	87.0%	25.1%	Tripura	76.5%	17.3%
Nagaland	86.3%	27.6%	Uttarakhand	75.6%	19.4%
Meghalaya	86.3%	28.6%	Chandigarh	74.3%	20.7%
Puducherry	86.0%	16.4%	Bihar	73.0%	14.9%
Uttar Pradesh	85.7%	20.3%	Haryana	72.4%	17.8%
Jammu & Kashmir	85.2%	23.1%	West Bengal	71.9%	22.3%
Maharashtra	83.3%	25.1%	Tamil Nadu	71.8%	16.3%
Rajasthan	81.7%	24.6%	Delhi	70.7%	19.7%
Chhattisgarh	80.8%	15.1%	Andhra Pradesh	70.4%	19.8%
Assam	80.7%	21.7%	Gujarat	68.6%	19.5%
Madhya Pradesh	80.4%	18.1%	Punjab	68.6%	18.0%
Kerala	79.8%	26.3%	Daman & Diu	66.4%	22.6%
Odisha	79.0%	23.6%	Total	78.7%	20.9%



NAS Class III (Cycle 3)

Item based Performance Across the States/UTs

An example of Distractor Analysis in Reading Comprehension

Example:

Q.No. 24: Comprehension-Reading of story (Butterfly)

Scale Score : 269

Read the following passage and encircle the answers of the questions.

You must have seen butterflies. Do you know where a butterfly comes from? The mother butterfly lays an egg on a leaf or plant. A small caterpillar comes out of the egg.

The caterpillar eats leaves and grows bigger. Then the caterpillar attaches itself to a leaf and makes a large cocoon. This is a kind of shell that protects it from other animals. Inside the cocoon it grows wings and legs.

Finally, the cocoon opens and the new beautiful butterfly comes out. It slowly opens its wings and then it flies away.

Which is the correct order of the life cycle of a butterfly?

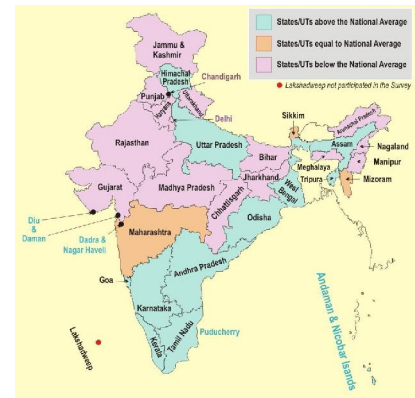
1. Egg-cocoon-caterpillar-butterfly
2. Egg-caterpillar-cocoon-butterfly
3. Caterpillar-egg-cocoon-butterfly

Missing	10
Option - 1	23
Option - 2	44
Option - 3	20
Multi. Resp.	3
% Correct	44

Only 44% students could identify correctly the life cycle of butterfly i.e. 'Egg-caterpillar-cocoon-butterfly'. Remaining students were not clear about the life cycle of butterfly.

State wise performance in Reading Comprehension Item No. 24

State/UT	Item 24
Daman & Diu	69
Tamil Nadu	58
Tripura	58
West Bengal	56
Puducherry	56
Dadra & Nagar Haveli	56
Kerala	50
Assam	47
Goa	47
Himachal Pradesh	47
Andhra Pradesh	46
Odisha	46
Uttar Pradesh	46
Karnataka	45
AA/NI Islands	45
Maharashtra	44
Mizoram	44
Sikkim	44
National Average	44
Delhi	43
Gujarat	43
Jammu & Kashmir	43
Manipur	43
Punjab	43
Haryana	42
Rajasthan	41
Arunachal Pradesh	40
Bihar	39
Jharkhand	39
Chandigarh	37
Chhattisgarh	37
Madhya Pradesh	37
Uttarakhand	37
Meghalaya	36
Nagaland	34



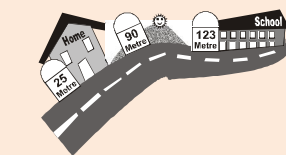
An example of Distractor Analysis in Mathematics

Example:

Q.No. 26: Read simple map (not scaled)

Scale Score : 323

In the given figure, what is the distance from home to school?



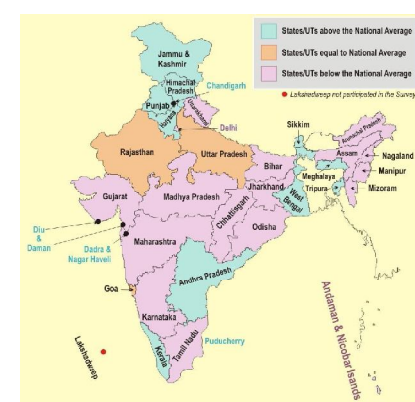
☐ 98 metres ☐ 148 metres ☐ 108 metres

Missing	8
Option - 1	38
Option - 2	36
Option - 3	15
Multi. Resp.	3
% Correct	38

Only 38% students could compute the correct distance from home to school. About 36% students added the mile stone at the home with the mile stone at the school.

State wise performance in Mathematics Item No. 26

State/UT	Item 26
Daman & Diu	52
Andhra Pradesh	50
Kerala	47
Puducherry	47
West Bengal	44
Chandigarh	42
Dadra & Nagar Haveli	42
Jammu & Kashmir	41
Haryana	40
Himachal Pradesh	40
Sikkim	40
Tripura	40
Meghalaya	39
Punjab	39
Goa	38
Rajasthan	38
Uttar Pradesh	38
National Average	38
Jharkhand	37
Manipur	37
AA/NI Islands	37
Assam	36
Gujarat	36
Uttarakhand	36
Arunachal Pradesh	35
Chhattisgarh	35
Mizoram	35
Bihar	34
Delhi	34
Karnataka	33
Maharashtra	33
Madhya Pradesh	31
Tamil Nadu	31
Nagaland	30
Odisha	28





NAS Class VIII (Cycle 3)

Item based Performance Across the States/UTs

An example of Distractor Analysis in Mathematics

Example:

Q.No. 67: Laws of exponents and powers

Level: **Skill 2 (Applying)**

Scale Score : **314**

What should be subtracted from 37^2 to make it 35^2 ?

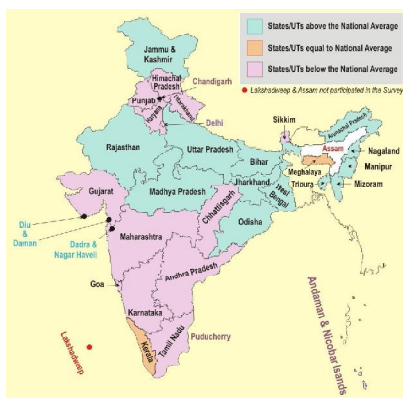
1. 2
2. 24
3. 72
4. 144

Missing	3
Option - 1	44
Option - 2	15
Option - 3	13
Option - 4	24
Multi. Resp.	1
% Correct	24

Only 24% students could respond correctly i.e. option 4 (144). However about 44% students simply subtracted the base numbers and find out answer as option 1 (2), i.e. $37 - 35 = 2$.

State wise performance in Mathematics Item No. 67

State/UT	Item 67
Mizoram	49
Uttar Pradesh	47
Dadra & Nagar Haveli	40
Jammu & Kashmir	37
Mizoram	37
Madhya Pradesh	36
Tripura	35
Daman & Diu	32
Jharkhand	31
Bihar	30
Nagaland	28
Odisha	28
Rajasthan	27
Arunachal Pradesh	25
West Bengal	25
Kerala	24
Meghalaya	24
National Average	24
Maharashtra	23
Andaman & Nicobar Islands	23
Goa	22
Haryana	22
Chandigarh	22
Gujarat	20
Sikkim	19
Uttarakhand	19
Andhra Pradesh	17
Himachal Pradesh	17
Punjab	17
Puducherry	16
Karnataka	15
Chhattisgarh	14
Delhi	14
Tamil Nadu	13



An example of Distractor Analysis in Science

Example:

Q.No. 47: Different cell organelle

Level: **Skill 1 (Knowing)**

Scale Score : **344**

Cell organelle found **only** in plants is

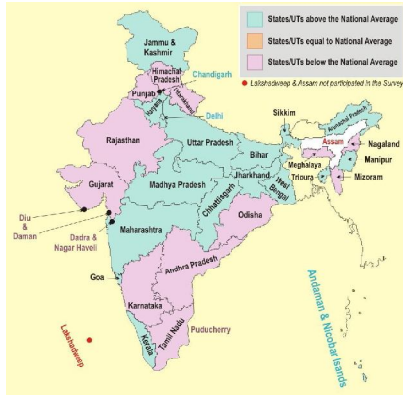
1. mitochondria.
2. ribosome.
3. golgi apparatus.
4. plastid.

Missing	5
Option - 1	26
Option - 2	25
Option - 3	18
Option - 4	26
Multi. Resp.	1
% Correct	26

Only 26% students could identify correctly that 'plastid' is a cell organelle which is found only in plants. However, majority of the students were confused that mitochondria/ribosome is found in plants as cell organelle, which is a wrong answer.

State wise performance in Science Item No. 47

State/UT	Item 47
Goa	36
Maharashtra	35
Tripura	35
Kerala	34
Jharkhand	33
West Bengal	33
Andaman Islands	33
Chhattisgarh	29
Delhi	29
Sikkim	28
Arunachal Pradesh	27
Bihar	27
Haryana	27
Jammu & Kashmir	27
Madhya Pradesh	27
Mizoram	27
Uttar Pradesh	27
Chandigarh	27
National Average	26
Rajasthan	25
Himachal Pradesh	24
Uttarakhand	24
Punjab	23
Mizoram	22
Odisha	22
Nagaland	21
Daman & Diu	21
Karnataka	19
Meghalaya	19
Andhra Pradesh	17
Puducherry	16
Dadra & Nagar Haveli	16
Gujarat	13
Tamil Nadu	11



An example of Distractor Analysis in Social Science

Example:

Q.No. 57: Relation between land & law and the right of ownership under law

Level : Skill 3 (Reasoning)

Scale Score : 408

Mr. Raju owned two acres of land which he leased it to Mr. Bhaskar for three years. After one year, Mr. Bhaskar transferred the land in his own name without the owner's consent. Under which law can Mr. Raju file a case?

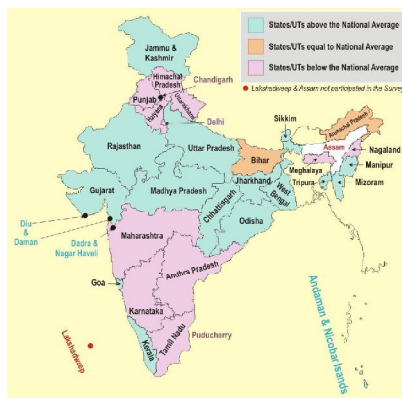
1. Civil law
2. Judicial law
3. Constitutional law
4. Criminal law

Missing	4
Option - 1	19
Option - 2	36
Option - 3	21
Option - 4	19
Multi. Resp.	1
% Correct	19

Only 19% students could identify correctly that such type of cases comes under the 'Criminal law'. However 36% students think that this case should come under 'Judicial law'.

State wise performance in Social Science Item No. 57

State/UT	Item 57
Uttar Pradesh	32
Daman & Diu	31
Madhya Pradesh	26
Dadra & Nagar Haveli	26
Sikkim	25
Goa	23
Odisha	23
Andaman Islands	23
Gujarat	22
Jammu & Kashmir	21
Mizoram	21
Tripura	21
West Bengal	21
Chhattisgarh	20
Jharkhand	20
Kerala	20
Mizoram	20
Rajasthan	20
Arunachal Pradesh	19
Bihar	19
National Average	19
Punjab	18
Himachal Pradesh	17
Maharashtra	17
Delhi	16
Haryana	16
Karnataka	16
Meghalaya	16
Puducherry	16
Chandigarh	14
Andhra Pradesh	13
Nagaland	13
Tamil Nadu	13
Uttarakhand	12



Association of Intervening Variables

Association of Intervening Variables

For looking association of intervening variables information were collected through questionnaires (Pupil, School and Teacher) and for analysis regression analysis was carried out between intervening variables and achievement of students.

Association of Intervening Variables

Contd...

Student related variables:

- Positive attitude towards learning, getting help in studies, homework checked at school and in-home have positive association with achievement of students
- Positive association with availability of equipment, student –computer ratio; involvement of parents

An example from Pupil Questionnaire:

Who checks your homework?

Put a tick in appropriate box in each row.

a) At home: Family Members ☐ Tutor ☐ Friend ☐ None ☐

b) In Class: Teacher ☐ Friend ☐ None ☐

Association of Intervening Variables

School related variables:

- Positive association with availability of equipment, student-computer ratio and involvement of parents.

An example from School Questionnaire:

State whether you have the following:

Put a tick (✓) mark for YES and cross (×) mark for NO in a box for each row.

a) Games equipment ☐ b) Play material & Toys ☐

c) Mini Tool Kit ☐ d) Mathematics Kit ☐

e) Primary Science Kit ☐ f) Globe ☐

Some observations

The output of the analysis suggests what states have to look for :

- Presentation of the content in the textbooks.
- Type of examples or learning experiences being provided in the textbooks.
- How transition of the content or the syllabi is taking place in the class during the teaching-learning process.
- The input about the learning gaps and teaching of the concept are included in the teachers training program.
- The assessment practice being carried out during the teaching-learning process.

Way Forward

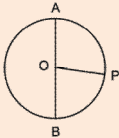
- Qualitative and quantitative analysis for state specific needs which may be used for teachers training programmes, development of teaching learning materials and various infrastructure facilities.
- Providing information to various stakeholders associated with the education system.
- Identify a team for in-depth analysis of state specific data. (e.g. SCERT/SIE, Boards, Universities, etc.)
- Use outcomes of analysis for planning actions and interventions.
- This type of analysis has potential to provide feedback for teacher training, development of plurality of material, conducive learning situation and deep engagement with concepts.

Thank you

for your time and kind attention

An example of Distractor Analysis in Geometry

Example:

Q.No. 26 Relationship between radius and diameter			
Scale Score : 261	Level : Skill 2 (Applying)	Avg. Top 25% : 81%	Avg. Bottom 25% : 15%
<p>In the circle, given here, O is the centre of the circle. If AB = 4 cm, then OP is equal to...</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>1. $\frac{1}{4}$ cm</p> <p>2. $\frac{3}{4}$ cm</p> <p>3. 3 cm</p> <p>4. 2 cm</p> </div>  </div>			
Missing			5
Option - 1			13
Option - 2			22
Option - 3			15
Option - 4			44
Multi. Resp.			1
% Correct			44

Only 44% students selected the correct option. About half of the students could not understand the relationship between radius and diameter.

Performance of Top and Bottom 25% students across the states

GEOMETRY (Item No. 26)
Relationship between radius and diameter

State/UT	Average Top 25%	Average Bottom 25%	State/UT	Average Top 25%	Average Bottom 25%
Karnataka	89.3%	22.6%	Delhi	81.4%	13.3%
Uttar Pradesh	88.8%	18.0%	Sikkim	81.0%	16.7%
Jammu & Kashmir	87.4%	15.4%	Uttarakhand	80.7%	13.1%
Maharashtra	87.4%	18.4%	Goa	79.6%	13.8%
Odisha	86.9%	18.1%	Madhya Pradesh	77.5%	16.2%
Assam	86.8%	21.0%	Bihar	77.1%	15.9%
Puducherry	85.6%	12.1%	Himachal Pradesh	75.9%	18.3%
Kerala	85.4%	16.6%	Gujarat	75.6%	14.4%
Meghalaya	85.1%	15.8%	Mizoram	73.2%	11.3%
Chhattisgarh	85.0%	11.9%	Tripura	72.9%	13.3%
Tamil Nadu	83.9%	20.0%	Haryana	71.1%	15.5%
Jharkhand	83.2%	17.9%	Chandigarh	68.8%	13.1%
Daman & Diu	82.6%	13.9%	West Bengal	68.0%	14.0%
Nagaland	82.2%	12.9%	Andhra Pradesh	65.9%	13.6%
A & N Islands	82.0%	13.3%	Punjab	63.5%	15.4%
Rajasthan	81.4%	14.4%	Total	81.1%	15.4%

Exemplar items on Number system

NUMBER SYSTEM (Addition)
Q.No. 44 : Sum of two four digit numbers in simple format

$$\begin{array}{r} 7010 \\ + 2699 \\ \hline ? \end{array}$$

1. 9799
2. 9709
3. 9699
4. 9609

NUMBER SYSTEM (Addition)
Q.No. 21 : Sum of two digits with carry given in simple format

$$\begin{array}{r} 1013 \\ + 997 \\ \hline ? \end{array}$$

1. 1910
2. 2000
3. 2010
4. 1900

Exemplar items on Number system

NUMBER SYSTEM (Multiplication)
Q.No. 64 : Simple multiplication sum in simple format

$$\begin{array}{r} 1089 \\ \times 9 \\ \hline ? \end{array}$$

1. 1701
2. 9801
3. 90801
4. 97281

Exemplar items on Number system

NUMBER SYSTEM (Subtraction)
Q.No. 20 : Computation of difference of two numbers with property of borrowing in simple format

$$\begin{array}{r} 1200 \\ - 972 \\ \hline ? \end{array}$$

1. 338
2. 238
3. 328
4. 228

NUMBER SYSTEM (Subtraction)
Q.No. 12 : Computation of difference of two (4 digit numbers) with borrowing

9607 - 8268 is equal to...

1. 1461
2. 1449
3. 1439
4. 1339

Exemplar items on Number system

NUMBER SYSTEM (Division)
Q.No. 4 : Computation of remainder after division

When 5205 is divided by 9, the remainder is...

1. one
2. two
3. three
4. five

NUMBER SYSTEM (Division)
Q.No. 65 : Relationship between divisor and dividend

If $654 \div 6 = \square$, then the number in the \square will be...

1. 19
2. 100
3. 109
4. 648

An example of Distractor Analysis in Family & Environment

FAMILY AND ENVIRONMENT

Q.No. 43: **Process of breathing**

Scale Score : **284**

Level : **Skill 2 (Applying)**

Avg. Top 25 : **63%**

Avg. Bottom 25 : **26%**

During breathing when we inhale air our chest _____.

1. contracts
2. expands
3. vibrates
4. heats up

Missing	3
Option - 1	24
Option - 2	41
Option - 3	16
Option - 4	15
Multi. Resp.	1
% Correct	41

This question is related with students' knowledge about process of breathing and this question was found very difficult in Assam. Only 41% students know that during breathing when we inhale air our chest **expands**.

Performance of Top and Bottom 25% students across the states

FAMILY AND ENVIRONMENT (Item No. 43)

Process of breathing

State/UT	Average Top 25	Average Bottom 25	State/UT	Average Top 25	Average Bottom 25
Chhattisgarh	85.1%	28.3%	A & N Islands	60.0%	23.7%
Rajasthan	82.2%	20.7%	Orissa	59.9%	23.9%
Bihar	79.6%	35.0%	Himachal Pradesh	58.7%	23.9%
Uttar Pradesh	78.1%	31.9%	Goa	56.3%	35.2%
Jharkhand	78.1%	30.8%	Punjab	55.2%	28.4%
Jammu & Kashmir	77.6%	30.8%	Meghalaya	54.5%	20.9%
Gujarat	76.4%	28.5%	Uttarakhand	54.0%	24.1%
Daman Diu	74.5%	21.9%	Maharashtra	51.6%	21.2%
Karnataka	74.1%	31.2%	Kerala	50.7%	30.5%
Haryana	73.7%	24.2%	Andhra Pradesh	48.2%	26.7%
Tripura	70.4%	30.7%	Assam	41.2%	21.6%
Madhya Pradesh	69.7%	30.6%	Tamil Nadu	38.5%	13.7%
Puducherry	67.3%	17.6%	Mizoram	38.5%	14.3%
Nagaland	64.4%	27.9%	Sikkim	31.1%	16.9%
West Bengal	62.8%	31.6%	Chandigarh	29.5%	26.8%
Delhi	61.3%	39.0%	Total	62.5%	26.2%