Review of
Continuous and Comprehensive Evaluation (CCE)

IN SIX STATES IN INDIA

⊙ **Bihar** ⊙ **Gujarat** ⊙ **Maharashtra** ⊙ **Odisha** ⊙ **Rajasthan** ⊙ **Uttar Pradesh**

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Review of
Continuous and Comprehensive Evaluation (CCE)

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ACRONYMS AND **ABBREVIATIONS**

ACRONYMS

ASER	Annual Status of Education Report		KGBV	Kasturba Gandhi Balika Vidyalya
BEO	Block Education Officer		MHRD	Ministry of Human Resource Development
BLO	Booth Level Officer		MSCERT	Maharashtra State Council for Education Research and Training
BSS	Bodh Shiksha Samitito			
CBSE	Central Board of Secondary Education		NAS	National Achievement Survey
CCE	Continuous and Comprehensive Evaluation		NCERT	National Council of Educational Research and Training
DEO	District Education Officer		NCF	National Curriculum Framework
DIET	District Institute for Education and Training		RIE	Regional Institute of Education
			RTE	Right to Free and Compulsory Education Act
GCERT	Gujarat Council of Educational Research and Training			
			SCERT	State Council of Educational Research and Training
IB	International Baccalaureate (IB)			
ICSC	Indian Certificate for Secondary Education		SSA	Sarva Shiksha Abhiyan
			TISS	Tata Institute of Social Sciences
IGCSC	International General Certificate of Secondary Education		UNICEF	United Nations Children's Fund

ABBREVIATIONS

ABL	activity based learning		MGML	multigrade-multilevel
BRC	block resource centre		MT	master trainer
BRP	block resource person		NGO	non-governmental organization
CCT	continuous and comprehensive teaching		PTR	pupil teacher ratio
			RP	resource person
CRC	cluster resource centre		SCE	school based comprehensive evaluation
CRP	cluster resource person			
DRG	district resource group		SCR	school classroom ratio
FGD	focused group discussion		SPO	state project office
HM	head master		SPQ	socio-personal qualities
ICT	information and communications technology		SRG	state resource group
			TLM	teaching learning material
LFM	learning facilitating manual		UT	union territory
MDM	midday meal			

EXECUTIVE SUMMARY

INTRODUCTION

The National Curriculum Framework (NCF) 2005 strongly advocates examination reforms. It considers assessment an integral part of the teaching-learning process and a constructivist paradigm for learning. Continuous and Comprehensive Evaluation (CCE), according to NCF 2005, should be a school based system of assessment that:

a. Reduces stress on children;

b. Makes evaluation comprehensive and regular;

c. Provides space for the teacher for creative teaching;

d. Provides a tool for diagnosis and remediation; and

e. Produces learners with greater skills.

The Right to Free and Compulsory Education (RTE) Act, 2009 disallowed public examinations up to Grade VIII and stipulated a scheme of CCE to be implemented from 2010-11 for Grades I to VIII. Most states and union territories (UTs) started to design, pilots and implement CCE schemes from 2010. By June 2013, 27 states/UTs had implemented different models of CCE. This was the context in which UNICEF in consultation with MHRD undertook a comprehensive national review, in 2014, to understand ground- level realities of implementing the CCE scheme.

RESEARCH QUESTIONS AND CONCEPTUAL FRAMEWORK

Research questions for the review were framed keeping in mind the complex interplay of factors that would make the CCE scheme a success or not, in the quest for quality education. An attempt was made to find answers to these questions in the frameworks and practice of CCE in different states in the country. The research involved looking into interpretations of both, 'continuous assessment' as well as 'comprehensive assessment', the interplay between curriculum, teaching-learning processes and assessment, the effect of the 'growth approach' if any, the agency of the teacher and the responsibility s/he is expected to assume for student learning, and the extent and purpose of record keeping on CCE. On the systemic side, the review attempted to look at how CCE affected the no-detention policy, and whether the system was prepared and committed to CCE. Finally an attempt was made to identify strengths and weaknesses in implementing CCE in different states. In brief, the objectives of the research were to:

a. Study conceptual understanding of CCE from state to school level;

b. Study CCE implementation at the school/ classroom level (teaching-learning process, assessment methods, record keeping and response/follow-up of assessments; and

c. Identify strengths, limitations and constraints at the conceptual and implementation level in the state CCE model.

CONCEPTUAL FRAMEWORK FOR THE REVIEW

To ensure that the review remained focused on CCE, and did not suffer from a 'scope creep' to move into the general territory of quality improvement, teacher competence, school effectiveness, etc., a framework was developed and is detailed below.

Enabling conditions: These relate mainly to provisioning of adequate, high quality teachers and other inputs in each school, and also to systemic issues of the vision for change in classroom processes, student learning and equity. It includes the less tangible, but crucial aspects of a system-wide environment of professional learning and reflection, and accountability for student learning. While these aspects were not examined in-depth during the CCE review, interviews with teachers,

HMs/HTs, faculty of CRCs/BRCs, DIETs and educational administrators helped an understanding of some of these conditions.

Major inputs: The framework classifies, somewhat arbitrarily, inputs as 'CCE related' and 'other inputs'. This reflects the manner in which CCE is seen by the state education system, in several states, as an initiative that is separate from other inputs related to quality improvement. The classification also helped the review focus on CCE related inputs, and correspondingly CCE related outputs and outcomes, at the school, cluster, block and district levels. The CCE related inputs have two major components:

a. Intended CCE design or framework including conceptual framework, assessment process, record keeping, follow-up and response to assessments, etc.; and

b. Implementation strategies like resource materials, training of teachers and academic support and monitoring.

Intermediate outcomes for CCE: For the state education system – SCERT and Sarva Shiksha Abhiyan (SSA) – the most appropriate outcomes would be the 'closeness' or fidelity of implementation at the school level to the prescribed state level CCE model in terms of the assessment process, record keeping and other aspects included in the model. For the review, however, classroom and school level practices for CCE have been reviewed from the perspective of a reference framework of desirable or appropriate practices in keeping with the spirit of CCE. Apart from the school level, conceptual understanding of CCE and regular academic support and monitoring for CCE, at the cluster, block and district levels have also been reviewed as expected intermediate outcomes.

Final outcomes: The expected final outcomes after implementing CCE and other related quality improvement initiatives would be a high quality teaching-learning process (student-centred, active engagement of all students, focused on student learning and equity), and improved student learning outcomes.

Assumption implicit in the conceptual framework: Teachers will adopt appropriate CCE practices and begin to change the teaching-learning process and assessment in their classrooms, if the following were provided: (a) an appropriate CCE design; (b) materials, training and regular academic support and monitoring for effective implementation; (c) other (non-CCE) supportive curricular and training inputs; and (d) some or most enabling conditions at the school level.

RESEARCH DESIGN

The review was not intended to be a large scale survey of CCE implementation that could make generalizations about schools for any state, district, or even a block. This was also not conceived strictly as an evaluation of the CCE approach and implementation in the six states. One reason for not planning a standard 'evaluation design' was that CCE implementation is fairly recent in most

states. Being a recent practice, it needs time to stabilize. Therefore, the CCE review was designed as an in-depth, qualitative analysis of the CCE approach and implementation, with the inquiry covering all levels from the state to school, and almost all stakeholders responsible for the design, implementation and monitoring of CCE. Only a small number of schools, clusters, blocks and districts were chosen in each state to help provide a rich flavour of CCE implementation. In some ways, the review can be characterized as a 'case study' of selected schools in a state. While, such a small sample cannot claim to represent the state, it was clear from discussion at various levels that CCE practices observed in selected classrooms and perceptions of various stakeholder groups could be fairly similar in other parts of the blocks, districts and state. Therefore, the findings of this review may be applicable to a majority of schools in a state.

FINDINGS AND CONCLUSIONS

The overall findings and conclusions draw from the state-wise analysis of CCE designs and the implementation process presented in Chapter 3. The conclusions are presented as national level findings for all six states rather than for each individual state.

Positive aspects: At the state level, in all the states, there is considerable seriousness about making CCE work. The CCE frameworks, teachers' guides and training modules reflect an idealistic and aspirational approach to assessment and teaching-learning. States like Gujarat, Maharashtra and Rajasthan have converged quality improvement initiatives like curriculum and textbook revision, in-service teacher training and CCE to provide a comprehensive approach. Teachers in Maharashtra displayed a good understanding of the use of these activities in the teaching-learning process.

Some of the CCE designs are fairly comprehensive, including detailed lesson planning and recording in a teacher's diary, student-wise qualitative statements of progress and/or grades in formative and summative assessments, student progress report cards, student portfolios, etc. Detailed manuals including the concepts of CCE, subject-wise learning indicators, assessment methods and recording formats have been developed.

Assessment of co-scholastic aspects of students' development has, for the first time, found an important place in the framework for school based assessment. While, this is just a beginning, it could provide a foundation for a greater focus on opportunities for nurturing,

and development of these domains as a part of regular school responsibility.

The school level understanding of CCE is quite varied. However, there seems to be a moderate shift in certain aspects of teachers' awareness about CCE.

a. Most teachers appear to have developed some awareness about different learning levels in classrooms and the need to support weaker students.

b. Many teachers have developed some awareness that co-scholastic aspects need to be looked at as a part of overall student development.

c. Many teachers and others who visit schools regularly reported that after implementation of CCE and the no-detention policy, the classroom environment has become less stressful and threatening for the students.

d. Some teachers who were master trainers or members of state or district resource groups on CCE, performed much better than teachers who received training in the last leg of the cascade. In Rajasthan, schools in the initial pilot received strong on-site academic support leading to a much better understanding of formative assessments and the need for some differential instruction.

e. Some teachers are trying out strategies for remedial teaching, though these are not necessarily linked to CCE.

f. Some teachers are using assessment methods like oral tests, project work, etc. and moving beyond traditional paper-pencil tests.

ISSUES AND CONCERNS

The review found several issues that not only impact current implementation of CCE but have serious implications for quality learning outcomes for children in the years to come.

a. CCE frameworks are idealistic and not tuned to real classroom situations. They do not realistically address the issues of CCE in multigrade, multilevel classrooms, teacher shortages and limitations on time-on-task of both teachers and students. Many enabling conditions for CCE are missing.

b. In its current implementation, CCE was not found to be 'continuous'. Formative assessment as 'assessment during the course of teaching' is not clearly understood, and

tends to be either a symbolic exercise or a series of small summative evaluations.

c. There are weak or non-existent 'feedback' and 'response' aspects of learning assessments, which are recorded but not referred to by teachers, either in the current academic year or when the child moves to the next class. Teachers were seen to have a procedural and formulaic approach to assessment.

d. Teaching-learning processes observed over a length of time in several classrooms were not conducive to CCE.

e. Marks, grades and qualitative comments expected in the CCE design, though well intended, do not provide clear evidence of student learning at any given point in time, or even at the end of the school year.

f. CCE is not promoting equitable learning. Teachers continue to focus on children who are able to cope with the speed of 'completion' of the syllabus, while mostly ignoring those who do not.

g. In many states, examinations continue without integration in to a CCE framework, though in some instances these are couched in the terminology of CCE.

h. Co-curricular and co-scholastic aspects are not well understood, and teachers lack expertise on providing adequate opportunities and inputs to students, resulting in a focus mainly on recording grades.

i. Training, academic support and monitoring of CCE is weak and of unsatisfactory quality.

j. Even in states where learning indicators have been defined, these are not always appropriately selected or worded and need to be reviewed.

k. There is a conflict between the expectation of term-wise syllabus 'completion' and the flexible approach envisaged for CCE.

l. Assessment methods and records are centrally prescribed at state levels with little flexibility for teachers.

RECOMMENDATIONS

a. **Greater clarity throughout the system on the objectives of CCE:** In most states, the conduct of periodic assessments, using a fixed set of prescribed tools and techniques, and recording marks/grades or descriptive qualitative comments, is considered the most important part of CCE. This is a very limited

and narrow interpretation of CCE. It must be clearly understood by everyone that the central purpose of CCE is to improve student learning.

b. **Overhauling the teaching-learning process:** It is important that CCE be seen as a part of a larger initiative to bring about a significant change

in the classroom teaching-learning process and an essential strategy, among others, to promote equitable learning. Good assessment practice is part of good student-centred, learning and an equity oriented teaching process. Thus, CCE cannot be implemented in isolation, without fundamental changes in the overall teaching-learning process.

c. **Benefits of phased messaging:** In the first phase, the essential message should be about the concept and strategies for formative assessment, and not maintenance of records of periodic assessments.

d. **Conceptual and implementation action for different achievement levels:** Teachers need to take specific follow-up action through a variety of teaching-learning strategies and tasks to address the learning needs of individuals or groups of students on a regular basis based on assessment information. In addition, some form of remedial teaching practice on a periodic basis for students identified through regular assessment, can be institutionalized.

e. **Clear vision and core expectations:** It is important to place 'equitable learning' at the core of any CCE initiative. A focus on equitable learning could be promoted through a strong focus on academic support, monitoring and supervision of the progress of learning of the 'bottom' 20-30 per cent of the students in each class. This will increase expectations of improved learning outcomes.

f. **Well-designed summative assessments complement formative assessments:** summative assessments can be really useful. However considerable reform of the design of these tests and their administering is required if teachers are not to slip back into the traditional 'exam' mode. A well planned and gradually rolled-out strategy of teacher development in this area is required. Initially, good test items need to be designed at a level beyond the school.

g. **Teacher education reform is crucial with interim professional development strategies:** A complete overhaul of the teacher education system including structures, staffing, funding and professional development is a prerequisite for bringing about any significant change in the teaching-learning process in the country.

h. **Flexible and minimum record keeping:** If prescriptive record keeping is included as a part of the initial 'package' of CCE, it becomes the central element of the scheme and teachers, and monitoring and supervision staff, focus mainly on maintenance of records. In the initial phase of CCE implementation, there could be some indication of useful documentation that could be tried out by willing teachers. When teachers understand the real objective of formative assessment, and some practices begin to be internalized, documentation could be agreed upon through a process of dialogue.

i. **Co-scholastic strengthening:** It will be useful for states to review co-scholastic sub-domains included in their CCE frameworks and present a clear rationale for skills and attributes that are considered important. To begin with, the focus should be on increasing opportunities for co-scholastic development for students instead of an exclusive focus only on assessment and assignment of grades.

j. **System focus on student learning and responsibility:** The focus on training of head masters, academic support personnel and educational administrators should be on enhancing student learning. The focus of school visits and review meetings should be squarely on the learning progress of students, especially those students who have shown poor results. Teachers should also feel responsible for student learning. Communicating this to all stakeholders throughout the system in a meaningful way is key to a shift towards focusing on student learning.

k. **Systemic issues create the right enabling conditions:** These include adequate pupil teacher ratio (PTR), better teacher training and support systems, more resources for classrooms, clearly defined remediation strategies, flexibility in syllabus and textbook coverage targets for each month or term.

l. **Preventing hijacking of formative and summative assessments:** There is a serious risk of CCE data (students' grades – A, B and C, in different subjects) being collected from schools and aggregated and analysed at district and state levels. Therefore, any review focused on student learning that is based on CCE kind of assessments should be confined to discussion and assessment at school/classroom levels only.

m. **Review of learning indicators:** States would need to review subject-wise learning indicators. Indicators should reflect a clear learning progression across grades. It will be useful to identify the relationship between the learning objectives and indicators and textbook lessons since teachers depend heavily on textbooks.

n. **Countering opposition to 'no-detention':** CCE does not de-emphasize learning. The no-detention policy does not imply 'promotion without learning' The proponents of public examinations and detention raise the issue of students reaching upper primary and lower secondary stages without having learnt much and blame CCE and no-detention for this situation. What is needed is a process for ensuring that almost all students acquire key skills required for progressing to a higher grade.

STRUCTURE
OF THE **REPORT**
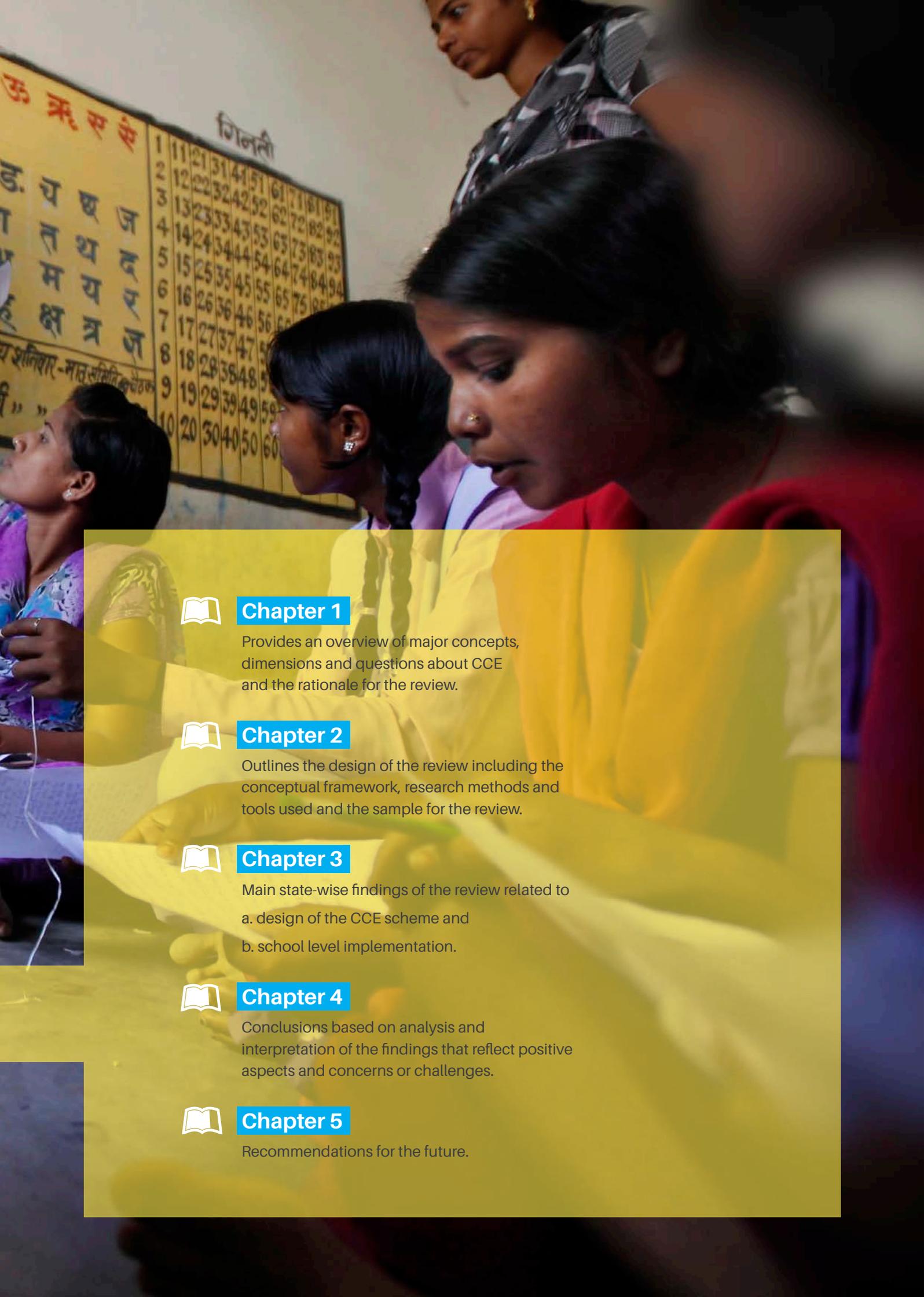
Chapter 1

Provides an overview of major concepts, dimensions and questions about CCE and the rationale for the review.

Chapter 2

Outlines the design of the review including the conceptual framework, research methods and tools used and the sample for the review.

Chapter 3

Main state-wise findings of the review related to

a. design of the CCE scheme and

b. school level implementation.

Chapter 4

Conclusions based on analysis and interpretation of the findings that reflect positive aspects and concerns or challenges.

Chapter 5

Recommendations for the future.

Chaper 1 INTRODUCTION

In this chapter, we begin by discussing the history of CCE in the country and the current thrust for implementing CCE following the RTE Act 2009. This is followed by a discussion on key concepts and issues relating to CCE that form the reference framework for the review. At the end of each aspect or dimension of CCE, a set of questions are presented. The discussion and questions have guided the inquiry of this review. Towards the end of the chapter, a brief rationale and objectives of the present review are presented. Throughout this report, we have used the term CCE to keep the nomenclature used across the country; however the term continuous and comprehensive assessment is more appropriate.

1.1 CCE: Past and present

The Kothari Commission Report 1966 stated: "the internal assessment or evaluation conducted by schools is of greater significance and should be given increasing importance. It should be comprehensive, evaluating all those aspects of students' growth that are measured by the external examination and also those personality traits, interest and attitudes which cannot be assessed by it". The National Policy on Education, 1986 had also stated:"continuous and comprehensive evaluation should incorporate both scholastic and non-scholastic aspects of evaluation spread over the total span of instructional time". In the 1980s and 1990s, the National Council of Educational Research and Training (NCERT) and several SCERTs had formulated schemes for CCE. Some of these were pilots. However, implementation was half-hearted. The system of examinations and detention was not modified.

The National Curriculum Framework (NCF) 2005 advocates strongly for examination reforms. It places assessment as an integral part of the teaching-learning process and a constructivist paradigm for learning. CCE, according to NCF 2005 should be a school based system of assessment that:

a. Reduces stress on children;

b. Makes evaluation comprehensive and regular;

c. Provides space for the teacher for creative teaching;

d. Provides a tool of diagnosis and remediation; and

e. Produces learners with greater skills.

The RTE Act, 2009 disallowed public examinations up to Grade VIII and stipulated for a scheme of continuous and comprehensive evaluation to be implemented from 2010-11 in Grades I to VIII. Through an advisory on implementation of Section 29 of the RTE Act, the Ministry

of Human Resource Development (MHRD) clarified that "there have been some misgivings on the provision of 'no detention', which is wrongly interpreted to mean that students will not be assessed, but will be automatically promoted to the next grade. RTE provides for CCE. CCE implies continuous assessment, rather than no assessment". This means that assessment should be treated as an integral part of teaching and learning. Following the stipulation in the RTE Act, most states and UTs started to design, pilot and implement CCE schemes beginning 2010. By June 2013, 27 states/UTs had implemented various models of CCE.

Alongside, the Central Board of Secondary Education (CBSE) has implemented significant examination reforms and implemented CCE from Grades VI to X, in its schools. The old pattern of one year-end annual examination has been replaced by a system of formative and summative tests. The CBSE model suggests that Formative assessment comprises of the students' work at grade and home, performance in oral tests and quizzes, projects or assignments submitted, and written tests. At least 3-4 different assessment tools should be used for each subject in each term. Written tests should be used only once each term as a part of formative assessment. Formative evaluations are conducted four times in an academic session, and carry a 40 per cent weightage for the aggregate. The summative assessment is a three-hour long written test conducted twice a year. Each summative carries a 30 per cent weightage and both together contribute a 60 per cent weightage for the aggregate. The summative tests are internal, which means they are designed by the teacher and not externally by a state agency. The syllabus of one summative is not repeated in the next. At the end of the year, the aggregate score is arrived at by adding the formative score to the summative score. Grades are allocated, instead of marks for each assessment, with a 9 point grading scale for scholastic areas and a 5

point scale for co-scholastic areas. The CCE designs in several states have been strongly influenced by this pattern of the CBSE which is not the most appropriate process for primary classrooms. NCERT has developed comprehensive CCE packages on CCE for primary and upper primary stages in all curricular areas. These packages provide a conceptual understanding of CCE (what CCE is and what it is not.) and exemplar assessment activities for different aspects of the curriculum for each subject. However, the states did not use the NCERT material at the time of designing their CCE frameworks because these packages were not available when the state frameworks were being developed between 2010 and 2011.

In broad terms, CCE has been understood as a scheme of school based assessment of students that covers all aspects of students' learning and growth. The term 'continuous' implies that assessment has to be an ongoing process and not just specific, periodic events. Assessment is built into the total teaching learning process and spread over the entire academic session. 'Comprehensive' implies that the scheme attempts to cover both scholastic and co-scholastic aspects of students' growth and development.

1.2　Exploring different dimensions and implications of CCE

In each of the sections below, a significant dimension of CCE is discussed. The discussion outlines the nature and scope of these dimensions that were included as a part of the reference framework for the review. The questions at the end of each section have guided the inquiry during desk review and field work. These questions can also be used by the reader to reflect on the overall findings presented and those for each state.

1.3　Assessment Processes

The fundamental purpose of assessment is to establish where learners are in their learning at the time of assessment. Assessment is

about gathering evidence of what learners can do or cannot do or are struggling with, at any point in time.

1.3.1 Continuous formative assessments and follow-up

Formative assessments support learning during the learning process, and are often called 'assessment for learning'. They are typically ongoing (not periodic) assessments on a regular basis as an integral part of the teaching-learning process. The teacher needs to use a variety of methods to 'understand' the learning situation of each child and keep track of the learning behaviour, difficulties and achievements for taking corrective action.

Typically, formative assessments are used for:
a. Drawing conclusions about what individual students have learnt, are finding difficult to learn or have not learnt;
b. Providing feedback to students about learning gaps;
c. Designing and providing further learning opportunities to individuals or groups of students to develop a better understanding of the concept or practicing skills; and
d. Adjusting the teaching process based on feedback from assessment.

Formative assessments, by themselves, do little more than inform the teacher about what concepts individual students have or have not mastered. They do little to improve student learning or teaching quality. What really matters is what happens after the assessments, viz. how teachers and students use these results. By missing this, Guskey (2008) in 'The Rest of the Story', argues that education systems and educators are failing to produce the most important benefits from formative assessments. He argues that formative assessments and their follow-up include three essential steps:
a. Regular checks of learning progress;
b. Identifying learning gaps and difficulties for individual students; and
c. Follow-up with corrective, remedial measures.

These correctives are effective only if they are qualitatively different from the original instruction. Getting students to repeat an earlier process that did not result in learning will not produce better results the second or third time.

Three aspects of formative assessments stand out. Such assessments are:
a. Continuous and not discrete (periodic), and an integral part of the teaching-learning process;
b. Focused on each child; and
c. Followed up with response by providing feedback to students and adjusting the teaching-learning process.

A variety of formative assessment strategies are needed for teachers to check for students' understanding, on an ongoing basis. These could include observation, listening to students, observing group-work, looking at students' classwork or homework, quizzes, practice or assessment worksheets, summaries, re-telling, graphic organizers, asking students explicitly if they understand, asking questions and encouraging students to ask questions, etc. The nature of assessment tasks or activities or tools would depend on the domain being assessed (e.g., language, mathematics or science). These activities are essentially an integral part of effective teaching practice.

Research questions

- What is the understanding of 'continuous' assessment? What is the frequency of formative assessment?

- How strong is the focus on assessment being a part of the teaching-learning process? Have teachers been prepared to use a variety of strategies for assessment during the course of teaching?

- How clearly and strongly are the aspects of response to assessments, to improve student learning and adjusting the teaching-learning process, brought out in the designs, understood and practiced at the school level?

1.3.2 Summative assessment

Summative assessments, on the other hand, are carried out to assess how much students have learnt after completing a unit, set of curricular units or after a particular time in the academic session, e.g., a term or a few months. Summative assessments, often called assessments of learning, are used to see if students have reached prescribed standards, and to ascribe grades to students. They are more in the nature of judging success, rather than improving learning or adjusting the teaching process. If summative assessments 'cover' a varied set of competencies, the score or grade obtained by a student in that assessment does not convey any clear indication about what is the student's learning situation for specific skills, concepts or knowledge. The aggregated grade hides specific aspects of what a student can do well, not at all or where s/he needs a better understanding.

However, some kinds of summative assessments, e.g., those carried out at the end of each lesson or unit based on identified learning indicators can also be used to understand where students are at a point in time in their learning. Such an understanding can be the starting point of some corrective action to improve learning. Also, well designed summative assessments can help focus on higher order skills like analysis, drawing inference and application to real world problems.

Research questions

- Are summative assessments like tests needed?

- Can some kind of summative assessments serve the purpose of supporting learning?

- Should grades be used at all?

- Can individual teachers be expected to develop high quality summative assessments?

1.3.3 Comprehensive assessment

The 'comprehensive' component of CCE has been interpreted differently in different CCE frameworks. Comprehensive assessment goes beyond assessment of specific skills and concepts in curricular subject areas and involves an understanding of 'holistic' development of the child. It includes several dimensions. Some aspects are best assessed through the teaching-learning process for scholastic, specific school subjects. These would include skills and attributes like problem solving, reasoning, metacognition (ability to reflect on one's own learning), etc. It would be difficult to assess these aspects in a setting apart from the regular teaching-learning process. This cluster of competencies belongs to the cognitive domain. Another set of competencies relate to the social or interpersonal domain, e.g., cooperation, communication, team work, leadership, etc. Personal attributes like self-awareness, empathy, respect for others, helping others, managing emotions, dealing with stress, etc. are also included in some frameworks for comprehensive assessment. Most state CCE frameworks include co-curricular subjects like music, arts, sports and physical education, and work experience in the scope of assessment. The NCF 2005 places art, education, health and physical education and work education as curricular areas.

The CBSE guidelines for Grades VI-VIII include the following areas under co-scholastic assessment: life skills, defined as positive and adaptive behaviour that helps an individual to deal effectively with challenges of everyday life (they include 10 skills like self-awareness, critical thinking, problem solving, communication, etc.); co-curricular activities (literary and creative skills, scientific skills, information and communication technology (ICT), organization and leadership skills); value systems: work education; and visual and performing arts, health and physical education. Elsewhere in the world, a set of broader skills that are considered necessary for life and work in the 21st century are being emphasized beyond curricular subjects. These include problem-solving, critical thinking, communicating, collaborating and self-management, etc. (Masters, 2013).

These co-scholastic aspects require different forms of assessment than those used for routine scholastic domains. There is also a lack of clarity in the definition of many of these co-scholastic domains (in India and elsewhere). Often, it is not easy to create settings for observing behaviour related to some of these domains, e.g., creativity, self-awareness, truthfulness, etc. Nor, it is easy to create indicators or descriptors for each of these co-scholastic skills or attributes to help score a student's behaviour and arrive at an overall grade for that skill or attribute. Looking for overt behavioural indicators for many of these attributes may not be the best approach. For these areas, a teacher would need to maintain a record of qualitative observations about different indicators on an ongoing basis to be able to form an opinion about a student. In most frameworks, scores on a 3-5 point scale are allocated against each descriptor (e.g., adopts optimistic approach is one of the several descriptors for life skill 'self-awareness') and then aggregated to arrive at a total score and grade for that co-scholastic skill or attribute.

Research questions

- What co-scholastic aspects have been identified in the state CCE frameworks?

- Are some or many of them seen as related to scholastic or cognitive domains, or as totally separate domains?

- Are the methods and tools for assessment of these areas easy to understand and implement? What is the understanding and practice related to co-scholastic domains at the school level?

1.4 Curriculum, teaching-learning process and assessment

In the pervasive traditional approach to teaching and learning in our school system, the role of teachers is to deliver the curriculum, the role of students is to learn, students' assessment is to establish how much of what teachers had taught has been learnt successfully by the students. Thus, the focus has been on judging student success.

Delivery of curriculum is mostly in the form of transmission of information where students are passive recipients of 'knowledge' and learning takes the form of rote-memorization. Assessments, in the form of tests and examinations are the most common way of judging how much of the prescribed curriculum has been learnt by the students. The focus of these tests and examinations is on recall of factual information and procedural knowledge or skills.

In an alternative paradigm, teaching would focus on student learning, viz. building students' concepts and understanding. Learning is seen as not just mastery of factual knowledge and procedural skills, but a deep understanding of concepts, principles and key ideas that allows students to apply learning to real world situations and new contexts. Students are active participants in the construction of new knowledge by linking new information with their prior knowledge and understanding. Assessments, in such a paradigm, would be a part of the regular teaching-learning process and focus on trying to understand what progress students have made in developing concepts and creating mental models of knowledge for themselves. Factual recall would be a small component of such assessments.

Clearly, the nature of assessment is closely aligned with:

a. What is valued in the curriculum and the expected outcomes of the teaching-learning process; and

b. How teaching-learning is organized in the classroom.

Assessment is aligned with these bigger processes and cannot, in isolation, drive a process of change in the classroom teaching-learning process and learning expectations. The curriculum in India is heavily skewed towards 'breadth' – a wide coverage of topics and knowledge, with an inadequate focus on 'depth' – building concepts and developing a deep understanding. Teaching practice is teacher-centred with students largely remaining passive. Many teachers do not possess strong subject-knowledge

or understanding of pedagogy for effective teaching. There are also huge issues of beliefs and attitudes about children, their abilities, learning process, diversity and equity, etc.

Research questions

- Is it useful and appropriate to prioritize assessment reform in this situation? Or should a new assessment paradigm be part of comprehensive initiatives for curricular reform and a new vision for transformed teaching-learning process?

- Are we putting the cart before the horse by focusing on CCE when other aspects of the teaching-learning process are far from ideal?

- Is current classroom practice conducive to introduction of good CCE (especially formative assessment practices)?

1.5 'Growth' approach to assessment and teaching: Focus on each student

A growth approach to assessment and student learning is based on an understanding that while students may be at different points in their learning at any given time, each student can make good learning progress during the course of the year if given good learning opportunities. The focus of assessment is, therefore, on understanding the progress made by each student over a period of time, rather than focus on what a student has achieved compared with the grade level expectations of the curriculum. The growth approach to assessment and teaching does not have expectations of similar performance from all students and sets targets for individual students to help them learn from the point at which they are in their learning and to make good progress over the school year.

The most important rationale for using a 'growth' model of assessment (formative or summative) is the fact that students in the same classroom are at very different levels of learning at any point in time. Differences in social, cognitive, emotional and psychomotor

development at the beginning of school continue during the entire school stage. At the beginning of any grade, different students would have very different levels of readiness for engaging with the grade-level curriculum (Masters 2013). Many students can be several grade levels lower than others, as has been clearly brought out by several surveys of learning achievement in India, including the National Achievement Survey (NAS) and Annual Status of Education Report (ASER). This variability or 'multilevel' learning situation often gets exacerbated by a teacher-centred, inequitable teaching-learning process, with implicit or explicit discrimination operating in many classrooms. The curriculum, grade-specific level of teaching and the prescription of term-wise completion of parts of the curriculum or textbooks do not make allowance for such a 'multilevel' situation.

In a system of assessment (as is the current practice), where students' performance is measured only against the learning outcomes expected for the particular grade, a less-advanced student could consistently get low grades since s/he is not performing at the expected learning level of that grade. However, that student could actually be making significant learning progress over the year compared to her own learning. The low grades, would, therefore, give an incorrect picture of the student's learning progress. The consistently low grades are demotivating for these less-advanced students and can affect their engagement in the classroom and lower learning.

Most state CCE frameworks profess support to the 'growth' model of learning and assessment. Such an approach implies providing differentiated learning opportunities for different students or groups of students, based on their need. This would hold true both for the advanced and less advanced students. It also requires a flexible organization of the curriculum framework and clear learning progressions across years for each domain that define what growth in learning means over time. The curriculum needs to define what 'deep understanding'

means in different learning domains and sub-domains in terms of higher order skills, knowledge and more sophisticated understanding. The organization of school in to year-wise grades for students of similar age-groups would also needs to be dismantled if a real flexible learning progression model is to be implemented. Therefore, a 'full-blown' growth model' of assessment and teaching would require extensive structural reform and may be too idealistic in the current setting of the school system. This has been attempted, to an extent, in activity based learning (ABL) or multigrade-multilevel (MGML) models in several states. The states and the sample selected did not include such interventions.

Research questions

> What is the meaning and implication of the 'growth' model of assessment included in several state CCE frameworks?

> Is this feasible, given the present education system?

1.6 CCE can promote agency of the teacher and responsibility for student learning

By stressing teacher's responsibility and initiative for understanding individual students and designing follow-up activities to improve learning, and also adjusting the pace and nature of the teaching-learning process, a CCE-like system places the teacher centre-stage. S/he has to reflect, analyse and take decisions in the classroom in an independent manner.

Research questions

> Do the current state CCE frameworks support this philosophy?

> Are teachers able and willing to take complete responsibility for the classroom process and student learning?

1.7 Pitching teaching at students' level of learning at any point: Whole class or groups of students

The most basic requirement of a student-centred teaching practice is that the teacher understands the general learning level of students and plans teaching accordingly. Teaching something before the child is cognitively ready takes away from real learning. Students may 'remember' many facts but they may not understand them or be able to relate them to the world around them. If 'teaching at the level of children' is done for the class as a whole, the teacher would pitch her teaching somewhere at the middle of the class. While this is not the best thing to do, it is better than just 'teaching the textbook', while being oblivious of the general level of understanding of the class. Often, the textbook content or language difficulty level could be significantly above the understanding level of students. Students may not have understood or mastered the concept or skill of a previous unit and more time may be needed for revising or teaching it in a different manner. An equitable teaching-learning process helps to ensure that almost all students benefit from the teaching-learning process and make significant learning progress. An equitable teaching-learning process that takes in to account the multilevel learning situation in the classroom would include the following:

a. Revising earlier concepts of the same or earlier grade for the entire class before taking up the prescribed curriculum for that term or grade;

b. A simple baseline assessment, periodic assessments, or regular observation could help identify some students who are several steps behind the advanced group of students. The teacher could take up some differentiated instruction for these groups of students for some time each day or at regular intervals to provide extra attention and learning opportunities for the less-advanced group and, if possible, enrichment oriented tasks for the advanced group;

c. During the course of regular teaching, the teacher would provide scaffolding to

all students for learning a new concept and follow the principle of 'gradual release of responsibility' before expecting independent performance from students; and

d. The lesson plans would be prepared in a manner that they address the needs of the less advanced students also, while the whole class is engaged in learning the same concept or skill. For example, in a language class, while working with an information-based text, the teacher could plan for extensive oral work before the reading the text to help build background knowledge and motivation for students, especially for those who have limited background knowledge or vocabulary required for the lesson. S/he could spend considerable time discussing the concepts and focus on asking a range of questions to build comprehension. Struggling readers could be supported by some individual or group based 'guided reading' work. If any writing tasks are planned, they could be preceded by discussion and formulation of answers through a joint exercise in the classroom. Students who are less advanced in writing could be supported in doing writing tasks of a more basic nature.

Thus, a basic indicator of an equity oriented classroom process is that the teacher provides extra attention and support to those students who need it.

Any CCE framework should emphasize understanding the learning level of students' (entire class and groups) and teaching according to that level. Introducing a CCE scheme while teaching continues to be disconnected from students' learning levels will be futile.

Research questions

- Does the CCE framework encourage regular ascertaining of students' learning levels and adjusting teaching to students' (average) current level of understanding?

- How is this practically implemented if there are clear targets of syllabus and textbook lessons to be completed each month or each term?

- Is any differentiated instruction suggested in the framework or practiced? What about addressing individual student's learning needs?

1.8 Record keeping-use and purpose

As a general principle, any record keeping of the teaching-learning process and student learning should have a clear purpose of supporting improved learning and improving the teaching-learning process. Some kind of record of observations of the classroom process and students' responses on a regular basis would help in reflection by the teacher, about the earlier class and planning for a future class, and specific work needed for different groups of students. Of course, this requires a spirit of reflection and learning in the entire education system, and also within the school. Similarly, some record of students' learning progress could be useful for follow-up action by the teacher. However, these records are worth keeping only if teachers consult them to decide on strategies for improving learning of individuals or groups of students. Similarly, a progress report card that shows a student's progress during a term and the academic year is useful to inform parents and engage them in a discussion about their child's learning. Extensive record keeping that is not used or useful can only demotivate teachers and reduce the exercise to a mechanical activity.

Research questions

- Are CCE records useful for teachers?

- Are they used regularly to help improve learning?

1.9 Examinations and no-detention

The practice of examinations is deep-rooted in our education system. Examinations have, typically, tested students' skills to memorize and reproduce textbook content, and learning is equated with performance

in exams (Nawani, 2014). A student who scores below a certain pre-determined score is considered to have failed. Unfortunately, that cut-off score, or for that matter any score, or even grade, in an examination does not provide any indication of what the student knows, knows well or does not know.

The questions in an examination cover the syllabus for a term or half the year or the whole year. Giving an aggregate score or grade for an examination of this type hides more information than it reveals. At best, the conclusions can be of the type: student X is generally good in mathematics; student Y has done very poorly in the syllabus prescribed for the half-yearly or annual examination, etc. In the past, an arbitrarily decided cut-off score would be the criterion for promoting a student to the next class or detaining her in the same class for another year.

The examination result and performance on different questions are rarely analysed to prepare a list of areas of strengths and learning gaps for each student for early remedial action in the next grade. Most often, the questions included in the examination do not lend themselves to a clear analysis of learning gaps for specific skills and concepts. Thus, these kind of traditional examinations do not serve the purpose of understanding where students are in their learning at a point in time, which is the basic principle of any assessment. Apart from all this, examinations cause stress and place an undue premium on a one-time performance. Real learning takes place in a positive and non-threatening learning environment where students are deeply engaged with the learning process. Examinations do not provide this intrinsic motivation to learn; they can actually inhibit a 'learning culture. They cannot, except for some minority of students, serve the purpose of motivating students to improve their learning. Clearly, these kinds of examinations should not find any place in a new age assessment model like CCE.

Many advocates of examinations and detention argue that there is a lack of adequate 'seriousness' in the school system, especially in rural area public schools, and

accountability for student learning in the absence of the importance of examinations. We know that the examination system, which is still alive and kicking, in most parts of the country, did little to improve learning and accountability.

Research questions

» Traditional types of examinations are not helpful for student learning. Can CCE help improve student learning and ensure that students who complete a year in a particular grade acquire key skills at some level of mastery to be able to succeed in the next grade?

1.10 Spirit of CCE implementation: System preparedness and commitment

CCE has been mandated by the RTE Act. Most states have formulated CCE frameworks and implemented them state-wide. An effective CCE model is not merely about good assessment practices, but how assessment and response to assessment are situated as an integral part of good, student-centred, learning focused, and equitable teaching-learning process. This is a huge reform that requires a high degree of commitment, clarity of vision and consistency in messaging, dialogue and implementation.

Moreover, schools need to have appropriate learning environments in terms of teacher availability, reasonable class-sizes and adequate teaching and learning resources as prerequisites for implementing an effective teaching-learning process and CCE.

Research questions

» Is the state education system convinced about the importance of CCE and committed to transforming the teaching-learning process or are the initiatives driven more from the perspective of complying with the provisions of the RTE Act?

» Do most schools have enabling learning environments that are supportive of CCE-like reform initiatives?

1.11 Implementation arrangements

This review does not focus only on the conceptual framework and design of CCE schemes of selected states, but also looks at the arrangements that have supported CCE implementation. Such a transformational quality improvement agenda requires a high degree of competence and commitment within the teacher education system, especially in institutions like SCERTs and DIETs. The training programmes that train teachers and head masters have to be highly effective to bring about understanding, acceptance and commitment to the practices being proposed. Similarly, the academic support system of on-site visits, teacher workshops, etc. has to constantly reinforce key messages and practices and support continuous professional learning. Also, the recording formats need to be available in a timely manner in all schools.

Research questions

» Have implementation strategies been effective in taking the intended messages to teachers and been helpful in promoting teacher adoption of changed practices?

» What are the constraints and good practices in the implementation of CCE in the states visited?

Rationale for the review

There is a wide variety in the CCE frameworks being implemented in different states. There has not been much discussion about the CCE scheme and its usefulness in different states. There has been more debate and discussion about CBSE's examination reforms and the CCE scheme. Of late, there have been dissenting voices about the provisions of RTE Act for no-detention and abolition of public examinations till Grade VIII. However, there has been no systematic research about the nature of CCE models and their actual practice at school levels.

Discussions with SCERT and DIET faculty and educational administrators, interactions

with organizations implementing quality improvement programmes and visits to schools and classrooms clearly show that systems and teachers across the country have been struggling to gain conceptual clarity and practical understanding of CCE. Some myths and misconceptions have arisen among teachers, parents, administrators and educational planners about the true spirit behind the CCE approach.

Some internal reviews conducted by the SCERT or SSA at the state level have focused mainly on 'compliance' issues of conduct of assessments and maintenance of records as mandated in the state's CCE framework and handbooks. These results have been reported mainly in the form of percentage teachers or schools who have conducted the periodic formative and summative assessments and the percentage schools where CCE records were found updated on a regular basis. This is a very limited understanding of the essence of CCE.

There's been a lot of talk about the 'damage' caused by the ban on public examinations till grade Grade VIII and the no-detention policy. Some groups have started to blame the RTE Act, the reduced focus on examinations and CCE as the main reason behind low learning levels. This is not backed by any logic or empirical evidence. CCE does not de-emphasize learning and the no-detention policy does not imply 'promotion without learning' (Nawani, 2014). The no-detention policy ensures that the student is not penalized for poor performance. CCE and no-detention actually place a greater responsibility on the teacher for student learning and repose trust in the agency of the teacher for improving student learning. However, CCE could face a strong threat in the near future from those arguing for public examinations. This is an important context for this review. Overall, there seems to be a need for in-depth reviews of the concept and practice of CCE in schools in all states.

Many issues related to CCE came up during the UNICEF Roundtable on 'Teaching-learning' in December 2013. These included:

lack of clarity of the conceptual basis for CCE; link between CCE and the teaching-learning process; burdensome record keeping; analysis and use of CCE records, etc. It was decided, with the agreement of MHRD and participating state governments to take up a limited research to review the frameworks and practice of CCE in selected states. This review and its findings should be seen as a first step in understanding the strengths and challenges of the CCE scheme being implemented in six states of Bihar, Gujarat, Maharashtra, Odisha , Rajasthan and Uttar Pradesh.

REVIEW DESIGN

Introduction: Conceptual framework for the review

CCE and the teaching-learning process are inextricably linked as discussed in Chapter 1. With this understanding as the backdrop, the review focuses on reviewing how CCE has been conceptualized and implemented in different states, understanding school and classroom level practices, and perceptions of the main stakeholders about CCE. To ensure that the review remains focused on CCE and does not suffer from a 'scope creep' to move into the general territory of quality improvement, teacher competence, school effectiveness, etc., the following framework was developed.

The conceptual framework developed for the review outlines a tentative relationship between inputs and outcomes with a list of enabling conditions. This is a simplistic framework to help focus specifically on

CCE aspects of inputs and outcomes. In reality, there is a complex interplay of these (and other) factors that determines the nature of the teaching-learning process and student learning in different classrooms. The conceptual framework is discussed below.

Enabling conditions

They play a significant role in influencing the classroom teaching-learning process. These conditions relate mainly to provisioning of adequate, high quality teachers and other inputs in each school, and also systemic issues about the vision for change in classroom processes, student learning and equity. It also includes the less tangible, but crucial aspects of system-wide environment of professional learning and reflection, and accountability for student learning. We know that some or many of these conditions are not available in most of the government schools. The absence or inadequacy of enabling conditions inhibit realization of the intended CCE model in schools. These aspects were not examined in-depth during the CCE review. However, interviews with teachers and head masters: CRC, BRC, DIET faculty; and educational administrators did help to understand the situation regarding some of these conditions.

Major inputs

The framework classifies, somewhat arbitrarily, inputs as 'CCE related' and 'other inputs'. This also reflects the manner in which CCE is seen by the state education system, in several states, as an initiative that is separate from other inputs relating to quality improvement. This classification also helped the review focus on CCE related inputs, and correspondingly CCE related outputs and outcomes at the school, cluster, block and district levels. The assumption in the conceptual framework (Diagram 1) is that if CCE related inputs and other inputs are consistently coordinated and share a convergent vision for an improved teaching-learning process, there is much greater likelihood of some impact on classroom teaching-learning processes.

The CCE related inputs have two major components:

a. Intended CCE design or framework including conceptual framework, assessment process, record keeping, follow-up and response to assessments, etc.; and

b. Implementation strategies like resource materials, training of teachers and academic support and monitoring.

Intermediate outcomes

For the state education system (SCERT/SSA), the most appropriate outcomes would be the 'closeness' or fidelity of the implementation at the school level to the prescribed state level CCE model in terms of assessment process, record keeping and other aspects included in the model. For the review, however, the classroom and school level practices for CCE have been reviewed from the perspective of a reference framework of desirable or appropriate practices in keeping with the spirit of CCE. Apart from the school level, conceptual understanding of CCE and the regular academic support and monitoring for CCE at the cluster, block and district levels have also been reviewed as expected intermediate outcomes.

Final outcomes

The anticipated final outcomes from implementation of CCE and other related quality improvement initiatives would be a high quality teaching-learning process (student-centred, active engagement of all students, focused on student learning and equity focused) and improved student learning outcomes.

Implicit assumptions of the framework

These are:

a. An appropriate CCE design;

b. Its effective implementation through materials, training and regular academic support and monitoring;

c. Other (non-CCE) supportive curricular and training inputs; and

d. The availability of some or most enabling conditions. This would allow teachers to adopt appropriate CCE practices and begin to change the teaching-learning process and assessment practices in the classrooms, resulting in improved student learning.

2.2 Objectives of review

a. To study the conceptual understanding of CCE from state to school levels.

b. To study CCE implementation at the school/classroom level (teaching-learning process, assessment methods, record keeping and response/follow-up to assessments).

c. To identify strengths, limitations and constraints at the conceptual and implementation level in the state's CCE model.

2.3 Broad approach of review

a. Identify desired or appropriate dimensions of a CCE model and school/classroom practices (reference frame).

b. Compare a state's CCE framework with the desired or appropriate dimensions identified earlier for the reference frame.

c. Study CCE practice at the school level, and understanding and perceptions of teachers and teacher educators about CCE.

d. Identify gaps or issues in the state's CCE design/framework and school level implementation, and factors that could be responsible.

2.4 Reference frame for a desirable CCE model

A reference frame (essential elements) was developed by asking the question: What is a desirable or good model of CCE? We recognized that the most ideal concept of CCE cannot be implemented on a large scale at this time. Since the objective of the CCE schemes in each state is to implement them in all government and aided primary and upper primary schools/sections, there are huge constraints in implementing an ideal model at this scale. For the purpose of the

review, these desirable dimensions were identified, initially based on formulations in NCF 2005 and other literature on classroom based assessments, especially formative assessments. However, certain pragmatic aspects relating to school level implementation and availability of enabling conditions for effective classroom practice of CCE were considered, and these expectations to define some 'essential elements of CCE' were modified.

The reference frame for CCE included the following aspects:

a. Conceptual position on CCE;

b. Effective and equitable teaching-learning process;

c. Desirable formative assessment and summative assessment practices;

d. Some practical considerations for school level implementation; and

e. Enabling conditions for effective CCE implementation.

These are briefly summarized below.

a. Assessments provide a basis for understanding the state of student learning and difficulties that individual students or groups may face in understanding a concept or mastering a skill. This understanding informs the teacher and helps him/her decide on the response to provide varied learning experiences for the grade so as to help improve learning. Thus, the focus of CCE is on 'assessment for learning'. The follow-up or response to the findings of assessments is crucial; assessments are not conducted as an end in themselves.

b. Assessments of student learning should happen on a 'continuous' basis: during the course of teaching. Thus, assessment is an integral part of the teaching-learning process. In addition, some summative assessments could help a formal analysis of student learning on specific concepts and skills.

c. CCE helps reduce student stress by reducing/removing emphasis on one-off year-end examinations.

d. CCE can promote greater flexibility and autonomy for the teacher, and also greater responsibility for student learning.

e. CCE can help promote equitable learning by focusing on learning needs of less advanced students. The scheme could help promote greater support and attention to these students through the use of some differential instruction.

f. CCE can promote inclusion of co-curricular and other co-scholastic aspects for development of students' overall growth and personality.

g. CCE can be effective only when the teaching-learning process is learner-centred and participatory, and creates a positive and non-threatening learning environment in the classroom with an attempt to understand the learning progress of each child.

h. Implementing a CCE scheme that focuses on improving student learning will require a review of the current understanding of learning which is centred on rote memorization. Can CCE be the trigger for this review and shift towards developing a deeper understanding of concepts?

i. CCE processes and record keeping should not be complex and burdensome for teachers as this will prevent widespread adoption.

j. Teachers need support for understanding and implementing strategies for regular formative assessments, providing feedback to students, and most importantly, for corrective action in the form of varied teaching-learning activities to address learning gaps. Some students who are one or more grade levels below need specific remedial support. Teachers also need guidance for addressing the challenges of multigrade and multilevel teaching.

k. Effective implementation of CCE requires: a reasonable class-size; availability of good teaching-learning resources like a school library in the school; high quality teacher professional development; and a learning focused and supportive environment within the education system

2.5 Nature of review: Implications for the research design

This review was not intended to be a large scale survey of CCE implementation that

could make generalizations about schools for any state, district or even a block. This was also not conceived strictly as an evaluation of the CCE approach and implementation in the six states. One reason for not planning a standard 'evaluation design' was that CCE implementation is fairly recent in most states. Being a new concept it would take time to stabilize. Therefore, a strict evaluation design would be more appropriate a year or two later. However, this was the right stage to undertake an in-depth analysis of the concept and design of CCE schemes in these states, understand the perceptions about CCE among different stakeholders in the education system, and review CCE practice at the school level. Such an analysis could provide a basis for discussion and debate about how CCE has been conceived, designed and implemented in different states. Based on the findings, it would be easier for states to consider modifications or strengthening of the scheme in the early years.

The CCE review was designed as an in-depth, qualitative analysis of the CCE approach and implementation, with the inquiry covering all levels from the state to the school and almost all stakeholders responsible for the design, implementation and monitoring of CCE. Therefore, only a small number of schools, clusters, blocks and districts were chosen in each state to help provide a rich flavour of CCE implementation. In some ways, the review can be characterized as a 'case study' of selected schools in a state. While, such a small sample cannot claim to represent the state, it was clear from discussion at various levels that CCE practices observed in selected classrooms and the perceptions of various stakeholder groups could be fairly similar in other parts of the blocks, districts and state. Therefore, the findings of this review could be applicable to a majority of schools within a state.

The sample selection criteria ensured that the districts and blocks selected in each state were a mix of 'good' and 'average' in terms of the perceived quality of CCE implementation.

In reality, the schools observed in most states had better 'basic learning conditions' (mainly teacher availability, location in a socioeconomically 'better-off' area) than the average for the state. For example, in Bihar, the schools selected had an average PTR of less than 20:1; while the state-level PTR for primary sections is around 55:1. Also, except for Uttar Pradesh, most states included a majority of upper primary schools (Grades I-VIII) in the sample as they had more teachers and better infrastructure. Obviously, the selected schools had far better enabling conditions than most others in the state. This was useful as it provided an opportunity to understand how CCE was being perceived and practised in schools that had a more favourable learning environment. The criteria for selection of the sample are described in a later section.

2.6 Design of the review

2.6.1 Overview of design

Drawing from the nature of the review, especially:

a. Qualitative, in-depth nature;

b. Need to include perceptions and practice of all stakeholders connected with CCE design and implementation; and

c. Need for triangulation of data from various sources including classroom observation, interviews, FGDs, etc., a multiple-method research design was developed. This helped to provide a holistic understanding of the situation regarding CCE implementation across levels. Given the qualitative nature of the review and comprehensive data collection, it was possible to arrive at an in-depth analysis and interpretation of the situation and suggest some reasons or factors that have led to the observed situation.

Table 1: Objective and research methods map

Objective	Research activity/method
Original conceptualization of CCE (intended model)	Desk analysis of CCE documents FGD with state team
Understanding of CCE down the line	FGD with state team FGD at DIETs/BRCs/CRCs; and with DEO/BEO Interviews with teachers and HM
Nature of implementation in school/classrooms	Classroom observations Teacher and HM interviews FGD with trainers/academic support personnel
Strengths, limitations and constraints	Desk analysis and FGD with state team FGD with trainers/academic support personnel and DEO/BEO School level field work

Table 2: Research methods and state-wise sample

Level	Activity/method	Sample per state
School	Classroom observation	2 classrooms per school; Total 16 classrooms
	Teacher interviews	2 teachers per school; Total 16 teachers
	Head master interviews	1 per school; Total 8 head masters
District	FGD with DEO/BEOs	DEO and 2 BEOs (of blocks where field work was conducted)
	FGD with master trainers for CCE	8-10 master trainers or resource persons (RPs) for CCE training
	FGD with academic support staff	Block RPs and CRCs of the two blocks
State	FGD with state level team involved in conceptualization of CCE model and training modules	10-20 SCERT/SSA/DIET faculty and resource teachers
	Desk analysis of CCE materials	CCE manuals/teachers' handbooks and training modules

2.7 List of research activities and methods

State level

- FGD with state team including SCERT/SSA/DIET faculty and resource persons
- Desk analysis of CCE handbooks and training modules (by research team)

District level

- FGD with DEO/BEOs
- FGD with master trainers for CCE
- FGD with academic support staff from DIETs, BRCs and CRCs

School level

- Classroom observation of the teaching-learning process
- Scrutiny of CCE records and cross-checking with a few students
- Analysis of formative and summative assessment test papers
- Teachers' interviews
- Head master's interview
- Basic information about school

2.8 Triangulation

The tools were developed in a manner that facilitated triangulation of data from various sources. Information on training and academic support received from the FGD at state level was compared with information provided through district level FGDs, and further checked with statements of teachers during interviews. At the school level, a variety of research methods and tools were used to study the understanding, perceptions and practice of CCE to ensure that data from various tools could be triangulated to arrive at a good understanding of the real situation. For example, information from the teacher's interview on 'addressing needs of less advanced students' was cross-checked with actual practice during classroom observation. Similarly, the record of student achievement or grades for a subject was

cross-checked by looking at the answer sheet of the test and the grade recorded for that student in a particular assessment. The 'School Analytical Summary' was arrived at after intense discussions within the state research team and scrutiny of data from all school and classroom instruments. Thus, triangulation of data and interpretation happened each day for each school.

2.9 Sample

2.9.1 State selection

The selection of states for the review did not follow any major criteria. National (geographic) representation of the sample from northern, eastern, western and southern states was ensured by choosing Uttar Pradesh from the north, Bihar and Odisha from the east, Rajasthan and Gujarat from the west, Maharashtra from central India and Tamil Nadu from the south, as there could be insights in to the implementation of CCE in a multilevel ABL environment. However, owing to some procedural issues, the review could not be conducted in Tamil Nadu. The selected states also offered contrasting examples of the approach to CCE implementation.

- **Number of years of implementation:** Gujarat and Maharashtra are two states where CCE was first implemented almost four years back, while in Odisha the scheme has been systematically implemented only from 2014-15.

- **Emphasis on CCE:** Gujarat, Maharashtra and Rajasthan implemented comprehensive curricular reforms after NCF 2005 which supported CCE. Maharashtra has conducted four rounds of CCE training in the past four years, while Bihar has not yet conducted any training of teachers for CCE.

- **Phasing of CCE implementation:** Rajasthan and Uttar Pradesh implemented CCE in a phased manner over the past three years; Gujarat piloted CCE in 566 schools for a year and then scaled up across the state; while the others chose immediate state-wise implementation.

2.9.2 District, block and school sample

Overall
- Only government schools were selected for the review.

- In all states, except Gujarat, the review focused on CCE implementation in primary grades. In Gujarat, upper primary grades were selected since CCE was first implemented in upper primary grades, and has been extended to primary grades only from 2014-15.

- A mix of primary schools (Grades I-V) and elementary schools with upper primary sections (Grades I-VIII) were selected.

- The district, block and school selection was made primarily by, or in consultation with, state and district officials from SCERT, DIET, SSA, and DEOs and BEOs.

Selection of districts and blocks within a state
- Two districts within each state were selected purposively to include: one where CCE implementation is considered effective and another that represents the 'usual' or average district. In Rajasthan and Uttar Pradesh, a Phase-I district from the initial pilot was selected as a 'good' district. In other states, an educationally or socioeconomically better-off district was selected to represent this category.

- Two blocks within each district were selected using the same criteria (good and average). In most cases, this meant selection of one block with better connectivity or adjacent to the district headquarter and the other in a more remote location.

- One cluster was identified within each block on the basis of convenience.

Selection of schools
- The same criterion of 'good' and 'average' school was used within a cluster to select two schools per cluster. However, the state agency, in most states, selected more schools that had an adequate number of teachers, good teachers and/or head masters and were easily accessible by a main road.

- While, the research team followed the list of schools finalized by DIETs/DEOs/BEOs, in three states, one new school (not on the list) was included to provide a better representation of the nature of schools in the district, e.g., multigrade teaching situation, not being on the roadside, etc.

Selection of classrooms and teachers

- One language (state/regional language used as medium of instruction) or mathematics class/period was observed in Grades II and IV. If any of these grades could not be observed for any reason, a class in Grade III or V were observed. Thus, two classes (one language, the other mathematics) were observed in each school. In Gujarat, one class each in Grade VI and VIII were observed. Teachers of classes that were observed were interviewed.

Some aspects of the school samples across states: Better enabling environment than the average for the district or state

- All schools, except three, were located adjacent to a pucca road.

- A majority of schools in all states, except Uttar Pradesh, were elementary schools (Grades I-VIII). These schools, generally, have a better infrastructure and teacher availability compared with primary schools.

- The PTR in almost all schools was in the desired range (between 8:1 and 35:1), except in a few schools in Gujarat and Bihar.

- The class-size of the classes observed was between 8 and 33 in all states, except Gujarat and Bihar. In these two states, several classes had between 40 and 70 students.

2.10 Research instruments used for the review

In view of the objectives of the research, the national core team members drew up the draft instruments for the review. As mentioned earlier, each of the core team members has extensive experience of qualitative research, classroom processes, education structures and the concept of CCE. Some of these instruments have been adapted from instruments used in earlier empirical research (Jhingran 2012). These draft instruments were sent to state research teams for comments. The draft instruments were discussed in a two day workshop where each state team (including representatives from SCERT and DIET who had helped develop and implement CCE in their states) made suggestions. The instruments were then finalized with further inputs from the core team. The research instruments may are found in the appendices to the report. The state research teams translated some or all of the research instruments in to the local language, as needed. An outline of these instruments is presented below:

2.10.1 School level

This included observations on the following dimensions:

- physical environment;
- classroom culture/climate;
- students' engagement in the teaching-learning process;
- overall teaching-learning process;
- evidence of classroom assessment;
- equitable classroom process and support to weaker students; and
- looking at students' work (notebooks).

The state research teams observed the classroom teaching-learning process to help triangulate information from other sources like the teachers' interview and review of CCE records.

The limited focus of analysis of data from the classroom observations was to look for:

a. Evidence of regular assessment and response or follow-up to assessment; and

b. Conduciveness or otherwise of the classroom process to inclusion of CCE (continuous and comprehensive assessment).

Documentation of lesson flow/sequence:
A breakdown (with time distribution) of

the sequence of activities in the class that describes what the teacher and students (separately) were doing during the class at different points in time.

Questions asked: Documentation of the number and nature of questions asked by the teacher and students' response. Also, questions asked by the students.

Scrutiny of CCE records: The CCE records studied included: teacher's lesson diary; student-wise, subject-wise record of learning progress; student portfolios; and report cards. This also involved checking student-wise CCE progress records (grades and qualitative observations) of 2-3 students (one who seemed to be advanced, and at least one who seemed to be lagging behind) and comparing their classwork and 'real' achievement level.

Teacher interview: This was a semi-structured interview instrument. The major dimensions included were:
a. Conceptual understanding of CCE;
b. Strategies for assessment and recording progress and teacher's observations;
c. Discussion about CCE records and learning of 2-3 students;
d. Perception about training and academic support;
e. Usefulness and use of CCE records for follow-up action; and
f. Challenges and recommendations.

Head master/head teacher interview: This semi-structured interview included questions relating to:
a. Understanding of CCE;
b. Strengths and constraints of CCE in the school;
c. Changes in classroom process following introduction of CCE;
d. HM's role in supporting and reviewing CCE implementation;
e. Perception about academic support and monitoring of classroom process including CCE; and
f. Suggestions for better implementation of CCE.

2.10.2 District level

FGD with master trainers for CCE training: This FGD included themes like:
a. Understanding of CCE;
b. Description of the teacher training programme for CCE;
c. Trainers' role and capacity to explain classroom practice of different aspects of CCE;
d. Perceptions about the CCE system; and
e. Challenges and recommendations.

FGD with academic support staff (BRC/CRC): The themes were designed to understand:
a. Their conceptual understanding of CCE;
b. Perceptions about teachers' acceptance and adoption of CCE practice;
c. Changes in the teaching-learning process;
d. Their own preparation to guide and support CCE implementation;
e. Frequency of school visits and nature of on-site support provided; and
f. Recommendations for improvement of the CCE system.

Interview/FGD with educational administrators (DEOs and BEOs): This FGD explored
a. Understanding of CCE and quality improvement of the administrators;
b. Their perception about the usefulness of CCE in improving quality of education and student learning;
c. Response of teachers to the introduction of CCE;
d. Monitoring and support mechanisms for CCE in schools;
e. Recommendations for improving CCE implementation.

2.10.3 State level

Desk analysis of CCE documents: Focus of the analysis
a. A conceptual framework related to assessment and teaching-learning process; growth perspectives of CCE; and feedback and response based on regular assessment for modifying the teaching-

learning process and improving student learning, etc.

b. Focus on co-curricular and co-scholastic aspects.

c. Learning indicators; methods for formative and summative assessment; and recording of assessment data.

d. Dealing with diversity and multiple learning levels in the classroom and strategies for supporting students who lag behind.

e. Nature, frequency and number of CCE records.

f. Usability of CCE manuals and handbooks.

FGD with state team that conceptualized the CCE scheme: This activity was carried out prior to the field work to get a clear perspective and vision from the state team about CCE. The FGD explored the following dimensions:

a. Development and roll-out of CCE;

b. Salient features of the scheme;

c. Response of the CCE design to state-specific concerns and situations;

d. Consultative process with stakeholders;

e. Assessment processes prescribed and records to be kept;

f. Follow-up action to assessment;

g. Nature of training programmes and academic support;

h. Feedback, review and response mechanism at different levels; and

i. Limitations and suggestions for the CCE scheme.

2.11 Process and stages of the review

2.11.1 Research team composition

Since this was not a formal evaluation of the CCE process, the review was not carried out by an entirely 'external' team. In fact, this was a collaborative effort between UNICEF and the state government. In all states, the research team had a representation from the SCERT or faculty from DIET who had been involved in CCE design or implementation, and a UNICEF consultant. The collaborative nature of research helped ensure greater

ownership of the study findings. In addition to the state level research team, a national core team member was present for almost one half of the duration of field work to guide the team and take part in some school level field work and also in the district and state level FGDs. During the field work, research teams were in touch with each other, their core team members and the national coordinator to seek clarification on the instruments and share unexpected developments or learning on a regular basis. The three national core team members had immense experience in qualitative research, classroom observations and a deep understanding of state education systems. One of the advantages of having key faculty from SCERT/DIET on the research team was that they had already communicated findings from the research to the state level.

2.11.2 Stages of the review

- Desk review of state CCE documents (June-July 2014).

- National workshop for sharing research instruments and orientation of the state research teams (August 2014).

- State, district and school level research (September 2014).

- National sharing workshop to discuss findings (October 2014).

- Final analysis and report writing (November 2014 to March 2015).

2.11.3 Reports prepared by each team

The research teams produced final versions of the record from data collected through each instrument (FGDs, interviews, classroom observations and school information) for each school, district and the state. In addition, they compiled analytical reports that were crucial in the discussions and analysis at the national level.

School analytical summary

This summary documented the following for each school visited.

- Understanding of conceptual underpinning of CCE.

- Understanding and implementation of student assessments, both scholastic

and non-scholastic and maintenance of records.

- Whether the assessment and recording requirements were practical, given the school situation.

- Whether the observed classroom teaching-learning process was conducive to CCE.

- Whether CCE (including records) is useful and used by teachers to adjust teaching-learning process or improve student learning.

- What were teachers' concerns or difficulty about CCE (design and implementation)? What was the considered view point of the research team about issues and challenges of CCE implementation in the school?

State analytical summary

- Overall findings (including differences) relating to school level implementation on these dimensions: (a) conceptual understanding of CCE; (b) teaching-learning process; (c) assessment processes; (d) record keeping and follow-up from records; and (e) focus on co-scholastic aspects.

- How similar/different were the school situations compared with the 'intended' CCE design?

- What factors seem to be contributing to these observed school situations? These included: (a) factors relating to the design of the CCE scheme; and (b) factors related to implementation processes and arrangements.

2.12 Limitations of the review design

- Small sample of schools; findings could not be generalized for any geographic or administrative unit.

- Classroom observations were conducted on a single day. Thus, there was no time-triangulation through repeated visits. The teaching-learning process could be contrived in several classrooms to reflect a teacher trying to engage students in different activities more than s/he would usually do. In several classrooms, the research team noted that teachers were re-teaching or revising lessons from the textbook that they had already taught earlier. In some schools, CCE records had been completed hurriedly in anticipation of the research team's visit.

- Visits to schools were not surprise visits. Except for one substituted school in each district, in three states, there was a week's notice or more. In two states, head masters had received briefings from the DIET or BEO about presenting a positive picture to the 'central team'.

- The involvement of an SCERT/DIET faculty member as a part of the research team affected, to some extent, the nature of response from school teachers, CRCs/BRCs/DIETs during field work. It is likely that the perceptions about CCE were stated more positively because of the presence of the SCERT/DIET representative.

Table 3: CCE models in the six states

The following table shows the CCE models in each of the 6 states:

Year of Start	Bihar	Gujarat	Maharashtra	
	2012-13	2011-12	2010-11	
Phasing	Even though Bihar has been implementing various models of evaluation since 1993, the CCE module was piloted in 2011 12 in 48 schools, and scaled up to all schools from 2012-13	In the first phase, there was a pilot conducted in 566 schools of five different geographically located blocks in 2011-12. The CCE in Grade VI-VIII was then scaled up across the state in year 2012-13 whereas the second pilot was done in one block of each district for Grade I- V. The CCE for Grade I-V was scaled up in year 2013-14.	There was no phasing in the roll out plan, CCE was implemented simultaneously in all state-run and aided schools from 2010-11 for Grade I-VII which at that time consisted of the primary level. There was no pilot stage.	
Grades Included	I-VIII	I-VIII	I-VIII	
Learning Indicators	Subject-specific learning indicators identified	Grade-wise and subject wise learning indicators identified. Teachers are expected to select 20 indicators per semester for formative assessment	Indicators are not defined in the CCE material, making assessments a random selection of learning outcomes.	
Assessment framework	At the design level, the CCE handbook lists neither the assessment procedures nor the frequency of formative assessment & summative assessment.	Academic assessment consists of 3 parts: Formative (40%), summative (40%) and assessment of self learning (20%)	3 techniques to evaluate co-scholastic and give grades; and 7 techniques of formative assessment are prescribed and give marks. formative assessment can be done any time of the year, summative assessment for scholastic subjects to be conducted twice a year. Aggregation for formative assessment & summative assessment to be done for arriving at final grades.	
CCE Formats	1. Student report card 2. Teachers diary 3. Individual portfolio 4. Child profile 5. School pro-gress report and teachers report card	1. Student cumulative sheet 2. Teachers diary 3. Lesson diary and daily observation sheets 4. Collection of work samples 5. Child profile	1. Progress report card 2. Teachers diary 3. Child portfolio 4. Assessment formats- teacher's diary checklist (formative), progress report checklist (summative) 5. Baseline tool, placement tool, planning format and weekly review format	
Training	No training has been given to teachers and CRCs on CCE	No separate training on CCE was organized. It was covered during a 6 day teacher training on curriculum.	Training for all teachers of government run and aided elementary schools was held four times in the four years since the introduction of the scheme.	

	Odisha	Rajasthan	Uttar Pradesh
	2013-14	**2010-11**	**2011-12**
	The scheme has been rolled out in 2013-14 in all government and aided schools with primary and upper primary sections.	In 2010-11, a pilot in 60 primary schools was done in Alwar and Jaipur. In 2011-12, it was introduced in 60 upper primary schools and 23 KGBVs. In 2012-13, it was disseminated in 3,059 schools. In 2013-14, it was taken forward in 9 blocks, reaching out to 5,500 schools. In 2014-15, CCE was introduced in 22,200 schools in the state.	The roll-out of CCE has happened in phases. In phase I (2011-12), development of CCE strategy and handbook and trialling for five months in 25 primary and upper primary schools in 5 selected districts. In Phase II (2012-13 & 2013-14), a five day training was organized for all the teachers of the five districts during 2013-14.
	I-VIII	I-VIII	I-VIII
	Learning indicators are not identified in the CCE framework, though the subject includes specific learning competency. There is no assessment against specific indicators rather on assessment on periodic basis.	Students' learning achievement is recorded each month against a set of indicators organized under sub-domains fixed for each term.	Learning indicators have been developed in language, maths, science, social studies, work experience, art, music and physical education, which are suggestive in nature. They are suggested and give teachers the flexibility to choose. The indicators are illustrative and are linked to curricular objectives, but not to specific lessons of the textbook.
	Curricular are as (6 times; 4 formative assessments & 2 summative assessments), Co-curricular areas (4 times, no formal assessment), Sociopersonal qualities (4 times no formal assessment)	A placement test is done to assess students' levels at the beginning of the year. formative assessment is ongoing, summative assessment for each subject 4 times a year at the end of each term. Final grade based on formative assessment & summative assessment. Co-curricular activities evaluated 2 times a year and socio- personal qualities 2 times in a year.	The framework focuses on assessment practices and does not give practical guidance on the use of formative assessment or summative assessment in real classroom situations. No marks or grades are allocated and only qualitative comments are to be made against indicators
	1. Progress report card 2. Teachers diary 3. Students' portfolio 4. Register of marks and grades	1. Individual report card and individual cumulative report card 2. Teachers diary 3. Individual portfolio 4. Formative evaluation description record book and CCE marks record book	1. Student progress card 2. Teachers diary 3. Collection of work samples 4. Student cumulative sheet
	4 day training on CCE was given in the academic session 2013-14 to all teachers in a cascade manner with a team of master trainers selected at the State level.	6 day training done in a cascade manner with a team of master trainers selected from primary school teachers.	Teachers of 5 pilot districts were provided training for 3-5 days in 2012-13 & 2013-14 respectively, in a cascade manner.

Chapter 3

MAJOR STATE SPECIFIC FINDINGS: DESIGN AND IMPLEMENTATION

3.1 BIHAR

3.1.1 History, development and roll-out of CCE

History

Even though Bihar has been implementing various models of evaluation since 1993, the CCE module was piloted in 2011-12 in 48 schools, and scaled up to all schools from 2012-13.

Integration with the larger framework of quality improvement

There has been no conscious effort to facilitate integration of CCE with the larger framework of quality. The state had

developed learning indicators for each class, which the teachers were expected to use in their classroom. It was expected that teachers would assess students according to these learning outcomes.

The state had also developed learning facilitating manuals (LFMs) for language and mathematics. They are not CCE documents per se but have a facilitative role in CCE implementation. LFMs are guides for teaching-learning activities for teachers that are based on Grade I-V language and mathematics textbooks. These are available across the schools of Bihar. They contain instructions and exercises that can play a facilitative role in the ongoing assessment of children.

Process and rollout

The process of development of the CCE model involved examining two different approaches – CBSE and NCERT. The state government also looked at some materials used in Chhattisgarh. There was a long process of development of material through workshops in which representatives from Bihar Education Project Council, SCERT, and teachers participated.

After this exercise, the SCERT developed an alternate module, which involved development of a simple report card format with 12 learning indicators for each grade that would be discussed with parents every four months. A 'star' system of grading was used so that non-literate parents could understand (students are awarded one, two or three stars depending on their level of progress on each indicator). Since the PTR is very high in Bihar, the government wanted to make sure that the CCE model is simple with simple formats of the children's progress on the 12 learning indicators.

The state also developed the following documents for the implementation of CCE: Handbook on CCE for Elementary School Teachers, Student Report Card: Grade 1-V, Teacher Report Card and School Report Card: Elementary and Secondary. The Handbook on CCE for Elementary School Teachers comprehensively

covers various topics related to CCE ranging from preparation of classroom to engagement of parents. The approach is iterative and suggestive rather than prescriptive. In general, the concept and spirit of CCE is well explained. The manual could have been better organized to make it crisper and reader friendly, but it does serve the purpose of being a facilitative manual on CCE for teachers.

While the CCE manual and formats have been developed in the state, teachers, BRCs and CRCs require comprehensive training and handholding to implement CCE effectively. As will be discussed later, while the state has developed a range of documents, no training was offered to teachers on how to use these in classrooms. It has been assumed that teachers would go through these documents and understand the spirit of CCE, as well as how to operationalize it in the classrooms.

3.1.2 Theoretical underpinning and its understanding in the field

CCE has been visualized as a pedagogical approach in which the teaching-learning process is modified according to the needs of all children. According to the state manual for CCE, it is an evaluation of the teaching-learning process and not of the students. Teachers of both the districts viewed CCE as evaluation of children during classroom teaching. Continuous and Comprehensive Teaching (CCT) is recognized as a prerequisite for CCE.

By reviewing the state level materials and discussions, it was clear that state personnel who were involved in the conception of CCE for the state were clear about the concept of CCE. The framework seems to be adequate, simple and comprehensive. There are a few issues with the model itself including:

a. Learning indicators are not framed for multilevel classrooms;

b. No learning indicators for assessment of co-scholastic areas are included; and

c. No guidelines for summative assessments are included.

In the field

The interactions with all the stakeholders suggest that there is very little understanding of CCE amongst them, especially amongst teachers. Some teachers had never heard of CCE. Those of them, who had heard of CCE, explained it as a set of formats used for record keeping. Some, including the HMs, said it was a way to track the progress of children more routinely/regularly. But none mentioned CCE as a way for teachers to understand how to adapt teaching to the actual needs of children. None mentioned co-scholastic areas. For example, one teacher said, *"mulyankan hai. Baar baar karte hain. Hum bachhon ko jo padhate hein, unka baar baar mulyankan karte hein. Is se bachhe bhoolte nahin hain, jyada din tak unke dimag mein rehta hai."*? One teacher expressed that the difference between examination and CCE is that in examination, children can copy each other's work and cheat whereas with CCE, they cannot and so their real status can be recorded.

There are no guidelines given to the teachers on how to design summative assessments. Teachers in one district were taking monthly tests but this was not observed in the other district. Thus, the lack of clarity has led to a situation where teachers are doing what they understand, without a clear vision or understanding of assessment.

Without exception, CCE is being viewed as a standalone system. No connection was made with teaching or learning. Several teachers made remarks like "earlier we had to do CCE; now CCE has been stopped and we are using LFMs" (a step-by-step guide to transacting each lesson). The LFM also has a short CCE type book of indicators, intended for teachers to assess children's progress after each lesson. But since CCE has been stopped, this section of the LFM is not being used. The idea that CCE is a process rather than a defined set of formats does not exist amongst the stakeholders.

3.1.3 Assessments and recording Model for assessment

The CCE Handbook for Elementary School Teachers is the only document that has some, though limited guidance about the model of assessment, which teachers should follow in schools. In the absence of training, this remains the only source through which teachers can get some clarity. At the design level, the document lists neither assessment procedures nor frequency of formative assessment or summative assessment. It also does not cover teachers' evaluation of students on learning indicators. The document lists the ways in which teachers can assess children in different grades. For example, it suggests that in case of Grade I-II, the assessment process should use observation of children as the basic tool. For children in Grades III-V, written and oral activities should also form basis of assessment. For Grades VI-VIII, formal exams should be introduced to train children psychologically to handle such situations.

The document also suggests other tools that could help teachers assess, though it does not directly present a model clearly. It mentions that teachers should maintain children's portfolios that describe their background, preserve drawings, and provide descriptions of curricular and co-curricular activities of children. Similarly, it asks teachers to keep records of children's questions in classrooms and do an analysis of child's participation in activities. It asks teachers to develop comprehensive report cards on different subjects. While doing so, it does not share explicitly how teachers should conduct summative and formative assessments, how teachers could assess using learning indicators, etc. The document presents the model in a fluid manner and leaves a lot for the teacher to interpret and plan in his/her own way.

Learning indicators

Learning indicators were identified on the basis of curriculum and textbooks. The indicators for subject-specific progress are clear, precise and objective, as shared in the CCE Handbook.

Co-scholastic areas identified for assessment are the same for all grades: logically there is no flaw in this approach as the teacher may decide to judge the same indicator differently in children of different grades. For example, a Grade I student may be called cooperative if she gives back a pencil to a peer who accidently dropped it. Amongst Grade V students, the teacher may try to observe some other signs of cooperation: helping peers who are mispronouncing a word. A clear description of differentiated indicators across grades would be needed for co-scholastic areas.

Assessment process in the field

The methods by which all the teachers were informally assessing their students during the course of teaching were through oral questions or calling students to the blackboard to solve mathematical problems. None of them were recording their assessment during the course of teaching.

Through interactions with various stakeholders in the field, it is clear that there does not seem to be implementation of the CCE model at present. There seems to be confusion between the head masters and teachers about whether they are supposed to implement CCE in the present year or not. So they are not keeping records, i.e. they were not doing CCE, according to them. A few teachers said that a trainer told them to stop doing CCE. They have not received any CCE formats last year either.

CCE was implemented only for one year, 2012-13. On the basis of teachers' interviews, it is clear that the teachers are not clear about the evaluation process. They were not aware about what they have to do, how and when to do the assessment. The only understanding they seem to have is that they have to fill some records.

Table 4: Assessment and recording requirement in Bihar

S. No	Format	Description	Frequency of recording
1.	School progress report	School report cards are to be used by head teachers. They also have a comprehensive set of indicators that assess schools based on several areas ranging from physical infrastructure to learning levels, and are to be filled up on a quarterly basis.	Once a year
2.	Student report card	a. Basic details about the student, i.e., name, age, village, name of father and mother, height, weight and blood group of child, etc.; b. Attendance over the months c. Date of receiving various entitlements d. Progress in Hindi e. Progress in English, maths and environmental studies; and f. Progress in other areas, e.g., regularity, timeliness, cooperation, creativity, etc.	Once in four months. To be shared with parents
3.	Teacher report card	It is a reflective tool for teachers having sections to be filled up by themselves, sections to be jointly filled with the head teacher, and those to be filled up by head teacher alone. On each indicator, teachers have to rate themselves on scale of 1-3 with specific descriptions to facilitate rating, Three being highest and one the lowest.	Once a year
4.	Teacher diary	Expected to be a reflection and planning document, though clear guidelines have not been shared.	Daily
5.	Individual portfolio	Child portfolio includes three aspects: a. Child profile A - background data on child (about family, child's health, etc.); b. Child profile B - child's curricular progress; and c. Child portfolio - assimilation of child's drawings, writing samples, questions s/he has asked in class, etc.	Ongoing through the year

In classroom practice, methods of assessment were no different from what they were earlier in more traditional systems of assessment. Teachers used to ask children to copy text from the blackboard, memorize both word meanings and the right answer to questions, and assessments were made on that basis. No new methods of assessment were used. No new activities/opportunities were provided to children in order to assess other areas (e.g., co-scholastic areas).

Co-scholastic aspects

No focus was given in any of the schools for development of co-scholastic attributes in the children. The teachers seem to be awarding children grades on co-scholastic aspects primarily because it had to be filled in the progress report. Most of the teachers could not even describe the attributes, which they were assessing for co-scholastic development in children. No opportunities for participating in co-scholastic activities were observed in any of the schools visited.

Assessment and recording requirement

Record keeping and its nature: CCE records for the current year were not present in most schools visited as part of the review. The previous year's records were also not available, as report cards had not reached the schools. In the few cases where teachers maintained some records, entries for learning levels of children did not correspond with what the research team had observed in the classrooms. There was no record of continuous evaluation being done this year. Considerable time and effort was needed to locate CCE records both for current and previous years, indicating that these were not used much. Records appeared to be mechanically filled at the end of the year. A student's portfolio and profile was not maintained. Even children's work was not displayed in classrooms. No training in maintenance of records had been provided to HMs and teachers, in CRCs and to block resource persons (BRPs). CCE records were

not being used for adjusting teaching plan/methods or for enhancing student's learning. At the design level, progress reports should be shared with parents. But teachers were unable to do it in a majority of schools due to lack of awareness among parents.

3.1.4 Observed teaching-learning process, student learning and CCE

The classroom processes in all the schools visited was traditional, not child friendly or activity centred, in any way. Teachers observed in the classrooms were in most cases either teaching below the level of the children or merely revising a chapter; or children were merely copying down some information from the blackboard/textbook. No child friendly or constructivist methods of teaching were used in the classrooms, neither were children assessed to inform a teacher's teaching. Children did not ask many questions during the teaching-learning process, nor did the teachers ask any questions to understand children's knowledge or skills in any concepts.

Use and purpose of record keeping

It was clear from looking at past records and talking to teachers that formats are filled with data that is just created for the purposes of reporting and is not actually authentic data. For child-wise records with learning indicators, all students present on a given day who could do a given task are marked with the date and a tick mark. The assessment for that indicator was blank for students who could not do the task or were absent that day – they were not assessed on that indicator.

For student report cards, students were typically marked with a 'star' for all indicators in all three assessment rounds – just to show that the format was filled. This form of record keeping expected teachers to maintain a simple report card with 12 learning indicators that would be discussed with parents every four months. A 'star' system of grading was used to help illiterate parents understand.

There were many instances where formats recorded all children at the 'can do' level and then going down to the 'needs improvement' level – evidently because the teacher had misinterpreted the meaning of the numbers assigned to each and gotten them backwards.

Teacher comments suggested that this forced format filling was done because academic support staff insisted that the records be completed for every child. Student enrolment was very high in classrooms observed and thus teachers considered record keeping a burden – a task requiring a huge amount of time, especially because absenteeism is so high that all children could not be assessed together. They did not understand that the point of CCE is for children to be assessed at different times and in different ways. The teachers interviewed did not see it as useful in any way.

Many teachers found the student report card a useful document to show parents. But again, teachers could not say in what way it was useful or whether it had changed parents' attitudes or support in any way. And they were quite honest in saying that the records themselves were made up.

Equity focus and follow-up on assessments to improve learning of all students

In all the schools observed, the last one-hour (3-4 P.M.) of school was allotted to help students who were not doing well in their studies. They were identified by the baseline tests of literacy and numeracy done by the teacher at the beginning of the session. The CCE records did not make a note of what was happening in this remedial teaching and how it connected with everything else that a child was learning in the classroom. There did not seem to be a specific focus on any socially disadvantaged groups, nor was any special attention paid to them by the teachers, whether they were children with special needs or whose attendance was irregular, etc.

3.1.5 Training and academic support

Training

Teachers in Bihar have not been trained in CCE. They have been given a handbook with details on how to implement CCE, with the hope that they will read it and use it in their classrooms. In the past, they were provided formats and manuals (no formats arrived either last year or this year) and there was neither training nor official instruction on implementation.

CCE has been touched upon in other trainings and in meetings with CRCs. But the latter seemed to focus entirely on keeping complete records.

The state team shared that 450 BEOs were trained on CCE for about two hours. A year later, they had no recollection of the training. They had issues with both conceptual understanding of CCE as well as logistical issues such as insufficient manpower and insufficient funds to facilitate school visits.

Academic support and supervision

In Bihar, CRCs are to provide academic support to schools. Since no training was given to CRCs in CCE, very little or no academic support in CCE is provided to teachers from academic support persons. In the absence of this, teachers are basically supposed to read the CCE module, understand it and incorporate it in their teaching- learning. There are no forums for them to clarify their doubts or to develop a strong understanding of what it means to assess a child in continuous and comprehensive ways.

Review and feedback mechanism

Formal mechanisms have not been established for collecting/consolidating/ discussing feedback on CCE and then making revisions. However, state officials shared that the revision of the progress report card is underway in order to make it more comprehensive. The state plans to share students' progress in March 2015 with the public in a social audit to build awareness and pressure on teachers. The

state is also planning to ensure that training on CCE is included in all training modules.

3.1.6 Systemic issues

There are significant systemic issues that hinder implementation of CCE in the state. Key challenges include high PTR, poor infrastructure, multigrade teaching, student absenteeism, huge variance in the learning levels of children in the same classroom, non-availability of textbooks on time, no specific training on CCE for teachers, head masters and academic support personnel, as well as lack of support from educational administrators. The issue of high PTR is especially significant as it hinders the implementation of CCE. In one school, in Grade II, there were 84 students, 105 in Grade III, 87 in Grade IV and 118 in Grade V. It becomes unrealistic to expect teachers to assess children in continuous and comprehensive ways in such situations.

3.1.7 Conclusion

It is clear that the state is at its infancy in implementing CCE, even though it has implemented the model in all schools. No feedback mechanisms seem to exist, which could lead to improvements of the current model. The fact that teachers understand very little of what they are expected to do in classrooms is primarily because the state has not invested in building their capacity to implement CCE effectively.

While the CCE module has been developed through a consultative process and is pretty comprehensive, a document in itself is not sufficient to implement a programme as nuanced as CCE, which is radically different from traditional forms of assessment. In the absence of any significant training for academic support staff, teachers have very little support on the ground to implement it effectively in their classrooms. The state needs to engage in a consultative exercise of getting feedback from various stakeholders and bring about the necessary changes in its current model. The state also needs to

communicate clearly through trainings that CCE is a mandate of the RTE Act and it is the form of assessment through which children should be assessed in elementary schools. The general impression amongst the teams was that CCE was implemented during 2012-13 and has been stopped after that.

> **Quotes from the field**
>
> "Till last year we were doing CCE now we have to do LFMs". *(Manuals have a section on CCE for all the chapters in the textbook).*
>
> *- A primary school teacher*
>
> "CCE should be stopped because in schools neither CCE nor exams are taking place, as a result there is no teaching in the classrooms"
>
> *- An official of the education department, during the focused group discussion*

3.2 GUJARAT*

3.2.1 History, development and rollout

History

CCE in Gujarat is known as School based Comprehensive Evaluation (SCE). It was introduced as a pilot in 566 schools during 2011-12 and scaled up across the state from 2012-13. It was developed and introduced as part of the 'total learning package', which includes textbooks, teacher editions, workbooks and CCE.

Integration with the larger framework of quality and improvement

The state resource group played an important role in developing the framework. The process included consultation with several experts from secondary education, private schools and teachers' union representatives. It was then shared with NCERT and Regional Institute of Education (RIE), Bhopal. The group that developed CCE guidelines used several documents for reference including the framework of CBSE,

The review of CCE design and implementation in Gujarat focused on the upper primary stage, Grades VI-VIII, since the state first implemented CCE in the upper primary schools

Gujarat Secondary and Higher Secondary Education Board (GSEB) and the earlier Gujarat Council of Educational Research and Training (GCERT) framework. CCE has been integrated with the revised curriculum in line with NCF 2005. The training on CCE was a part of the training of teachers on the new curriculum and textbooks.

Process of development and roll out plan

In the first phase, a pilot was conducted in 566 schools of five different geographically located blocks in 2011-12. The CCE in Grades VI-VIII was then scaled up across the state in 2012-13, and the second pilot was done in one block of each district for Grade I-V. The CCE for Grade I-V was scaled up in 2013-14. Private schools also were involved in the pilot. The pilot had a duration of a year, and continuous on-site support was provided to teachers, with the objective of collecting feedback from teachers, head teachers and CRC coordinators, as well as from state resource group (SRG) members. After this exercise, amendments were made to the model to address the issues raised by the teachers' union.

The CCE model has also evolved over the years. At the pre-pilot stage, the teachers' union raised the concern of too many formats. Accordingly, the formats were simplified and piloted in 566 schools. The feedback from all schools was received and one major change was made regarding the teachers' freedom to set examination question papers at the semester's end. The teachers were of opinion that DIET should develop question papers for the semester-end examination. Another change that was made in scholastic evaluation is that it is now more focused on learning indicators based on curriculum outcomes. Earlier, there was a focus on content. During the pilot, there were two summative examination in one semester but after feedback from teachers, it was decided to have one examination at the end of each semester. The co-scholastic assessment was done twice in a semester in the earlier system. Now, it is to be done once a semester. In August 2014, another change

was made. The summative evaluation of children who were not present during the semester-end examination, could be taken whenever they return to school.

3.2.2 Theoretical underpinning and understanding in the field

The overall approach of CCE reiterates that evaluation is a part of the teaching-learning process itself and is very important for holistic development of a child. Student evaluation is conceptualized in two parts – academic evaluation and co-scholastic achievement. Evaluation has been defined as the "process of collecting, analysing and interpreting evidence concerning learner achievement for the purpose of making a variety of decisions". The diagnostic and remedial aspects of the assessment process are also mentioned.

Within academic evaluation there are three parts: formative, summative and evaluation of self-learning work. Co-scholastic evaluation is mainly divided in to four major areas – individual and social skills, attitudes, interest area and activities of students, including work experience. The manual says that formative assessment is a continuous activity, which is an inbuilt part of the regular teaching-learning process. Summative assessment is defined as semester-end examination. Formative and summative evaluation techniques have been given in the manual and these include written, oral, activity based and project work and assignments, field visits, case studies, etc. The CCE model is based entirely on allocation of marks and grades for each kind of assessment and their aggregation to arrive at a cumulative grade.

Formative assessment, which the manual clearly describes as an integral part of teaching-learning activity includes grading and marking and a weightage in the semester and year-end final grade. The state level core group was of opinion that this is conceptually not appropriate, but needs to be done because formative assessment will not get done if it is not graded and no weightage is assigned to it.

The follow-up aspect of assessment, taking corrective action to help improve student learning is not stressed adequately in the manual. Assessment seems to be an end in itself.

In the field

Most teachers in the sample had a good conceptual understanding about CCE and its principles. They were able to recall what they had been taught in the training, the larger principles of the advantages of CCE over the conventional assessment system, as well as the practical knowledge of implementing it in their classrooms, including grading children, and assessing them on learning indicators and co-scholastic areas. A few other stakeholders including sub-district officials did not display a strong conceptual understanding of CCE including how they are supposed to monitor and support teachers in CCE when they visit classrooms.

Almost all teachers use the manual to understand learning indicators and to fill up formats. However, they have not really internalized various assessment techniques given in the manual. Students are assessed mainly through written tests. Teachers expressed that the assessment of co-scholastic aspects included in the manual is not clear, unlike the scholastic aspect which is much more concrete.

3.2.3 Assessments and recording

Model for assessment

Scholastic: The scholastic or 'academic' assessment consists of three parts:

(a) formative; (b) summative; and (c) assessment of self-learning work (students' work in their class and homework notebooks, assignments, etc.). These three components carry the following weightages: formative, 40 per cent; summative, 40 per cent; and assessment of self-learning work, 20 per cent.

Formative assessment, a continuous activity, is an integral part of the teaching-learning process. The expected learning outcomes (indicators) are listed grade-wise and subject-wise. Teachers are expected to select

20 indicators per semester for formative assessment. They are expected to observe and assess all children individually for each of these 20 indicators for each subject. For a particular indicator, if a child successfully learns the concept or skill, the teacher puts a tick ( ) mark on the formative assessment, Format A. If the child does not achieve it, the teacher puts a cross (×) mark, and if the child requires more help to achieve it, the teacher puts a question (?) mark in the format. The CCE manual suggests that the teacher should provide support and extra time to those students who need help. The teacher's aim should be to have tick marks for all students for all indicators each semester. These marks (, ×, or ?) are then converted to numbers (out of 40) and grades to arrive at the score/grades for formative assessment for each semester.

Summative assessments are semester-end examinations. These are mostly of the written type. In lower grades, an oral component is also included. Summative assessments or term-end tests are not to be held for students of Grades I and II. Self-learning assessments comprise of assessment of students' class and homework, projects and assignments. Students' final score and grade each semester for each subject is arrived at by adding the scores for formative, summative and self-learning assessments which is later converted to a grade.

Co-scholastic: The co-scholastic dimension of education is also called personality development in Gujarat. Co-scholastic assessment is divided in to four major areas: (a) personal and social values; (b) students attitude; (c) students interest areas; and (d) work experience. A teacher is expected to organize various activities to evaluate children on these dimensions. For this purpose, a total of 40 activities are to be carried out by teachers, of which, 31 are prescribed in the manual and nine are to be selected or designed by teachers themselves. For Grades I and II, 11 activities have been prescribed. Marks for co-scholastic

assessments for the terms are added and converted to grades.

The total marks for scholastic subjects and co-scholastic areas are added at the end of the year to arrive at a final grade for each student.

Learning indicators

The learning outcomes or indicators under CCE are listed grade-wise and subject-wise in the CCE manual of the state. The teachers are supposed to select 20 indicators per semester for formative assessment. Teachers are expected to observe all children individually for a particular indicator. If the child understands and meets the indicator, the teacher is expected to put a tick mark on the format. If the child does not master it, the teacher is expected to put a cross mark and if the child requires some help to

achieve, the teacher puts a question mark in the format. The manual notes that the teacher should provide support and extra time to those children who need help, with the aim that all children master and meet the various learning indicators. The guideline says that teacher should organize more learning experiences to make sure that all children achieve the learning indicators.

A big issue is that learning indicators are grade-specific and do not allow for recording progress of students who may be still grappling with skills and concepts that are one or more grade levels below the (present) grade-level indicators.

The guidance in the CCE manual on assessment of co-scholastic indicators is not very clear or concrete.

Table 5: Assessment and recording requirement in Gujarat

S. No	Name of record	Description	Frequency
1.	Teacher's diary	Class-wise, subject-wise and period-wise record of planned teaching-learning activities against each curricular learning objective and reflection after the class.	Regularly
2	formative assessment for scholastic subjects (Format A)	Subject-wise list of learning objectives and indicators achieved in each term for each student. 20 indicators per semester for each subject.	20 records for each semester for each student
3	Progress in co-scholastic domains (Format B)	40 indicators are assessed per semester by giving grades.	Per semester
4	Student report card (Format C)	Based on grades allocated for scholastic and co-scholastic areas. This is a summation of grades in Formats A and B.	Per semester
5	Comprehensive cumulative progress report (Format E)	Basic child information and cumulative progress of the student across grades until Grade VIII. It also includes information on strengths and weaknesses for each student that can be used for remediation by the teacher of the next grade.	Annual and to be signed by parents.
6	Student portfolios	Poems, art work or any other creative work of the child.	On-going throughout the year

In addition, for Grades I and II, where no semester-end summative examination is to be held, Format D is used where the teacher is expected to record: (a) activities conducted during the semester in the class related to subjects; (b) each student's performance against those selected activities for grading (A, B or C to indicate good; medium or average grades); and (c) grades for indicators relating to personality development. Thus, Formats A and B are a semester-wise record of each students' performance in formative and summative assessments (except in Grades I and II where Format D is used). Formats C and E provide consolidated information for each semester and at the end of the year.

The comprehensive cumulative progress card shows the students' progress during a particular year and across school years. This report card is shared with parents at the end of the year.

Assessment process in the field

Assessment process: During the conduct of a regular class, most teachers were not clear or had not planned the assessment to be carried out. Only two out of sixteen were conscious about what they were assessing (for which learning indicator, topic to assess children, and what they would do next).

Most teachers shared that they find the learning indicators for all subjects helpful in planning their lessons. They find the formats to be simple and explained in detail. The guidelines have clearly shared how to convert marks into grades. Everything about CCE is included in one booklet and some teachers suggested that there could be a series of booklets with subject-specific examples. A few teachers have also shared the need to explain the student portfolio in greater detail, in the booklet as well as training. During field visits it was seen that many students had a tick mark or question mark against a learning indicator in the formative assessment, even though they had clearly not understood the concept or skill. This could be on account of an expectation from the educational administrators that almost all students should achieve most of the indicators.

All formats were available to teachers in the sample schools visited during the review. In the sample schools, Format A was maintained regularly along with evidence in the form of student records in all schools. Format E was not updated in all schools except one.

Co-scholastic aspects

While the state has emphasized co-scholastic aspects in the teacher's guidelines, in the actual implementation, teachers and administrators have not laid as much emphasis on these aspects. In the sample schools, it was seen that while some teachers understood the principles behind the need for children to be taught and assessed on areas other than scholastic education, most did not value it very highly. It was observed that co-scholastic aspects are mostly assessed outside the classroom, usually during the morning assembly in which most students participate. It was also observed that in most classrooms, records of co-scholastic indicators were not regularly maintained. Also, the guidelines in the CCE manual on assessment of co-scholastic aspects like personal and social values, and student attitudes are weak.

For the dimensions of students' interest areas, co-curricular activities and work experience, the focus is on participation and performance in activities like music, drawing, drama, yoga, games, cultural programmes, quizzes and other competitions, eco-clubs, clay modelling, gardening, etc. However, such activities are not organized in schools on a regular basis. Also, only those students who are good at these activities get a chance to participate. Thus, the assessment for these aspects is made on a very general basis without adequate evidence.

Record keeping and its nature

In practice, it was found that even though teachers generally do maintain CCE records (formative assessment for scholastic and co-scholastic aspects), almost all of the formats were wrongly filled. The ideal system is to put a tick mark if child knows the concept, to put a question mark if the child knows but needs further clarification, and to use a cross mark if the child does not know the concept at all.

Teachers seem to be engaging in incorrect reporting, including putting a question mark, in cases where the child has not understood a concept at all. Sometimes it was also found that teachers have given tick marks for higher order learning outcomes to those children who were not able to read or write properly or achieve even lower order learning outcomes.

Only one school maintained and updated the 'cumulative progress card' of individual students. The rest just did it for a year and stopped.

Some teachers complained that formats were repetitive and involved considerable copying of information from the individual student-wise records.

3.2.4 Observed teaching-learning process, student learning and CCE

Teaching-learning processes

Despite teachers in the sample schools showing a strong understanding of CCE during discussion, the teaching-learning process in almost all schools was teacher-centred. In only three of sixteen classes visited, there was some element of student-centred teaching practice, including students being given individual guidance, teachers being friendly with students, and students being encouraged to ask questions. In all the remaining classrooms visited, teachers asked simple questions to students without any space for response or discussion.

No TLM, charts or models were used in any of these classes. Students were not encouraged to discuss or ask questions on what they were studying in the classrooms. It was found that in most classrooms, teachers gave students who were struggling to master the learning indicators little attention and these students were found to be inactive and passive during the teaching-learning process.

Use and purpose of record keeping

Teachers shared that CCE records were maintained just for the sake of 'maintaining' and not to help teachers plan their own teaching. However, some teachers said that

they try to re-teach the concept by using these records. Some also shared that they use CCE records for sharing children's progress in parent teacher meetings. Overall, the use of CCE records for corrective action to adjust the teaching-learning process or improve student learning was not evident.

Equity focus and follow-up on assessments to improve learning of all students

Remedial classes are organized in the evening everyday in all the schools. Teachers and peers give weak students support during these classes. They are mainly for basic literacy and numeric skill and not for grade or subject-specific learning indicators. Though remedial classes are organized, where records are maintained, they are not part of 'CCE records'.

CCE guidelines do not specifically address the issue of how a teacher is expected to evaluate children with special needs (CWSN) and maintain records for them. The guidelines also do not address the issue of multigrade teaching and the implications for teachers who implement CCE in classrooms. Teachers are not sure how remediation or re-teaching can be organized for students who are highly irregular in attendance or those who migrate seasonally.

3.2.5 Training and academic support

Training

There is only one booklet prepared for teachers – SCE Teacher Guideline. The CCE guideline for teachers is designed as a manual in which the conceptual understanding of CCE and instructions for filling up formats has been given. It focuses on evaluation and not on the teaching-learning process as a whole. There also is not much focus on how teachers should assess children in various subjects through CCE, or how teachers' evaluation of children in mathematics will vary from the evaluation in language. The teachers' edition of grade and subject-wise booklets attempts to do this.

CCE training was not separate, it was a part of the training on new curriculum

and textbooks. A six day training was organized and the CCE concept and formats were shared by the key resource persons (KRPs) through an on-air session, whereas subject-wise evaluation was explained by subject experts. A video CD of 45 minutes was prepared for CCE concepts, and has been used many times during the teachers' training.

Academic support and supervision

Monitoring and on-site support was highlighted as a challenge by stakeholders involved in the review. None of the schools included in the review had received academic support on CCE from the sub-district officials. Though CRC coordinators and BRPs were trained on CCE in both the districts, somehow it was not reflected in the field. The training given to these academic personnel was the same as that for teachers, with monitoring aspects and academic support for CCE not being covered. BRPs in both the districts, during interactions, admitted that they do not observe CCE during school visits because it is not in their job chart. CRC coordinators also do not provide support as they hardly observe classrooms. Some teachers shared that they receive support informally from teachers of other schools (while travelling together daily).

3.2.6 Systemic issues

In terms of physical infrastructure and PTR, the state has good and enabling conditions for CCE. However, teachers for arts and physical education are not in place at upper primary levels, therefore, subject teachers face difficulties in organizing activities for co-scholastic areas and evaluating them. Even though the PTR is adequate throughout the state, there is a shortage of subject teachers for mathematics and science, posing problems in implementing CCE in these subjects. Multigrade teaching is quite common and poses a challenge for student-wise assessment and record keeping.

3.2.7 Conclusion

Gujarat has made a systematic attempt to implement CCE by integrating it with the new curriculum and textbooks. Its attempt to provide weightage to formative assessment, summative examinations and students' regular work, has made the assessment model very 'formulaic' with marks, grades and weightages. The spirit of assessment as an integral part of the teaching-learning process is missing at the school level. The focus is mainly on maintenance of CCE records. The real objective of CCE to use assessments for follow-up action to adjust the teaching-learning process, and support individuals and groups of students to improve their learning is not at the forefront.

Teachers need much clearer guidance in strategies for regular multilevel teaching-learning processes since most classrooms have a multilevel learning situation. Teachers also need to be oriented on strategies for supporting students who are still struggling with skills and concepts of earlier grades. Learning indicators for formative assessment only include grade-specific skills and concepts, thus providing no space for recording progress of less advanced students and plans for remediation.

Regular monitoring and academic support for teaching-learning including CCE is almost absent. This is a big constraint in the development of teaching and assessment activities for the entire curriculum.

Records of students' progress are not being filled correctly in many schools. The usual practice is to indicate a more positive score against different learning indicators than what the student actually deserves. Reflection and dialogue with teachers is needed to understand the reasons for incorrect reporting and follow-up action. The emphasis on co-scholastic dimensions is limited. One aspect that can be strengthened is recruitment and placement of professionally trained part-time teachers for subjects like music, arts and physical education as mandated by the RTE Act.

A review of the CCE formats, in consultation with teachers would be useful to check for possible reduction in the burden of record keeping.

3.3.   MAHARASHTRA

3.3.1 History, development and roll-out of CCE

History

In 1994, Maharashtra introduced a 'competency-based syllabus' in keeping with 'minimum levels of learning', and the assessment scheme was also competency based, with periodic assessments against specific competencies. In 2000, this scheme was abandoned in favour of a more traditional assessment of regular tests and term exams. CCE was introduced in Maharashtra in 2010, and was implemented simultaneously in all government run and aided schools from the academic year 2010-11 for Grades I-VII which at that time consisted of the primary level. It is currently being implemented in Grades I-VIII, with a reducing weightage on formative evaluation and corresponding increase in weightage on end-of-term and end-of-year exams.

Integration with larger framework of quality improvement

The CCE scheme in the state was introduced with a strong focus on constructivism following the development of the state curricular framework in the same year. All trainings held for CCE included a component on constructivism and related classroom practice. Textbooks for Grades I-V were also revised in a phased manner to reflect the constructivist philosophy as well as integrate CCE. The integration of the CCE scheme into overall curricular and textbook reform and quality improvement initiatives was successful.

Process of development

The CCE scheme and materials were developed by the Maharashtra State Council for Education Research and Training (MSCERT), Pune. Initial meetings were held with the education minister, parents and teachers with wide consultations at all levels before a core team was formed and the scheme was conceptualized. The core committee consisted of MSCERT staff, academics, teachers and HMs. The committee referred to the Central Board of Secondary Education (CBSE), Indian Certificate for Secondary Education (ICSC), International General Certificate of Secondary Education (IGCSE) and International Baccalaureate (IB) pattern, studied materials and met experts before finalizing the scheme and designing formats and the manual.

During the two years following the roll-out, up to 2012, press conferences informed the public, the state audio visual cell created four episodes on the CCE concept which were broadcast, and the media, including teachers' magazines, published articles and FAQs. Small changes and additions were made during the next two years while the scheme was being implemented. These changes were based on feedback from the field through video conferencing and questionnaires. Each year, a new manual was created, and a training programme held for teachers, resulting in four manuals and four training sessions for teachers between 2010 and 2013.

MSCERT itself conducted a review of implementation of CCE in April 2014, which indicated that the scheme was being properly implemented in most schools. This finding was based on reviewing the appropriate filled out formats by teachers. At present there is no state group reviewing CCE.

Roll out plan

CCE was implemented simultaneously in all state-run and aided schools from 2010. There were no phases or a pilot stage. Trainings for all teachers of government run and aided elementary schools were held four times in the four years since the scheme's introduction. The training also incorporated teaching-learning issues and constructivism. It was held in 'cascade mode', with the core team training master trainers at the state level, who in turn trained district teams, who trained block level teachers. In some training, there was a further level of block level trainers. Training materials such as manuals were provided to all teachers during the training, and trainers created their own presentations and charts, etc. based on these manuals. In the first phase, the core state team personally attended district and block level trainings and gave inputs and feedback to the trainers.

3.3.2 Theoretical underpinning and its understanding in the field

The overall orientation of the material is towards convincing teachers that CCE will facilitate the holistic development of children and recognise their cognitive, emotional and physical growth, and not just reward their memorization ability as earlier methods of evaluation did. In fact the material clearly states that the change to child-centred constructivist teaching methods is an integral part of the CCE process.

The examination system has increased tension, competition and rote learning. Therefore, CCE is posited as a solution to eliminate problems of the examination system and fear and tension of the learner, and also the lacunae in the whole teaching-learning process. CCE reminds teachers to look for skills and talents that may not conform to the usual academic excellence categories of language and maths skills, and so on.

In the field

At all levels, conceptual understanding of CCE was quite strong, and with the exception of one or two teachers, the overall attitude was very positive towards CCE. The state team that developed the scheme contained several very senior retired SCERT staff as well as some teachers and cluster co-ordinators. They expressed a deep understanding of the purpose and value of CCE. Teachers and cluster coordinators were seen to have a good understanding of the ill effects of the exam-driven system of education. They articulated well the benefits of using the CCE scheme, including the development of a variety of skills and interests of the child, the freedom from fear and tension, and the movement away from rote memorization to exploring and learning.

What teachers lacked in understanding was how they could use CCE records for reassessing their own teaching strategies. Secondly, they had no clear strategy for managing remedial teaching.

In the case of other officials, Satara has a number of very aware and involved officials at district and block levels, while in Thane officials seemed to be not too involved except in getting the CCE record requirement fulfilled. At the state level, the core team seemed to lack field contact that would help them see practical difficulties in implementation of the scheme in its current form. Besides, by its nature the scheme does not encourage teachers to use CCE data as feedback for their own teaching, which is a big conceptual gap.

3.3.3. Assessment and recording

Model for assessment

Scholastic and co-scholastic subjects have been clearly identified and named, and techniques for evaluation of the two are also prescribed in detail. Teachers are asked to use only three techniques to evaluate co-scholastic subjects and give grades, while for scholastic subjects seven techniques of formative evaluation are prescribed, and teachers are to give marks for these. Formative evaluation can be done at any time in the term, while summative evaluation tests for scholastic subjects are to be conducted twice a year. An aggregation of formative and summative evaluation is to be made for arriving at final grades.

Scholastic and Co-scholastic assessment evaluation expected and weightage given to each in Grades I-VIII are found in Table 6 and 7 respectively.

Table 6: Scholastic assessment evaluation and weightage for first and second language, English, maths, environmental studies, science and social science

Grade	First semester (for each subject)			Second semester (for each subject)			Total
	Formative evaluation	Summative evaluation 1		Formative evaluation	Summative evaluation 2		
	(Using various techniques any time in the semester)*	Oral or practical	Written	(Using various techniques any time in the semester)*	Oral or practical	Written	
I and II	70 marks	10 marks	20 marks	70 marks	10 marks	20 marks	200
III and IV	60 marks	10 marks	30 marks	60 marks	10 marks	30 marks	200
V and VI	50 marks	10 marks	40 marks	50 marks	10 marks	40 marks	200
VI and VIII	40 marks	10 marks	50 marks	40 marks	10 marks	50 marks	200

*Specific marks are to be recorded under each technique used and then totalled.

Table 7: Scholastic assessment evaluation and weightage for art, work experience and physical education and health

Grade	First semester (for each subject)	Second semester (for each subject)	Total
I-IV	Formative evaluation 100 marks (to be assessed using only observation, practicals and activities).	Formative evaluation 100 marks (to be assessed using only observation, practicals and activities).	200 marks
V-VIII	Formative evaluation 100 marks (to be assessed using only observation, practicals and activities).	Formative evaluation 100 marks (to be assessed using only observation, practicals and activities).	200 marks

In addition, descriptive comments form a large part of the informal assessment expected from teachers, and require extensive writing in the record book and report cards.

Table 8: Assessment and recording requirement in Maharashtra

	Format	Description	Frequency of recording
1.	Daily planning book (Teacher diary)	Teachers are expected to note down the teaching plan for each day and each period, including topic, materials and activities to be used and evaluation methods to be used. No note is made of actual implementation or observations.	Daily
2.	Formative evaluation descriptive record book	Teacher has to write a few descriptive remarks about achievements and challenges for each subject for each child.	At least once a term, but no fixed time
3.	CCE marks record book	Teacher notes marks obtained in formative done at any time throughout the term using various techniques. summative assessment marks are also noted here.	Once a term
4.	Individual report cards	Marks, grades and descriptive comments for each subject are copied out here, formative and summative evaluation marks are added and converted to a grade.	Once a term
5.	Individual cumulative report card	Marks, grades, descriptive comments, health record, other personal details.	Once a year
6.	Individual portfolios	File containing examples of students work, art, craft, formative evaluation tests, writing, etc.	Ongoing through the year

Learning indicators

Indicators are not defined in CCE material, though learning objectives form an important part of the state syllabus and teacher training. Teachers are expected to evaluate students during classroom teaching-learning activities, and write descriptive comments on their learning levels. They are also expected to allocate marks for different types of evaluative activities. In fact, a substantial part of the material is devoted to generic methods of formative evaluation, with examples across grades and subjects.

Though the material states that using feedback from formative assessments is one of the main purposes of CCE, the teacher is not given guidance or examples of using learnings from formative evaluation to adjust teaching strategies. Besides, as indicators are not specified, all CCE recording is of a rather vague and general nature, and assessments are based on a random selection of learning outcomes, making the record practically useless for the current teacher or the teacher in the next grade.

Assessment process in the field

In all the schools surveyed, all the formats had been filled in by more or less the same process: teachers gave marks for formative assessment based on activities, written classwork or homework, tests, projects, etc. as defined in the manual, and either aggregated the marks of several small tests or gave specific small tasks for the purpose of giving marks. The second level of recording was the so called *'warnanatmaknondi'* or descriptive comments. These pertained to the level of skill or competency that the teacher perceived at the time of writing. For example a teacher had written: 'writes tree next to a picture of a tree' as a comment. Another had written: 'can describe a rabbit'. When asked if this described the child's achievement through the term, teachers stated that the child does much more than that, but they had made that note on a particular day. In addition, teachers had been told not to make negative comments, and therefore there were comments like 'tries to count numbers 1-100' for a child in

Grade II who the researcher found obviously lagging way behind the class in maths.

There was tremendous confusion on what to record, with teachers ending up writing random remarks about a particular moment in a child's learning journey, which told the reader absolutely nothing about the level of the child learning at the moment of reading. Marks had been allocated for each of the formative evaluation techniques. However, due to absence of indicators in the formats, the marks could refer either to an aggregation of the scores across many learning indicators, or of any one random indicator, depending on which method the teacher chose. Summative evaluations were conducted with more confidence and clarity, and therefore, marking was more specific and clear.

There was not much depth of understanding on formative evaluation techniques, and especially projects, which tended to be limited to collections of pictures or newspaper clippings on a topic or theme.

The formats in the school do not give a clear idea about students learning. The descriptive comments were too vague, and the formative evaluation marks do not tell us anything about the learning level of the child for the reasons described above. Formats were mostly up-to-date even in the schools we visited with only a few hours prior notice. Written tests were designed by teachers themselves and vetted by the HM or cluster coordinator. Most teachers expressed satisfaction with this development, as they felt that they could create tests that were appropriate for their class. The CCE manual details how to create tests (weightage to be given to objective and descriptive questions, etc.). Some complained that this added to their workload and some HMs felt that it made assessment too subjective.

Co-scholastic aspects

The CCE scheme requires teachers to use three specific formative evaluation techniques (practical work, oral work and activities) to assess these aspects, and to grade to each child each term. No

summative evaluation is expected. Teachers and HMs spoke about the importance of these aspects and opportunities that it gave students who may not excel or be interested in academic subjects. It certainly appears that more and more interest is being given to co-scholastic aspects and students' interest in these is being recognized and appreciated. However, teachers are not competent to provide the required inputs and guidance in all these areas with the promised part-time teachers not yet in place. It appears that opportunities for co-scholastic development are extremely limited, though the state syllabus is quite detailed on these areas and the expected outcomes.

Record keeping and its nature

All teachers maintained the required records, even in schools visited with very little notice. In some cases students' portfolios were missing, and in some cases cumulative records were not maintained. Daily planning records were very sketchy and did not serve the purpose of CCE records. All records are to be completed once a term, and while this did not seem to be much of a load, teachers complained of work overload. The writing of qualitative remarks for each subject for each child and for each term does impose a rather extensive writing burden on the teacher. Five of the six formats require these descriptive comments, and this means a lot of duplication, too. Booklets have been printed by private persons with readymade descriptive comments for each subject, and all teachers reported that they knew of teachers just copying from these booklets, but no one admitted to using them.

3.3.4 Observed teaching-learning process, student learning and CCE

Teaching-learning process

In most cases teachers were seen to conduct lessons using some teaching aids and referring to students experience. There was definitely a shift away from memorization and rote learning in the observed classes,

but it appeared that teachers' own understanding of the learning process was rather limited, and therefore, they were engaging students in activities but not really developing understanding of the concepts. Several teachers taught extremely good interactive Marathi lessons but focused on the content of the lesson rather than on developing reading or writing skills.

Use and purpose of record keeping

Individual report cards were sent home once a term, and served the purpose of assuring parents that students were learning and were being assessed, though they did not tell parents what the students had actually learned except in very general terms. Besides this, we did not see any use of the records either to adjust or plan teaching or remediation, or to assess teacher performance. The formats and scheme are not designed to provide this data either.

Equity focus and follow-up on assessments to improve learning of all students

In the observed lessons, weaker students were for the most part either ignored or helped to copy the 'correct' answers only. In interviews, teachers sometimes claimed to take special classes before or after school or to set up peer learning groups, while other admitted that the pressure of the syllabus and multigrade classes did not allow them to focus on weaker students. Besides this, the challenge was the presence of multigrade situations in almost all the schools seen, which compounds the problems of multilevel classes

In the case of adivasi students, teachers seemed to be of the opinion that they were not capable of achieving much, mainly because of the lifestyle of the family that involves seasonal migration, and frequent absenteeism. The adivasi children were mostly ignored, and visibly behind other students in learning levels. Teachers discounted the language difference between the home language of adivasi children and the school language,

but this would obviously be a problem for the students in early grades.

While there was more sympathy for CWSN, teachers complained of the complete absence of the promised 'special teacher' who was supposed to visit the school, teach the students, and also guide teachers on teaching and assessment. Teachers expressed anxiety about maintaining CCE records for these students.

Other issues that were not addressed by the current scheme, and which teachers have very little idea of how to handle, are irregular attendance, seasonal migration of families leading to large periods of absence of children, and remedial teaching for children who constantly lag behind.

3.3.5 Training and academic support

Training

All teachers interviewed had undergone at least three of the four trainings conducted. While most expressed satisfaction with the information provided in the training manuals, many had complaints that the resource persons who conducted training were not experts, could not guide them properly, merely delivered lectures, etc. The training as described by the state team had clearly not survived in the same form in the cascade mode.

Academic support and supervision

All CRCs have undergone the same training on CCE that teachers have. Apart from them there did not seem to be any other academic support for teachers. Teachers reported that earlier they used to discuss CCE related issues in cluster meetings, which have been discontinued. They seek guidance either from cluster coordinators, other senior teachers or the manuals.

Cluster coordinators were quite confident of giving the kind of guidance teachers required, but the DIET staff interviewed felt that they did not get a chance to go into the field and observe CCE at work and so were not in a position to guide teachers beyond the basics.

Review and feedback mechanism

CCE records are checked by HMs, cluster coordinators and sometimes by extension officers and Block Education Officers on their rare school visits. There is very little feedback to teachers except on fulfilling record keeping requirements. No one seems to be observing classroom teaching and assessment and giving teachers any feedback or guidance.

3.3.6 Systemic issues

Certain necessary conditions for CCE to be effective do not exist or are insufficient in the schools surveyed. In brief, the following affect the implementation of CCE in its best form:

- Multigrade classrooms in all the schools surveyed, even though the numbers in each grade are small;
- Absence of expertise through part-time teachers for co-scholastic aspects ;
- Delay in printed recording formats reaching teachers, or new formats delivered without any orientation given to teachers and HMs; and
- Supervisory staff insisting on 'syllabus completion' rather than CCE-oriented supportive supervision

3.3.7 Conclusion

On the positive side, a good conceptual understanding of CCE was seen in Maharashtra, right up to the level of teachers, along with a positive attitude to the new system as opposed to the old examination system. Good manuals have been developed, and all teachers have received several rounds of training. A variety of formative evaluation techniques have been accepted by teachers and are being implemented with varying degrees of efficacy.

However, the following aspects need attention.

- CCE records do not reflect learning levels of children except in very general terms, resulting in records being of no use either for remediation, for teacher accountability or for the teacher in the next grade to use as a baseline. The research team looked at records of children of vastly varying

abilities whom they had observed in the class, and found the records did not reflect this difference.

- The system of recording formative evaluation marks in its current form is rather random. Most teachers pick any one activity, class work or oral tests and give marks for them. This means that the child's formative evaluation marks are based on one skill or one test rather than reflecting the whole term's progress.

- Qualitative comments do not add any value to the assessment of the child's progress. Teachers write a remark based on a day's observation for a child, and this has very little meaning beyond that particular day. For example: 'describes a rabbit' or 'draws a tree'. The insistence on positive remarks, even in the teacher's private record, means that there are no critical remarks and no indication of learning gaps, except in a very indirect way, e.g., 'needs more practice in addition' or 'tries to do additions with double digits'. Both imply that the child cannot do additions with double digits.

- More attention is also needed for developing skills in formative evaluation. Teachers have a very sketchy idea of what projects are supposed to be like, and the same goes for activities and practicals. These skills need to be built over many onsite sessions for teachers.

Quotes from the field

"I will say something quite frankly – I myself believe that physical education, art and music are very very important for a child's development. But if you ask me to teach it, I have no idea how to do it. You can't just stand there and say, now 'play! draw! sing!'. It does not happen that way. We need specialized guidance for teachers, and regular visits to school by the specialist. Only then can we say that co-curricular areas are really being focused."

– Head master of ZP school

3.4 ODISHA

3.4.1 History, development and roll-out of CCE

History

Over the past 5-7 years, Odisha has implemented several training programmes that focus on activity based teaching-learning and frequent learner assessment. It had a system of unit tests (four in a year) for many years before the introduction of CCE. Oral tests and project work were included as a part of the unit test system. In some ways, the current CCE model is a continuation of the earlier assessment system that emphasized four unit tests and two examinations. The CCE model in Odisha has been implemented late in 2013-14 in the entire state in all schools from Grades I-VIII. Broadly, the CCE model is based on allocation of marks and grades in fixed formative and summative assessments and their aggregation.

Integration with larger framework of quality improvement

Textbooks have been revised following NCF 2005 and provide scope for a variety of teaching-learning and assessment activities. They support the overall thrust towards activity-based learning being implemented through training programmes. Several resources have been developed for teachers in recent years. For example, the Samadhan resource book provides a list of curricular objectives for each lesson of different textbooks and suggested teaching-learning activities. The remedial education programme, Sahaj, being implemented for the past two years focuses on remedial teaching on two days each week and at the beginning of the school year. This strategy seems to have been internalized by the teachers. Thus, these quality improvement initiatives do provide a foundation for the CCE scheme.

Process of development

An intensive process of development of the CCE framework was undertaken by

SCERT, Odisha, over a one year period during2011-12. This process, which involved a series of workshops, was anchored by a 15 member state-level expert group. During the process of development, experts from CBSE, RIE, Bhubaneshwar, NCERT, Educational Consultants India Limited (Ed. CIL), private secondary school principals, DIET faculty, etc. were consulted. Some parents and students were also consulted. There appears to be a strong influence of the CBSE system of CCE in the final framework.

Roll-out plan

The scheme has been rolled out in 2013-14 in all government and aided schools with primary and upper primary sections. Teachers received a four day training programme during the year, with some districts receiving training only in January-February 2014. The training programme was implemented as a four stage cascade, SRG (state level), district resource group (DRG) (district level), BRC, CRC and teachers (at the end of the cascade). The SRG and DRG included DIET faculty. Effectively, 2014-15 is the first full year of CCE implementation. Some teachers are still to receive the initial training. Training of head masters is yet to be undertaken.

Training manuals with detailed CCE guidelines have been developed for primary and upper primary levels separately. However, these have been supplied only to the trainers up to the cluster level. Teachers did not receive any material on CCE other than the formats.

3.4.2 Theoretical underpinning and its understanding in the field

The CCE framework clearly recognizes that assessment is an integral part of the teaching-learning process. The objectives of the CCE scheme include:

- Making teaching-learning process learner-centred with a focus on understanding;
- Developing all-round skills and behaviours in children; and

- Improving student learning and the teaching-learning process based on regular diagnosis and remediation.

The manual encourages a developmental model of student learning and growth. It involves continuous collection of information about the learner's progress and growth through formalized, routine and informal activities, to arrive at a comprehensive picture. The framework envisages a flexible pace of learning for each child. The teacher would diagnose the learning progress and problems of each child for corrective action. The comprehensive nature of CCE implies that all aspects of a student's personality is based on curricular, other curricular and socio-personal qualities. The model also emphasizes learning for all children and focused attention on students who were falling behind. The model relies heavily on the use of marks and grades for these assessments. Formative assessments were basically held in every two months.

In the field

The conceptual understanding of CCE at the school level was quite different from that at the state level as reflected in the CCE manual which the teachers had not received. Teachers are quite clear about the four formative assessments and two summative assessments as this is the assessment practice (four unit tests and two examinations) that has been in force for several years. Oral and project work components had also been implemented before introducing CCE. However, aspects like assessment of growth or learning progress of each child, diverse learning styles and pace, diagnosis of learning problems, focus on assessment during the course of teaching, designing support strategies for all children, and shift in focus from rote memorization to understanding concepts and practice of skills are much less understood. Teachers seem to have understood that they need to focus on student learning and that some children

require extra or remedial support. This is also the theme of the Sahaj programme initiated by SSA. However, remedial instruction is seen as a discrete activity to be undertaken once or twice a week (Wednesdays and Saturdays) and not be regularly based on continuous formative assessment and corrective action.

Trainers at CRC, BRC and DIET levels demonstrated a better understanding of the concept of CCE. However, almost none of the trainers (including resource teachers) had actually practiced the aspects of continuous assessment and adjustment of the teaching-learning process and ongoing support to weaker students.

3.4.3 Assessment and recording

Model for assessment

Areas of learning assessment
- Curricular areas: Includes languages, mathematics, general science and social studies

- Other curricular areas: They have two components:
  a. Art education; physical education; and work experience
  b. Other curricular activities – language related skills (reading, recitation, etc.), scientific skill, games, sports and others (participation in cultural activities, school cabinet, Meena Manch, etc.)

- Socio-personal qualities: Cleanliness, cooperation, punctuality, respect towards superiors, environmental awareness, etc.

The main emphasis for curricular areas is on six formal assessments during the academic year including four formative assessments and two summative assessments.

Formal assessment methods and frequency

Area of assessment	Periodicity/year	Tools & techniques	Scoring
Curricular areas	6 times; 4 formative assessments & 2 summative assessments	Written tests, Oral tests & projects	Marks converted to 5 point grading
Other curricular areas	4 times (no formal assessment)	Observation, checklist, portfolio, rating scale	3 point grading
Socio-personal qualities	4 times (no formal assessment)	Observation and other techniques	3 point grading

Curricular areas

The dates for the formative assessments and summative assessments have been fixed centrally. The tests include three components: (a) written; (b) oral; and (c) other tools and techniques. The oral component is allocated only five marks (out of 30) and is, therefore, not considered too important. Under 'other tools and techniques' a variety of assessment activities have been suggested. Any of these tasks may be used by the teacher depending upon the nature of the unit, desired learning outcomes, availability of time, class-size and availability of resources.

In addition, regular assessment along with the teaching-learning process through observation, quizzes, individual or group work tasks, etc. have been suggested. Teachers are expected to observe all children each day, inside and outside the classroom, and record observations about learning and behaviours.

Socio-personal qualities

Complex procedures are prescribed in the CCE handbook for arriving at grades for SPQ including rating scales, checklists and rubrics based on several indicators. SPQ grades are entered at the end of each term (four times a year). Teachers are expected to keep an eye on the students – what they are doing inside the class room, in the prayer class, during midday meal (MDM), in the playground, within the peer group and more. They are expected to keep regular notes of important events, situations and activities which are indicative of these qualities in students. Based upon such notes teachers are expected to arrive at grades for each child.

The dimensions of socio-personal qualities selected for Grades III-V are: cleanliness (personal and social); cooperation; responsibility; punctuality; environmental awareness and protection; love for physical labor; and respect toward superiors. These seem to be an arbitrary set of qualities selected for assessment. For each of these qualities, students receive a score of one or zero for selected indicators that represent these qualities. The total score for all the indicators is then converted to an overall grade for SPQs for a particular term. Thus, a grade of B or C does not really indicate what the student was good or not so good at.

Use of indicators

Learning indicators are not identified in the CCE framework, though the curriculum includes learning objectives. There is no assessment against specific indicators. Overall marks and grades are given against a test that may cover several topics or skill areas based on specific learning competency. Thus, there is no assessment that assesses or a format that records students' progress against specific skill areas.

Table 9: Assessment and recording requirement in Odisha

	Format	Description	Frequency of recording
1	Teacher lesson diary	Lesson plans including objectives, activities, materials and assessment (based on Samadhan resource book).	Daily or monthly
2	Daily observation sheets	Teachers to record students' learning and behaviour in loose sheets on an ongoing basis.	Regularly, as needed
3	Register of marks and grades	Record of marks & grades in formative assessments and summative assessments for curricular areas and grades for other curricular and SPQs.	6 times a year; 4 times a year
4	Students' portfolio	Record of each student's creative work, remarkable achievements and important teacher notes as evidence of his/her learning and progress in other curricular areas and the socio personal qualities.	As needed
5	Progress report card	Record of grades in curricular, other curricular areas and SPQs. To be signed by the parents.	Twice a year

Assessment process in the field

Teachers focus is on the six formal assessments for the curricular areas, viz. 4 formative assessments and 2 summative assessments. The first formative assessment is designed as a baseline at the beginning of the year for assessing basic competencies of the previous grade. This is used to deliver a revision/remediation package under the Sahaj programme for the whole class during the year. The other formative assessments and summative assessments are designed by the teachers. A perusal of the teacher-developed formative assessment written tests shows that they focus on textbook content or information rather than testing skills and their application. Teachers have not received orientation on designing good test items that measure specific skills and help move focus from rote memorization to understanding and application of concepts. In addition, teachers seem to prepare tests that are pitched at a lower learning level and designed to ensure that almost every student scores at least a C grade. A 'C' grade is translated as 'Good'. However, many students in the observed classroom who had been graded 'C' in the last formative assessment (the second formative assessment of the year) were actually quite weak in competencies tested in that formative assessment. Thus, the focus is not on objective assessment, but allocation of 'pass' marks or grades. For 'other tools and techniques', most teachers used project work. However, there is lack of clarity in the guidelines, and almost any homework or assignment could qualify as project work. Project work was introduced as an assessment tool much before CCE. However, the nature of assessment activities and scoring system for project work are far from clear.

The teacher has to record marks secured for each of these three components of formative assessment (oral, written and project work) only once in one term. The guidance is that the marks for any one assessment should be recorded. Effectively, teachers only conduct one assessment of each of these three types in one term and record marks and grades. A written, oral or project work assessment can be for any specific skill or indicator. The marks for written, oral and 'other techniques' for formative assessments are aggregated and converted to one grade even though these tests are conducted for entirely different competencies. The aggregated grade makes very little sense in terms of specific student learning.

Some teachers break down the formative assessment marks question-wise or in some categories for each student. However, this analysis is not used to identify child-wise learning gaps or need for follow-up action. formative assessment and summative assessment marks and grades records are maintained neatly to show visitors and parents. Since formative assessment and summative assessment grades do not represent achievement in specific skill areas, they do not represent what a particular student can or cannot do. Thus, there is no assessment record for students' specific learning achievements or gaps which could help the teacher plan support for specific students.

Marks in the consolidated marks register are based on the prescribed weightage of formative assessments and summative assessments and through this, the final grade is arrived at. Based on this register, progress reports are to be prepared for each child at the end of each term, including grades (and remarks) in: (a) curricular areas; (b) other curricular areas; (c) co-curricular activities; and (d) SPQs. The aggregated scores and grades for formative assessments and summative assessments for each subject do not have any meaning in terms of students' learning. In fact, this approach is really in conflict with the concept of CCE enunciated in the manual. Most teachers felt the CCE scheme was 'old wine in a new bottle' as the earlier unit tests were now called formative assessments.

There was no evidence of continuous assessment during the course of teaching of subjects during the observation.

Co-scholastic assessment

While elaborate tools and techniques for assessing and grading co-scholastic dimensions are explained in the CCE framework (observation, checklist, portfolio, rating scale, rubrics, etc.), these were not being implemented. Some are complex and teachers cannot be expected to use them regularly. Also, teachers have not received the manual or training module.

Other curricular areas

For the 'other curricular areas' of art, health and physical education and work experience, most schools do not provide time on a regular basis. Nor are teachers available for these co-curricular areas. Thus, students do not get opportunities for development of these skills. Recording of grades is based on impressions or performance in a one-off event organized at school. The second component of 'other curricular areas' related to language skills, scientific skills, sports and other extra-curricular activities and was not clearly understood in most schools that were visited. In fact, most teachers and trainers were confused about the skills included and methods of assessment. While, a variety of assessment practices are suggested for these skill areas, almost all teachers made impressionistic records of assessment for this component. While grades were recorded (on a three point scale) at the end of the term, the brief remark column was blank in almost all schools.

Socio-personal qualities

For SPQs, again, the focus was merely on an impressionistic recording of grades at the end of each term. Teachers did not understand the different methods of assessment specified in the manual. The suggestion in the CCE manual (which teachers have not received) is that teachers create a set of indicators for each of the SPQs and record the student's performance against each. The student's grade would be based on the number of indicators on which the student has achieved or not achieved the expected behaviour. However, this was not being followed. Teachers could not describe the basis for assigning grades. The focus was on recording the grades and not on providing opportunities or guiding students to develop these qualities. Rather than focusing on providing greater opportunities for games, art, music, creative work, debating, quizzes, etc., teachers seem to focus on assessing students' participation and performance. In some schools, grades were allocated for SPQs, but teachers were unable to describe the basis for assigning grades. Overall, the focus on co-scholastic aspects was peripheral and tokenistic.

Record keeping and its nature

The lesson diary includes monthly and daily lesson plans. Teachers in some schools had prepared monthly plans and in some there were daily plans. Daily plans were copied from the Samadhan resource book with a mechanical listing of lesson objectives and activities. The monthly plans only indicate the day and topic in a single line. The diary is not used to record any reflections from the class that was conducted and the plan to support weaker children. The remarks column where some reflection on the classroom process and names of less advanced students could be recorded was found blank in all schools. It was a static document that does not seem to serve the purpose of either reflection or planning of teaching-learning in the classroom.

Records of formative assessment and summative assessment scores and grades were kept neatly by all teachers in the marks register. Progress report cards were found in most schools but were not shared with parents. Printed report cards were not available in any school as they had not been supplied. Therefore, student reports were not being shared with parents. In many schools, teachers were found using registers and formats available commercially

in the market. The remarks column for qualitative observations for formative assessments had not been entered.

For other curricular areas and SPQs, grades had not been assigned for all students. The remarks column was also left blank. Portfolios for individual children were not maintained. One problem faced by teachers is the lack of clarity about who (which teacher) should be recording the assessments for other curricular areas and SPQs.

Some teachers said they maintained some record of regular observations of children in loose (daily observation) sheets. However, the team could not see any of these observation sheets in any school. Student portfolios were not maintained in most schools. In a few schools, a few portfolios were stored inside cupboards and included some samples of art work made by children.

Teachers felt that the record keeping expectations were really heavy, especially where adequate teachers were not available or class size was more than 25. Also, they felt that the tools and techniques for recording 'other curricular areas' and SPQs are complex and time consuming. In the absence of printed record formats, there were significant differences in the way records were being maintained across districts.

3.4.4 Observed teaching-learning process, student learning and CCE

The teaching-learning process in most classrooms that were observed was teacher centred. Some teachers introduced activities during the lesson, but this was not systematic and the learning focus of the activities was often not clear. Use of TLM was very limited. There was hardly any group work. Copying and choral repetition were the most common activities in the language classes observed. All teachers only asked simple questions and expected a one-word choral response from students. Students were not seen asking any questions. Teachers did not seem to be focused on ensuring

active engagement of all children during the class. The focus was on completing the lessons according to the weekly/monthly schedule laid out in Samadhan. In many classrooms, teaching was pitched above the learning levels of children and the focus was on teaching the textbook. This is in contradiction to the approach of flexible pace of teaching and learning and follow-up with individual students to help them learn as suggested under CCE.

Thus, in most classrooms, the teaching-learning process was not conducive to inclusion of an effective CCE strategy.

Use and purpose of record keeping

The focus is on recording grades against curricular subjects and other co-scholastic aspects. The focus on keeping CCE records seemed to detract from the more important and much-needed focus on effective teaching-learning practices that include regular assessment and follow-up from assessment.

The assessment data was not used by teachers for any follow-up action for student learning. One of the reasons is that the assessment grades were recorded only once in 2-3 months. Also, the grades do not reflect achievements or gaps in specific learning indicators; hence they were not 'actionable'. The recording of assessment marks and grades seemed to be an end in itself.

Equity focus and follow-up on assessments to improve learning of all students

Teachers seem to have internalized the message of helping weaker children improve their learning through the Sahaj programme that emphasizes remedial teaching. This activity is undertaken once or twice a week, quite independent of CCE. Remedial teaching practice is mostly confined to re-teaching a topic or getting 'weak' students identified to do some extra copying or writing work. Weaker students are identified at the beginning of the year through the first formative assessment that serves like a

baseline for basic skills. There is no practice of identifying children's specific learning problems from formative assessment methods during the course of teaching. Some teachers had access to practice and evaluation worksheets from Pratham and found them very useful in supporting weaker students. When asked, some teachers expressed an opinion that worksheets would be really useful for providing additional practice and revision for students. They felt that resource teachers and the DIET faculty could help develop such worksheets. These can be printed or photocopied at the school level, if adequate funds are made available.

Addressing the multilevel learning situation in classrooms on a regular basis requires teacher commitment and competence and a strong understanding of strategies for dealing with diversity in the classroom, including some differential instruction. This was clearly not happening in the observed classrooms. Many teachers displayed negative attitudes towards some children who belonged to deprived home backgrounds or those who did not attend regularly. Apart from the issue of multilevel situations, the difference between the home language and school language and existence of two or more home languages in the same classroom poses a challenge for teachers in ensuring a high level of student learning. In such areas, teachers need to develop a better understanding of multilingual education strategies and appropriate attitudes for supporting such children. Only giving CCE training will not be of much help in such areas.

While revision and remediation is important for improving learning, the current remediation approach (once or twice a week) is at variance with the concept of regular assessment and follow-up during the course of teaching. It would also be helpful for the state to reflect on how the CCE and the remedial education programme could be integrated and build off each other, rather than remain two different schemes that teachers need to implement in classrooms.

3.4.5 Training and academic support

Training

Most teachers had undergone a four day training late in the academic session of 2013-14. Teachers uniformly expressed the view that training was not of good quality at the cluster level. This was confirmed by the DIET faculty and other district level trainers. Teachers did not get copies of the training module or CCE guidelines. This has further limited the impact of training. While the training module included a focus on concepts of CCE, the main message understood by teachers was about different tools and techniques of assessment, the grading process and recording of formats. The follow-up from Cluster Resource Centre Coordinators (CRCC) and Assistant Block Resource Coordinators (ABRCs) has been weak. There is lack of conceptual clarity at these levels. Also, CRCCs and ABRCs are not in a position to provide practical guidance for methods of formative assessment and follow-up to support weaker students. Their focus has remained on data collection. Educational administrators do not understand CCE properly and their visits do not reinforce effective CCE practice. Head masters' training on CCE has not been initiated. However, some good head masters were able to create a good teaching-learning environment in their schools.

Review and feedback mechanism

CCE records are checked by visiting CRCCs, BRPs and educational administrators. There is no institutionalized mechanism of collecting regular feedback on the functioning of CCE and taking follow-up action. A few DIETs with proactive principals are informally undertaking field visits and looking at CCE implementation. However, overall, DIETs and DRGs do not have the initiative and funding for regular field visits. At the state level also, there is no regular review by a dedicated group responsible for CCE. The Samikhya monitoring mechanism includes some questions on CCE implementation. However,

the data collected does not give an idea about the quality of CCE implementation.

3.4.6 Systemic issues

The following systemic issues have adversely affected good implementation of CCE:

- Multigrade teaching situation in almost all rural schools;
- Non-supply of printed CCE formats;
- Existence of multiple initiatives or programmes that cause confusion and shift focus at the school level; and
- Inadequate funds with DIETs for field visits and academic monitoring

3.4.7 Conclusion

On the positive side, there seemed to be clarity and conviction at the state level about the usefulness of CCE in bringing about change in teaching practice and student learning. The system of oral and written tests for formative and summative assessments is well established and understood. However, the spirit of formative assessment as assessment during the course of teaching is not understood at the school level. The focus is on fixed-date tests conducted for curricular subjects and allocation of marks and grades for each of these tests. These tests and aggregated marks or grades do not provide a clear picture of student learning or the need for extra support against specific skill areas. Also, since the tests are not designed properly, they have not helped shift the focus from rote memorization to learning of skills and concepts.

The results of formative and summative assessments are not used by teachers for adjusting their teaching or supporting student learning. While there is general awareness that co-scholastic areas should be given more attention, the focus right now is mainly on recording of grades and not providing opportunities for development of skills and behaviours included in 'other curricular areas' and socio-personal qualities. The assessment and grading methods suggested for co-scholastic areas are complex and not easily understood by teachers.

The CCE framework specifies too many methods, some quite complex and time consuming, for assessment and grading. This is all the more confusing because teachers have not received a copy of the CCE manual. The training has not been of great quality and follow-up to support teachers has been weak. Overall, the assessment and CCE record keeping process seems to be an end in itself instead of helping improve teaching and student learning. For implementing CCE in its true spirit, the state would benefit from looking at CCE more holistically and integrate it with its other quality improvement programmes, rather than as a standalone scheme that teachers are supposed to implement in classrooms.

Quotes from the field:

"Parents are not able to understand the performance of their child through this ABCD-type system. Teachers think the new CCE system is only renaming of the unit tests and the examination system and everything remains the same. CCE and recording in the registers is time consuming and a sheer waste of time of teachers which could be better used for teaching. Teachers don't understand how to make use of the CCE registers."

CRC Coordinator, Keonjhar district

"CCE as a concept is ideal and alluring. It is indeed interesting to watch the unfolding of each child minute by minute."

Head Master

"Assessing the child in his entirety is good thinking indeed. However, it is not being implemented in the ideal spirit. There is too much compromise to make it practical."

Head master, Keonjhar district

3.5 RAJASTHAN

3.5.1 History, development and roll-out of CCE

History

In the year 2010, the Government of Rajasthan signed a memorandum of understanding with UNICEF and Bodh Shiksha Samiti (BSS), a NGO working on education issues since 1987, to support development and implementation of a comprehensive model/scheme of pedagogy and assessment in view of the Right to Education Act 2009. The Government of Rajasthan partnered BSS to initiate CCE in government schools over four years, with the support of UNICEF. BSS continues to give technical assistance to the state government for the scheme.

Integration with larger framework of quality improvement

The CCE scheme was conceptualized and implemented in the state to address the larger issues of quality. It was preceded by the development of a new curriculum and textbooks, and revision of the pre-service teacher education curriculum. The textbooks provide scope for many student activities. Thus, CCE is seen as a part of a comprehensive process to improve the quality of education, especially the teaching-learning process.

Process of development

The state team designed the scheme and the first set of materials and tools was based on the study of:

a. NCF 2005;

b. Position papers published by NCERT on different subjects (English teaching, arts, teacher education, etc.);

c. RTE Act 2009;

d. Sourcebooks on assessments published by NCERT; and

e. State curriculum and syllabus.

Besides this, the CBSE scheme was also studied. A national consultation was held in January 2012 with the participation of 17 states implementing CCE. A team from SIERT, state and district level personnel from SSA, BSS, UNICEF and some teachers went to Kerala to study the evaluation system there. CCE materials were then prepared by this team who collectively evolved the framework of the scheme, including what it should incorporate to address the challenges of multigrade classrooms. A series of review meetings finally resulted in the first set of material/ records.

Even after the roll out, the material was revised several times, based on feedback of various stakeholders from the first and later rounds of pilot implementation. The revisions include simplification of recording formats, reduction in number of learning-level sub-groups from three to two, etc. A core committee was responsible for reviewing progress and taking necessary decisions for effective implementation of scheme. All teachers in selected schools received training on CCE. Later on, the concept of subject-wise cluster level teacher workshops was introduced to enhance teacher capacity to implement subject-specific pedagogy and assessment.

Roll out plan

2010-11:

Pilot in 60 primary schools in Alwar and Jaipur.

2011-12:

Introduced in 60 upper primary schools and 23 KGBVs.

2012-13:

Further disseminated in 3,059 schools from 33 districts across 178 blocks out of a total 257 of blocks

2013-14:

In nine blocks, 5,500 schools were covered in a whole-block approach that was adopted for introducing CCE

2014-15:

CCE was introduced in 22,200 schools

3.5.2 Theoretical underpinning and understanding in the field

The scheme was conceived to be focused not only on assessment but also on transforming the teaching-learning process to make it more student-centred and it introduced the appropriate subject-specific pedagogy. Equity was an important focus of the design and teaching-learning activities were planned for two levels of students throughout the year. For each of the summative assessments, results identified the grade level (at par with the grade or one or more grades below) of the student which could help provide focused attention to those below grade level. Cognitive aspects of the co-scholastic dimension like problem-solving, creativity, communication, logical thinking, etc. were included as a part of curricular subjects. Health education, art, music, drama and games were part of the assessment framework. It was decided not to include value education though it was part of the curriculum.

The framework and training did not emphasize record keeping. However, on the ground, understanding seemed to be different and there seems to be heavy emphasis on maintaining records. No marks were allocated. While the focus was on regular formative assessment, four summative assessments were conducted each year.

In the field

Almost all the teachers interviewed showed a good theoretical understanding of CCE and spoke of its value and superiority over traditional teaching-learning-assessment processes. One message that seems to have reached teachers effectively was that some multilevel teaching is necessary for students at different levels. This was also the pattern for the 'reading campaign' implemented in 2014, where a baseline assessment divided students in to three levels. However, in the classroom, most teachers observed were not really teaching students in groups but teaching the whole class for the entire period. Some group-based teaching could be seen in multigrade classrooms for

different grades sitting together. Several teachers pointed out that CCE records were the most important part of the scheme.

3.5.3 Assessment and recording

Model for assessment (and teaching)

The year's syllabus is divided in to four terms of about 2-2.5 months each. A list of term-wise learning objectives and corresponding textbook lesson numbers are stated at the beginning of the teacher's diary. CCE implementation in any academic year begins with a 'placement test', which helps the school to correctly place the child according to her learning level in the core academic subjects. The other alternative is placement in two sub-groups based on the fourth summative assessment of the previous grade. Differentiated lesson plans are to be made for each subject and topic by teachers for each sub-group.

Teachers are required to prepare fortnightly lesson plans stating learning objectives, teaching tasks and assessment strategy. The fortnightly plan includes the following:

- Teaching plan and assessment strategy for the entire class (including whole class teaching, group and individual work);

- Enrichment activities for sub-group 1 which is at the grade level; and

- Special learning objectives and activities for sub-group 2 which is below grade level.

The lesson plans are to be reviewed each week to reflect and record qualitative comments on students' participation, difficulties faced by them, experience and reflection on the teaching-learning process of the past week and changes made.

Formative assessment is seen as an integral part of the teaching-learning process and is not done separately. The strategies/methods of formative assessment are to be recorded in the fortnightly teaching plan. Methods for formative assessment include observation during regular teaching, project work, homework, participation in school activities, portfolio (collection of students' work), etc. Students' learning achievements

are recorded each month against a set of identified indicators organized under sub-domains (like number knowledge, mathematical operations, fractions, etc.) fixed for each term. For each indicator, a student needs to be graded twice (for two successive months). The grades A, B and C stand for: A - can do independently or at expected level; B - can do with some help from the teacher or at an average (medium) level; and C - needs special support from the teacher or at beginner's level. The indicators of one term are repeated in the second term to help provide scope for flexible work based on need. A separate monthly record is also maintained for students who are at one or two grade levels below the grade they are studying in. Grades are allocated to them against the basic indicators of lower grades already identified.

The teacher's planning diary, therefore, serves as a comprehensive tool for fortnightly planning of lessons for the whole class and specific activities for the two learning level sub-groups. It includes weekly reflection including identification of students who need extra support, a monthly record of formative assessments for identified learning indicators for all students, and a separate record for those students who need to be tracked for basic skills in previous grades.

Summative assessments are done four times a year for all subjects. These are written or oral tests designed by the teachers locally. Some guidelines for the nature of test items to be included in summative assessments are included in source books for teachers. Grades for each summative assessment are decided on an overall assessment of performance of the student on the summative test and all other sources like classwork, homework, previous formative assessments and portfolios. Though a set of indicators have been included in recording for summative assessment, which are derived from indicators for ongoing formative assessment, these are not very clear, making the assignment of grades for an summative assessment quite complex

and arbitrary. Apart from the complexity of assigning grades for the summative assessment, the process and basis for recording performance under a set of indicators (selected from among the key indicators used for formative assessment) at the end of the term is also unclear. These items are not the same as those included in the formative assessment checklist, and therefore, there is no clear basis for assigning grades against these subject-wise indicators.

At the end of each term, each student is slotted to be either at the grade level or one or more levels below the grade. For example, a student in Grade V can be marked as being either at Grade V, Grade IV, Grade III or Grade II levels, after the written or oral test for the term end summative assessment. Each student who is slotted at her grade level (e.g., Grade V student at Grade V level) is further allocated grades (A, B, C) at the end of the term. Students slotted at lower grade levels are not given any grades. The number of students who are at different grade levels is reported to block and district levels and aggregated. Thus, the district and state are in a position to track the total number of students with different grades (A, B and C), school-wise. This feature is not part of CCE scheme as such but is the part of the state monitoring system to track class-wise learning outcomes of children. This is a web-based system of recording each student's grades on a term-wise basis and could also be used to track the performance of each school across the block and district. As pointed out later, this is not really appropriate use of CCE information since the data is not really comparable across schools. Also, the only use of CCE data is for teachers to take follow-up, corrective action at classroom and school levels. Use of CCE data for monitoring by block, district and state levels could lead to distortion and manipulation of data to suit expectations of higher levels.

The formative assessment and follow-up process suggested in the CCE framework is strong in its equity focus as the multilevel learning situation and design

of learning activities for students who are at a lower learning level is emphasized.

Co-scholastic skills and attributes

The Rajasthan CCE model does not provide for formative assessment for co-curricular skills like arts, sports, music, etc. For art education, summative evaluation is required twice a year with summative assessment-2 and summative assessment-4. Under art education, indicators are included for the following domains: music, drawing and craft, drama and dance. Specific levels of interest or performance are to be recorded for each indicator twice a year. Also, qualitative comments are to be recorded at the end of the year in the annual report card.

Personal qualities and interests are also expected to be assessed twice a year. These include: cooperation, self-confidence, initiative, punctuality, etc. Similarly, health and physical education including – cleanliness, nutrition, exercise and sports (interest and participation) – are assessed twice a year and qualitative comments are to be written at the time of summative assessment-2 and summative assessment-4.

The framework also includes a few 'co-scholastic' skills, mostly from the cognitive domain under each subject. These are called 'higher order skills'. For example, under Hindi--critical thinking and communication, creative writing and reading, and awareness of the world around are included. For mathematics, mathematical logic, ability to communicate mathematical understanding, and interest and motivation towards mathematics are included. Grades are assigned for various indicators included against these skills and attributes once in two terms, viz. twice a year. Thus, the framework supports development and assessment of these co-scholastic skills as a part of the regular subject-based teaching-learning process.

Annual Report Card

This includes grades and qualitative comments for curricular, other curricular and co-scholastic areas for SA-2 and SA-4. This is to be shared with students and parents in meetings twice a year. The records in the student report card are drawn from the student CCE register where all entries are first made.

Table 10: Assessment and recording requirement in Rajasthan

Assessment framework

Area of assessment	Periodicity/year	Tools & techniques	Scoring
Curricular areas	▪ 4 terms per year ▪ formative assessment on an ongoing basis ▪ summative assessment four times a year at the end of each term	▪ Placement test to assess students' level at beginning of year which helps divide students into two sub-groups ▪ summative assessment through written tests, oral tests & activities ▪ formative assessment through regular assessment during class room process, project work, homework, assembly, etc. ▪ Final grade for each term based on summative assessment and formative assessment	▪ No marks given to student ▪ No cumulative grade; and only once each term
Art, health and physical education	Twice a year	Based on observation of participation and interest	Qualitative comments once a year
Socio-personal qualities	Twice a year with SA-2 and 4	Based on observation of participation and interest	Qualitative comments once a year

Recording requirement

Format	Description	Frequency of recording
Teacher lesson diary	▪ Fortnightly plan including objectives, activities, materials and assessment technique with weekly review.	Fortnightly plan, weekly reviews; students formative assessment record as and when needed
Students' CCE register	Tracks progress of each student for curricular areas, co-curricular areas and socio-personal qualities for each term.	4 times a year (after completion of each summative assessment)
Students' portfolio	▪ Record of each student to show learning flow as well as learning evidence. ▪ Creative work, baseline/placement tool, paper pencil test and other remarkable achievements are maintained in students' portfolio. ▪ To share subject wise, learning area wise learning evidence with parents.	▪ Regularly , as needed ▪ Sharing with parents twice in a year (after completion of summative assessment-2 and summative assessment-4)
Progress report card	▪ Record of grades in curricular, other curricular areas and SPQs. ▪ Contains parents feedback (to be filled in summative assessment-2, summative assessment-4). ▪ Subject wise, learning area wise, for giving to parents as learning evidence.	Twice a year (after completion of summative assessment-2 and summative assessment-4)

Assessment process in the field

The research team observed instances of formative evaluation during the classroom teaching-learning process. While evaluating students through formative assessment, teachers were seen to ask traditional questions focusing on rote memorizations and not reflective or open-ended questions. Most of the questions asked were of the information seeking and one-word response type. None of the teachers asked reflective questions as part of this process. None of the students asked questions during the classroom teaching-learning process. No assessment of co-scholastic subjects was observed, but the research team was shown spaces and activities that had been created to assess co-scholastic aspects.

Teachers make the summative evaluation question papers themselves, as opposed to the old system where papers were designed centrally at the district level. They had not received any orientation on the nature of summative assessment test items. The few papers that were reviewed included traditional textbook based recall type questions. Now, monthly meetings are helping teachers in this respect.

Co-curricular and other co-scholastic aspects have remained largely neglected as the focus has mainly been on the curricular subjects. The process of assessment for cognitive skills like creative thinking, mathematical inclination, communication skills, etc. was not clear to most teachers.

Record keeping and its nature

The CCE formats follow some of the formats already suggested in the Rajasthan Education Board.

Lesson plans had been made in teachers' notebooks, as the CCE formats had not yet reached the schools five months into the school year. Many lesson plans tended to be written mechanically and the reflection notes expected each week had often not been filled in. Also, strategies for the two sub-groups of different learning levels were not clear. In a few instances, the research team noticed that the teaching plan noted down in the diary was not followed.

The placement tool had been used for children who had just joined the school. But, there was lack of clarity of how differentiated instruction would be imparted to the two sub-groups. After each summative assessment, teachers are expected to classify students as belonging to different class-levels. But, they did not know what the CCE framework expected them to do with

students identified at one or more class-levels below the grade they were studying in. The teacher's diary requires listing of activities for the two different sub-groups (identified from the beginning of year baseline assessment) throughout the year.

Formative evaluation records were seen in most schools but the quality varied, with teachers who had been master trainers for CCE maintaining better records than others. In many schools, teachers had recorded the same grade in the subject-wise checklist of indicators for each student for both the months (e.g., C – C, B – B, etc.). The reason given by most teachers for these repeated recordings of grade was paucity of time. Most teachers could not articulate the basis for assigning the A, B, C grades for different learning indicators.

In most schools, the formative record meant for recording learning progress of students who are at lower class levels and still learning basic skills had not been filled in.

Portfolios of all children were seen to be maintained, but they contained a variety of items, not necessarily of relevance to assessment. Decorative artwork was the most common item found in the portfolios.

The formats prescribed under CCE have changed each year, causing confusion among teachers in the schools that have been implementing CCE for a few years.

3.5.4 Observed teaching-learning process, student learning and CCE

Teaching-learning process

There were wide variations in observed teaching-learning practices. Most teachers were primarily teaching the textbook in a traditional teacher-led manner; a few were found to be conscious of individual differences in learning levels and attempted to include differentiated activities according to the different levels. However, even such teachers who seemed aware of the need for differentiated activities did not have a good understanding of the strategies to be used for a multilevel classrooms. The same kind of variation was seen in the

dimension of students' engagement; use of TLM; bringing students' contexts in to the classroom, etc. The only teachers who seem to have imbibed the spirit of CCE were those who were themselves master trainers.

Several teachers were seen incorporating activities in lesson plans but not all of them were meaningful or learning centred. Teachers expressed that they were facing problems in making separate lesson plans for multilevel classroom and needed a lot of support to do that. Library books were available in all the schools, however, they were not being used in the teaching learning process.

It was difficult for teachers to organize group-based teaching in multigrade situations with inadequate teachers. While, getting teachers to teach specific subjects across grades (at the primary stage) certainly helps in organizing capacity building on subject pedagogy and assessments, it does impose a burden on each teacher to know and understand all the students in each of the five grades.

Use and purpose of record keeping

Teachers spoke of the pressure to maintain records, and how they did not find them of any use for classroom teaching. They saw records as something to be used for sharing with parents and to show government officials. Most teachers had also not read the CCE manuals in detail. While records like the teacher's diary have been designed with the objective of improving the teaching-learning process, they are not being maintained in that spirit.

The baseline (placement) tool which is useful in knowing the learning level of a student at the beginning of the year is found to be easy to develop and administer, and is being effectively used in schools. However, the follow-up is weak.

Teachers are grappling with the idea of fortnightly planning which is a necessary part of the CCE scheme as they are finding it difficult to make plans for students at different levels of learning. Portfolios contained rather random worksheets, test papers and drawings, and did not show a

flow of learning of the child. These are seen as something to show to the parents and officers. Teachers did not use records for planning teaching or for remedial teaching. They were maintained only as a requirement.

Equity focus and follow-up on assessments to improve learning of all students

The equity message of the CCE scheme has reached teachers successfully. However, it is not being implemented in most schools. Teachers were not able to give any instance where they used CCE records for follow up, to improve learning of weaker students, etc. They did say that they take special sessions with weaker students, but did not use the CCE records; they just went by their own familiarity with their students learning levels and their learning needs.

Many teachers and educational administrators blamed irregular attendance, a deprived home environment, and low parental value for education for low learning levels of some students.

3.5.5 Training and academic support Training

Training

Training has been conducted in a cascade manner with a team of master trainers selected from among primary school teachers. BSS was involved in the training of master trainers at state level, while DIETs were responsible for training at the block level. Training programmes typically consisted of a six day module (each year) involving both theoretical and practical aspects. Besides this, source books have been provided to all teachers. These are subject-wise, and for all classes.

Academic support and supervision

In the initial pilot, BSS appointed staff were responsible for providing regular academic support and on-site visits to help teachers understand CCE processes. In the scaled-up approach now, such support is not available. The CRC arrangement is not functional in Rajasthan. Based on a felt need for follow-up of the CCE training and strengthening teachers' understanding of

subject pedagogy, one-day meetings of subject teachers at the cluster level have been initiated. These meetings help to clarify many concepts and discuss lesson plans and activities for different topics. It is learnt that these meetings are proving to be very useful in districts like Dungarpur where the DIET has taken responsibility for the academic component. This has not been possible in all districts. However, it should be noted that this academic support provided to teachers has been very helpful in both understanding and implementing CCE in classrooms.

Review and feedback mechanism

Feedback was collected from the field during the development stage of the CCE scheme and this was incorporated into changes made in the scheme each year. In its current form, while supervisory staff do look at CCE records, there is no mechanism for incorporating feedback from the field into any process of review of the CCE scheme.

3.5.6 Systemic issues

Delay in provision of records: The training was conducted in June 2014, but the recording formats had not reached the schools until three months after the training, which has diluted the impact of the training. During the training it was discussed with teachers that if the material gets delayed, the training module given to them has the lesson plan and checklist formats so that they can maintain these records in their personal notebooks. However, most teachers have not done this.

Need for continuous support for lesson planning: This has been weak. Monthly cluster meetings are a good initiative to provide regular support to teachers. CCE documenting work has reduced the time for teaching.

Inadequate teachers; multi-grade situation: The multigrade situation is pervasive in Rajasthan. Though class sizes are generally small, it is not easy to implement CCE in its right spirit and maintain all records when there are only 2-3 teachers in a school. Some teachers reported that they had to spend considerable time for MDMs and other non-teaching

activities such as booth level officer (BLO) duty for election related work.

Subject-wise teachers: Though there is an administrative order that one teacher will teach one subject across different grades; in reality this is being only partially implemented due to practical constraints. Instead of teaching the same subject in all five grades, various other combinations of classes and subjects were seen and teachers are sometimes teaching subjects they are not well trained to teach or assess.

Inadequate budget for materials: Schools do not have an adequate budget for paper, crayons, other materials, and photocopying needed for implementing some aspects of the CCE scheme.

3.5.7 Conclusion

The state's CCE model is well conceived. The aspects of:

a. Doing away with marks;

b. Emphasis on differentiated lesson plans for two levels of students;

c. Identifying students who are below class-level; and

d. Emphasis on transforming the teaching-learning process (including assessment) are laudable. However, some aspects of the design, e.g., grading for summative assessments, development and assessment of co-scholastic attributes, extensive record keeping and inadequate guidance on addressing multilevel situations need to be addressed or strengthened.

Most teachers, in the schools visited, reported some change in their understanding of learning levels of students; and the need for better planning of lessons and giving some extra support to less advanced students. They are not practising these principles right now.

There are several practical constraints for teachers to implement CCE effectively in classrooms. These will need to be addressed.

- Need for continuous support to teachers to make differentiated lesson plans to address different learning levels of students through better training and onsite support.

- Non-availability of recording formats is a big problem, as most teachers tend to record CCE only if the formats are available and do not create their own formats.

- Teachers' understanding of the formative evaluation process and technique is rather superficial and they need much more support to incorporate this effectively in the teaching-learning process.

- Teachers feel burdened with the additional planning and record keeping; recording is mostly mechanical.

- Most importantly, teachers are not using CCE records except for sharing with parents and officers who visit the school.

- The actual classroom processes do not show the assimilation of the CCE vision by teachers – this could be due to a variety of reasons including not understanding the concept properly, not enough faith in the concept, or not enough training and support to implement it effectively.

- A strong undercurrent of doubt about the continuation of the CCE scheme in its current shape was palpable in most places. The context was pronouncements made at the political and administrative level about the need for public examinations and review of the no-detention policy.

Quotes from the field:

"Before CCE, children used to sit silently, but now they have become active. Before CCE was introduced, teachers were focused on toppers (children who had inclination towards learning) but now they focus on back benchers (irregular, slow learners)."

-BEO in Jaipur district

"CCE is like a blood diagnosis report. I easily get to know what the status of my children is."

-Teacher, Upper Primary school, Dungarpur district

"The consistent delay in CCE material is a major roadblock to the implementation of CCE"

- SSA official, Dungarpur district

3.6   UTTAR PRADESH

3.6.1 History, development and roll-out of CCE

History

The earlier system of assessment included two unit tests and two examinations, half-yearly and annual. These were all written tests. The CCE scheme was developed in 2011 and draws from NCF 2005, NCERT's Position Paper on Examination Reforms (2006) and the RTE Act. It was first initiated in 25 schools in five districts (Balrampur, Ghaziabad, Lalitpur, Raebareilly and Varanasi) of the state in 2011-12 and extended to all schools in these districts in 2012-13.

Integration with larger framework of quality improvement

The CCE framework is a standalone initiative that is not directly linked to the other dimensions of curriculum and textbook revision, other assessment (examination) reform or a vision for a transformed teaching-learning process. The State Project Office (SPO) of SSA and SCERT felt that the in service training, 'Samvaad' implemented during 2011-12 and 2012-13 helped teachers develop some understanding of a good teaching-learning environment and effective classroom processes and the CCE training could build on it.

Process of development

The CCE framework was developed by the State Project Office of SSA in collaboration with DIET faculty members, teachers of the first 25 pilot schools of five districts, experts from TSG, Ed.CIL and Care India during 2011-12. The state regards the significant role played by practising teachers of the pilot schools in designing the CCE model as a very important achievement.

Changes over the years have focused on simplifying and reducing the burden of recording of assessment data. The co-scholastic aspects were addressed more strongly in subsequent years. Indicators for different subjects have been modified and merged to reduce the total number. During the first two years, there was regular review of feedback from the 25 pilot schools. The responsibility of implementing CCE has now shifted to the SCERT. After the transfer of the scheme to SCERT, the follow-up has been weaker and less frequent.

Roll-out plan
The roll-out of CCE happened in three phases.

- Phase I (2011-12):

  Development of CCE strategy and handbook and trials for five months in 25 primary and upper primary schools in five selected districts.

- Phase II (2012-13 and 2013-14):

  A five day training was organized for all the teachers of the five districts during 2013-14. This was implemented through a two-step cascade, viz. block level resource persons were trained at the state level and they imparted training to teachers.

  The materials developed for CCE were: (a) manual for teachers; (b) training module for master trainers; and (c) different formats for recording.

3.6.2 Theoretical underpinning and its understanding in the field

The CCE manual and training materials clearly state that evaluation is an integral part of the teaching-learning process, and not a separate activity that requires extra time and effort. This is illustrated by an example of how a skilled mason constantly keeps checking the quality and correctness of construction. CCE is a regular and developmental process of assessment.

Continuous evaluation, as per the state's CCE framework, means that the teacher's work should be continuously guided by the child's response and participation in classroom activities. Thus, evaluation should be seen as a process whereby the teacher learns

about strength and weakness of the child in order to be able to teach better. It is a means to ensure that all children learn. The teacher understands what students have learnt from an earlier teaching-learning process and how this process could be adjusted in the future. Under CCE, the objective should be to compare a child's progress/growth against earlier progress (since all children are different). Comprehensive implies that assessment covers not just the academic dimension, but also child's values, social, physical and emotional development. All round development of child is important and not just academic competencies defined in the curriculum.

The manual encourages a variety of child-centred strategies to be used for assessment since different children learn in different ways. Along with performance and progress, aspects like motivation, capability, interest, etc. should also be understood. There are no marks or grades to be allocated for any assessment. The framework emphasizes use of a variety of assessment methods inside and outside the classroom.

The manual provides a very flexible approach by listing 'suggested' learning indicators for different curricular subjects and learning objectives. The expectation is that teachers would choose indicators appropriate for their situation and work with individual students or groups of students in a class on learning objectives that may apply to a specific student or groups of students.

The framework focuses only on assessment practices and does not provide guidance for feedback to students or taking follow-up action based on the assessment activities to help improve student learning for the class as a whole or specific students. Nor is there any emphasis or practical guidance on the use of formative assessment to guide and adjust the teaching-learning process on a day-to-day basis. Thus, assessment seems to be an end in itself and the process ends with entry of qualitative statements against different indicators.

Overall, the description of CCE is highly idealistic and the framework does not provide many pragmatic suggestions for implementing this framework in real classroom situations.

In the field

The understanding of CCE is very varied across schools. Some teachers articulated that CCE requires them to give specific attention to children whose learning levels are low. Several teachers said that CCE helps evaluate children's progress on a regular basis and in supporting children's all round development. But with further probing during the interview, only few of them could explain how continuous assessment is implemented in the classroom. They could not demonstrate a strong understanding of development and evaluation of co-scholastic aspects. The 'growth' or progress orientation of the CCE framework was not understood in the field. While the CCE scheme mandates planned teaching according to learning objectives selected from the curriculum and development of learning indicators, teachers focus only on the textbook. Most teachers did not demonstrate a clear understanding of learning indicators. Most importantly, assessment is seen as an end in itself and not linked to providing feedback to students and remedial activities for addressing the learning gaps.

3.6.3 Assessment and recording

Learning indicators

Learning indicators have been developed in language, mathematics, science, social studies, work experience, art and music and physical education based on the curricular objectives. The manual suggests indicators should reflect the learning process (e.g., child's engagement with classroom activities) rather than just be used for measuring outcomes. Thus, they are stated in the form of the 'learning process' – children are talking about pictures, children are writing numbers in descending and ascending order, etc. The indicators listed in the manual are suggestive in nature. Teachers can modify

them according to local needs. The focus is entirely on recording qualitative comments against these indicators (like 'recognizes different parts of the body, identifies different states in a map, participates in different group activities, but doesn't speak much'). The indicators are linked to curricular objectives, but not to specific lessons of the textbook.

Model for assessment

The manual provides exemplars of a large number of child-centred assessment activities for several indicators across subjects and grades. A major part of the manual and training module is devoted to discussion on learning indicators and child-friendly assessment activities. These exemplar activities are not linked to the textbook lessons.

The CCE manual also offers suggestions for formative assessment during the course of teaching including: asking questions; listening to children; observing children reading; doing individual writing work; observing children working in groups; observing project/experiment work;

observing children's participation in cultural, sports and other school activities; and oral or written assessment on completion of a lesson/topic/concept. Class tests do not find a mention in the CCE manual. No marks or grades are allocated for any assessment. Only qualitative comments are to be made on a regular basis against indicators selected by each teacher.

There is no suggestion in the CCE framework about summative assessments. Since the framework is silent about summative assessments, half-yearly and annual examinations continue as before.

Co-scholastic assessment

The focus is mainly on participation and behaviour in activities like morning assembly, MDM, sports, music and cultural activities, use of library, etc. Also included are personal attributes like cleanliness and ability to solve problems. The methods of assessment suggested include observation, discussion with other teachers, parents and other students.

Table 11: Assessment and recording requirement Uttar Pradesh

S.No	Name of record	Description	Frequency
1.	Teacher's diary	A record of planned T-L activities including TLM and assessment for each learning objective/lesson. Also, reflection about the process and student learning after the class.	For each topic (each day/as needed)
2.	Student cumulative sheet		
2.1	Learning achievement (cognitive)	Student-wise record of: (a) learning objectives for the term for each subject; (b) list of indicators achieved by the student; and (c) areas of improvement. Indicators to be selected separately for each child.	Each day, or as needed.
2.2	Progress in co-scholastic domains	Qualitative descriptions of attendance, participation in morning assembly, MDM, cleanliness, participation in sports and cultural activities, etc.	As needed
3	Student progress card	Qualitative description of progress against selected learning indicators for each child for each term including some co-scholastic aspects.	At the end of each term/thrice a year
4	Collection of child's remarkable/creative work samples	Poems, art work or any other creative work of the child.	As needed

For the subject-wise record of learning achievements, teachers are expected to select and record learning objectives/areas (for individual children) based on the work done with each child during a term. Against each of these learning objectives, the teacher has to record the indicator that has been achieved by the particular child through a qualitative description. The qualitative comments are supposed to be written in a 'positive' manner showing 'learning progress'. Some illustrative comments provided in the manual are found below.

Scholastic: Adding two numbers with carryover; recognizing different parts of the body,

Co-scholastic: Bathes and wears clean clothes every day; takes part in different groups, but does not speak much.

In addition, the areas for improvement need to be recorded at the end of the term. Teachers need to prepare another set of subject-wise qualitative statements for each child in the student report card to indicate what the child has achieved or is doing at present. The recording of 'positively worded' statements to reflect learning progress does not translate in to encouraging students in the classroom and having high expectations of learning from them. It was quite common to see neglect and implicit discrimination against some students even though the teacher had recorded positive qualitative statements about the students.

Assessment process in the field

Teachers seem to focus on asking questions and looking at/correcting children's work as the two main techniques for formative assessment. During interviews many of them mentioned observation, group work and project work. However, these were not seen in practice. Also, the questions that teachers asked children were almost always the type that required a yes/no or one word answer. Some examples of questions are: "Who knows all the alphabets? What is this alphabet?" Replies are usually in a choral response.

The team did not find any of the participatory assessment activities (or activities of that nature) suggested in the CCE manual being used in the classroom. The CCE scheme and practice does not emphasize routine class tests or evaluation worksheets to assess learning of specific skills or competencies. Only one of the teachers interviewed mentioned using regular class tests as a part of the CCE approach.

The half-yearly and annual examinations continue as before. The examination question papers still focus on memorization and recall of textbook information. The general understanding is that all students should get 'pass' marks and therefore, scoring in these two examinations is done in a lenient manner. The marks in these examinations do not really reflect the real learning levels of the students. The two systems of evaluation, viz. CCE and the two examinations are not linked to each other. Most of the teachers felt that there is a value in the conventional system of examinations which they feel should continue along with CCE. They justified this on the grounds that parents would like to see marks in the report cards like in private schools. Also, that examinations or tests create an element of seriousness about studies. With no detention and a 'fear-free' environment, there is no pressure on children or parents.

Co-scholastic aspects

The CCE manual does not include enough strategies and practical examples for assessing co-scholastic aspects. It is silent on ways in which such competencies or behaviours can be encouraged or developed. In the field, from the interviews and FGDs and a summary review of school functioning, there did not seem to be much emphasis on co-scholastic aspects. Most of the teachers did not mention assessment of co-scholastic areas when asked about different types of assessments practiced by them. Those who mentioned it in the interviews were not clear about how these aspects can be assessed. The recording of assessment in co-scholastic areas was being done in very

mechanical nature with the same/similar kinds of comments in all the profiles. All teachers agreed that a lot more needs to be done for providing opportunities for students to develop co-scholastic skills and attributes.

Record keeping and its nature

Teacher's diary: Lesson plans were written in a routine manner without any reflection of how the experience of actual teaching of the lesson was, and what modifications were made to the original plan. Vague comments (sabhi bachhe dhyan poorvak sun rahe hain, kuch bachchon ko adhik sahyog ki avashyakta hai) are common but do not add any value to the teachers' planning for future classes. The 'remarks' column is not used to write anything about the actual class that was conducted or names of students who need extra support. No separate space is available (or used) for changing the planning of next class that has already been recorded in advance though the change can be recorded in the 'remark' (Shikshak ki Tippani) section of the teacher's diary.

Students' learning progress in cumulative sheet

Recording of student-wise learning progress is done mechanically. It is similar for many children who have very different learning levels. Most cumulative sheets were incomplete. Almost no records are being maintained for the current academic year since July 2014. The reason given was that teachers were waiting for printed formats and instructions about starting CCE for the new academic year. The student-wise records for the previous year show that, usually, just one indicator is recorded for each subject for a term. This indicator is chosen arbitrarily. The recording is done (usually) at the end of the semester, and not on a regular basis. Thus, the learning achievement record does not provide any idea to a teacher (or a visitor or a parent) about the progress of a child for any subject – what a student has learnt, is in the process of learning or not learnt at all. In one district, we learned that teachers were reluctant to

record students' progress on indicators on a regular basis because that would make them accountable for the learning of each child. If during a supervisory visit, a child could not perform at the level indicated in the child-wise record, the teacher could be blamed.

Observation and recording of co-scholastic behaviour and activities is not strong or regular

These are mostly being done at the end of the semester. Recording on co-scholastic areas was seen, but seemed mechanical and not really based on extended observation. Comments recorded under co-scholastic areas were general and repetitive.

The qualitative nature of the records to be maintained for each child for each subject in the child cumulative sheet would be quite a burden for teachers, if maintained as suggested. For each child, relevant indicators need to be identified and listed and the progress recorded in a qualitative, sentence form. Teachers openly complained about this burden. There was little conviction among teachers about the CCE system being a good substitute for examinations.

Also, there was confusion about the new formats which were not available in most schools.

Student progress card

Student progress or report cards as given in the CCE manual had not been prepared and shared with parents for any of the years in any school. While CCE report cards have not been maintained, in some schools, the marks of the half-yearly and annual examinations were shared with parents in a separate report card. The reason given by teachers for doing this was that this was a demand from parents. Such a practice of reporting progress only on the basis of the performance in an annual examination undermines the CCE model.

There is a lot of duplication of recording work of a qualitative nature for teachers between the child cumulative sheet and the student report cards.

3.6.4 Observed teaching-learning process, student learning and CCE

Teaching-learning process

Teaching practices in most schools are not conducive to effective implementation of CCE. CCE can only work as an integral part of a student-centred and an equity oriented teaching-learning process; and this basic enabling condition is not available in a significant proportion of schools. For example, language teaching is often focused on the content/information included in the lesson rather than on the real objective of developing skills like fluency, comprehension and a new vocabulary. In all classes that were observed, except two, there was little scope for children's active participation in the classroom process. Teachers were found speaking for most of the class time. Choral repetition and copying were the most common activities for students in the language class. Sometimes, students were called one-by-one to read words or solve a math problem on the blackboard. During this time, the other students remained disengaged from any learning activity, or were off-task. No group work was observed in any of the classrooms. Most teachers were not conversant with effective multigrade teaching practices. As a result, students in unattended classes had very low time-on-task or were engaged in copying or choral repetition tasks.

Teachers checked note books of students in a random manner. In most cases, no signature or date was put by the teacher while checking the written work. Apart from one, none of the teachers observed, provided feedback to the students after correcting their classwork. All teachers were 'teaching the textbook' and not planning based on the identified curricular objectives as suggested in the CCE manual.

CCE has not been able to influence classroom T-L process strongly. Teachers seem to continue to teach in the manner they have been doing. Two teachers who seem to follow some student-centred practices explained that they were not influenced by the CCE approach. The CCE and Samvaad trainings have helped convey the message of creating a fear-free classroom environment and a focus on learning for all children. But, teachers need a much better understanding of student and learning centred teaching practices and subject-wise teaching methods and activities. The CCE manual itself includes elaborate student centred activities for regular assessment for different learning objectives. However, there are no suggestions about the classroom teaching-learning process itself.

Use and purpose of record keeping

It was clear that teachers did not consider using any of the CCE records for guiding their teaching or helping improve student learning. Apart from the fact that the recording was mostly incomplete, there was no clarity on how these records were useful for teachers. Clearly, recording is done only because it is a requirement of the CCE design and may be checked by a supervisor. Teachers do not see it as useful for themselves.

The teacher's diary does not add any value to planning for future classes. The planning for a lesson is written mechanically and does not include practical strategies for dealing with multilevel situations in classrooms, and activities to address children who are falling behind. Classroom observations and teacher interviews revealed that teaching was not at all guided by the plan entered in the teacher's diary in any of the classes observed.

The qualitative entries against curricular and co-curricular areas are vague and sketchy (e.g., about any one indicator for the entire term) and cannot provide guidance for follow-up action.

Equity focus and follow-up on assessments to improve learning of all students

In all classrooms that were observed, teachers knew who the 'weaker' students were. This was a general understanding and this did not include a nuanced, objective understanding of what different students in the class knew, or did not know, based

on regular assessment. Except in two classrooms, this did not translate in to any extra attention or time to these 'weaker' students. During the interviews, teachers expressed their inability to provide extra support for these students as the syllabus had to be completed. Three or four teachers were seen providing some differentiated writing tasks at the end of the class based on the learning levels. All such tasks were of the copying or handwriting practice type. Neither the CCE manual nor the training has focused on the use of a variety of methods and activities to support student learning, especially for those students who lag behind. Remedial work, if any, is confined to re-teaching and repetitive drills. Some teachers asked: "For how long or how many times should we repeat for students who are irregular or are not able to learn a skill or concept?"

Neither the CCE handbook and training or any other training programme has prepared teachers for dealing with the multilevel situations in classrooms. This is the biggest challenge in almost all classrooms. The common refrain in almost all schools was about the inability to address needs of students who were very irregular in attending schools and CWSN. Most teachers blamed the children and their parents for their low learning levels – no support at home, not attending regularly, do not have notebooks, etc. Almost no teacher seemed to believe that 'all students can and should learn'. Some teachers seem to be biased about the ability of students from a poor socioeconomic background (kitnibaarbhisamjhao, ye log samajhatenahinhain). This is quite contrary to the spirit of CCE where every child has to be supported to achieve important learning indicators and be ready to move to the next grade.

3.6.5 Training and academic support

Training

Teachers of the five pilot districts were provided in-service training on CCE for three and five days during 2012-13 and 2013-14, respectively. The cascade had been limited to two levels. Block level RPs were directly trained at the state level and they provided training to the teachers. During 2013-14, training of teachers at the block level was quite delayed in some districts reducing the effectiveness of implementation. When CCE is implemented state-wide, the cascade would be at four levels and the chances of higher transmission loss may increase. The training programme focused on the following:

a) Building conceptual understanding of CCE (20 per cent of the time);

b) Building capacity of teachers on identifying indicators and assessment activities (60 per cent of the time); and

c) Record keeping (20 per cent of the time).

The CCE manual is written in a difficult, not-easy-to-read style. Most teachers received the manual several months after the training programme and start of the school session.

Most teachers felt that the training at the block level was not of high quality and did not address many of their practical issues. Almost all teachers failed to recollect the content of the CCE training programme attended by them. Some said they had referred to the CCE handbook initially (after the training), but not in the recent past.

Academic support and supervision

District Institutes of Education and Training, Assistant Block Resource Coordinators and Naya Panchayat Resource Centre Coordinators (NPRCs) are expected to be involved in the process of follow-up through school visits. However, all teachers who were interviewed expressed the opinion that they received no academic guidance from the ABRCs and NPRCs. The ABRCs and NPRCs felt they were too bogged down by administrative tasks and could not visit schools regularly to support teachers. Teachers do not attend any other academic meetings where CCE related issues are discussed. ABRCs and NPRCs help in preparation of the two examinations' question papers. While some DIET faculty visit schools, these visits are

not planned systematically. DIETs do not have adequate funds to undertake regular visits to schools. Right now, only a few roadside schools get visited. Even during these limited visits, DIET faculty have not provided any specific inputs on teaching-learning process or CCE, as evidenced from visit notes and teacher interviews.

Overall, apart from the district level RPs, other academic support staff did not display a strong understanding of CCE concepts. They neither have the ability nor the willingness to support teachers through practical examples and demonstrations of good assessment practices in classrooms. The visit notes of ABRCs and NPRCs are of a very general nature with no specific comments or suggestions for improving CCE implementation. The BSAs and BEEOs had an even more limited understanding of CCE. In fact, educational administrators sounded sceptical about the usefulness of the CCE system and seemed to find more value in the system of term tests and examinations.

Review and feedback mechanism

In the absence of a strong academic monitoring and support arrangement at the district level, there are no regular reviews. Feedback, if any, is collected in a routine manner. Neither the BSA nor DIET nor SCERT had a clear idea about the status of implementation of the CCE scheme even at the pilot stage in five districts.

3.6.6 Systemic issues

- The following systemic issues further limit the effective implementation of CCE:

- A large proportion of schools in Uttar Pradesh do not have adequate teachers. In districts like Behrampur, a majority of schools have only one or two teachers;

- The academic support mechanism of DIET-BRC-CRC is not really in a position to provide any support to teachers; and

- The administrative arrangements for conducting training, print and distribute formats are not geared to effective and timely implementation.

3.6.7 Conclusion

The implementation in five districts for two years has not been very successful. There is not enough conviction among teachers, head teachers, ABRCs, BEEOs and BSAs and NPRCs about the importance of CCE. It appears that almost all teachers are going through the motions of maintaining CCE records without implementing CCE in its right spirit.

The scheme has been conceived in a very idealistic manner and there is not enough practical guidance for implementation of the concepts suggested in the manual. The assessment and recording system suggested in the framework does not provide a clear understanding of the learning progress of individual students on specific learning indicators at any point in time. The guidance for recording of qualitative statements against indicators to be selected by the teachers for each student makes the scheme impractical. The assessment records are not directly useful to teachers to monitor and support student learning or adjust teaching on that basis. The CCE scheme does not lay emphasis on follow-up from assessment to provide feedback to students and provide support for learning as needed. Teachers are also not willing to clearly record progress or achievement of individual students against specific learning indicators as that could create accountability for student learning. The CCE scheme does not adequately stress the need for appropriate teaching-learning processes and methods for different curricular subjects. Merely pursuing an assessment agenda when the classroom processes are teacher-centred and oriented to rote memorization will not be useful. Unless, improved teaching practices (that include regular assessment) become the core of a quality improvement agenda, the current CCE approach will not be successful. This will require a comprehensive teacher professional development strategy that goes beyond an annual round of in-service training.

Even at the pilot stage, training and academic support arrangements have been weak. With little regular support and reinforcement of CCE practices, teachers do not feel the importance or pressure to change teaching-learning and assessment practices. Once CCE is extended to the entire state, with lowering of training and academic support quality, the results are likely to be even less encouraging.

Quotes from the field:

"For the first time, I have come to know how we should work with children with inviting their active participation. We have never been told so by any officer or in any training. Till now, I was working hard towards the environment of school and learning level of students as per my own understanding. I promise you that when you come after few months, you will find changes in teaching-learning process as well."

–Head Master of a Primary School in Lalitpur district

"Yes, I need extra support from the ABRCs and NPRC. They visit very rarely. Last time the NPRC coordinator visited in July, but there was no discussion on CCE"

Primary school teacher, Lalitpur district

Chaper 4	MAJOR FINDINGS AND CONCLUSIONS

4.1 Introduction

As explained earlier, this was an in-depth, qualitative review of CCE conceptualization and design, explored perceptions about the scheme at various levels from state to school level and analysed possible reasons for the situation of CCE implementation observed in schools and classrooms. No attempt has been made to generalize the findings based on the small, purposively and conveniently selected sample. Therefore, the analysis does not present any percentages or numbers of schools or teachers. Such a quantitative presentation would have given an erroneous impression and drawn attention to numbers and percentages that have no significance, detracting from

the qualitative nature of the in-depth analysis for each school and classroom that is the strength of this review. Words like 'most', 'many, 'few' have been used to convey a general sense of how pervasive or specific the observed situation was within the sample selected for the review.

The overall findings and conclusions presented in this chapter draw from the state-wise analysis of CCE designs and implementation process presented in Chapter 3. The conclusions are presented as national level findings for these six states rather than state-wise; where applicable, state examples have been included. The idea is to provide a set of conclusions that would cover a variety of state situations.

It is true that CCE implementation is fairly recent; between one and four years old. Any new initiative that aims at significantly changing the teaching-learning process will take time to get internalized at all levels. Some would say that we should not be impatient and get disillusioned with the way the scheme is being implemented at

such an early stage. Others would argue that criticism of the scheme at this stage would provide ammunition to those who are opposed to CCE and are waiting to bring back the primacy of examinations and re-introduce detention. We feel this is the right stage for reflection about CCE frameworks and implementation to make course corrections as early as possible.

4.2   Overview

4.2.1 Positive aspects

At the state level, in all the states, there is considerable seriousness about making CCE work. The CCE frameworks, teachers' guides and training modules reflect an idealistic and aspirational approach to assessment and teaching-learning. States like Gujarat, Maharashtra and Rajasthan have converged quality improvement initiatives like curriculum and textbook revision, in-service teacher training and CCE to provide a comprehensive approach. Teachers in Maharashtra, therefore,

displayed a good understanding of use of activities in the teaching-learning process.

Some of the CCE designs, e.g., Maharashtra and Rajasthan are fairly comprehensive, including detailed lesson planning and recording in a teacher's diary, student-wise qualitative statements of progress and/or grades in formative and summative assessments, student progress report cards, student portfolios, etc. Detailed manuals including concepts of CCE, subject-wise learning indicators, assessment methods and recording formats have been developed.

Assessment of co-scholastic aspects of students' development has, for the first time, found an important place in the framework for school based assessment. While, this is just a beginning, it could provide a foundation for a greater focus on opportunities for nurturing and development of these domains as a part of the regular school responsibility.

The school level understanding of CCE is quite varied. However, in a significant proportion of schools, teachers:

a. Have developed some awareness about the different learning levels in classrooms and the need to support weaker students;

b. Are trying out some strategies for remedial teaching, though these are not necessarily linked to CCE;

c. Are using some assessment methods like oral tests, project work, etc. beyond the traditional paper-pencil tests; and

d. Have developed some awareness that co-scholastic aspects need to be looked at as a part of overall student development. Many teachers and others who visit schools regularly reported that after implementation of CCE and the no-detention policy the classroom environment has become less stressful and threatening for the students.

Teachers who were master trainers or members of state or district resource groups on CCE have internalized the spirit and essential processes of CCE much better than other teachers who received training in the last leg of the cascade. In Rajasthan,

schools in the initial pilot received strong on-site academic support, had a much better understanding of formative assessments and the need for some differentiated instruction.

4.2.2 Issues and concerns

While the CCE frameworks appear to be sound in their conceptual underpinning of continuous and comprehensive assessments, they deviate from the conceptual approach while detailing assessment and recording techniques as the prime focus of CCE, and undermining the crucial aspects of reflecting on the teaching-learning process, understanding student learning and gaps and follow-up action for improving learning.

Overall, the CCE scheme is being implemented in a 'procedural' and 'formulaic' manner with a focus on the conduct of periodic assessments with marks and grades and extensive record keeping. The real purpose of continuous assessment,

viz. feedback to students, corrective action for improving learning, and adjusting the teaching process based on the findings from assessment, is not the focus of the CCE designs and school level implementation. At the district level and below, the education system seems to be going through the motions to implement a scheme mandated by an Act, because it has to be done and NOT because it could help teachers create more learning focused and equity-oriented classroom processes that enhance student learning for ALL students. This is like a 'safe' process being played out by the education system where most functionaries want to be

seen as furthering the mandate of the RTE Act without internalizing the spirit of regular assessment to improve student learning and teaching-learning processes. Most teachers complained about the additional burden on account of detailed record keeping that encroached upon the time available for teaching. The scheme is very centralized in nature in all states (except Bihar) with a state-level prescription for techniques for formative assessment. The insistence on record keeping in a prescribed formats meant for 'checking' by supervisory persons militates against the spirit of a flexible and continuous classroom based assessment by a teacher focused on follow-up from the assessment.

The teaching-learning process continues to be teacher-centred and focused on rote memorization, choral repetition and the copying kind of repetitive drill-oriented activities. Focusing on assessment seems to be putting the cart before the horse. In an article titled, 'The CCE Conundrum', Sheshagiri asks a very pertinent question: "How will you measure or evaluate something when in the first place you are not doing most of what is required to make that happen? The route to reforming, changing or transforming classrooms, which should be the goal of all our effort, cannot be through assessment alone" (Sheshagiri, 2015).

There is very little system level conviction (below the state level) about the potential of the CCE scheme in improving student learning. In almost all states, some teachers and head masters, and most BRCs, BEOs and DEOs expressed faith in the usefulness of the examination system and even detention (grade repetition) for very irregular or poorly performing students. They did not see the CCE system as a strong substitute for examinations and detention following failure. Teachers argued that no-detention has caused lack of seriousness about the school among students and parents. Administrators talk about the importance of year-end examination because students' marks help monitor teacher performance. Also, with no-detention, teachers have no accountability, because all students get promoted anyway,

even if they do not learn. The CCE scheme is still very vulnerable to opposition and indifference from several quarters. In a few states, there seems to be a 'wait and watch' approach to see how strongly it is pursued and monitored in the future. In at least three states, schools had not 'implemented' CCE for several months during the academic year 2014-15 because they had not received the recording formats! In Bihar, there is an impression at the school level that CCE implementation was stopped after 2012-13.

A significant proportion of schools in the states visited do not have the basic enabling conditions for a good learning environment. Implementing a strong model of CCE in such conditions (multigrade teaching, large class size or inadequate instructional time) is not feasible.

The overall conclusion of the review is that serious course correction is needed in the manner in which CCE has been designed and implemented right now for it to have the desired impact. The findings of the review that substantiate these general observations are below.

a) CCE frameworks are idealistic and not tuned to real classroom situations

All state frameworks list very idealistic and highly aspirational objectives and dimensions of CCE. No doubt, these are desirable aspects of any good CCE intervention, but the concepts included in the frameworks seem too distant from the present classroom realities and capacity of teachers in the government school system. For example, all frameworks talk about the 'growth' model of assessment where the progress of each student should be tracked across the year and learning opportunities created for individual students based on their learning style and needs. The Bihar framework states: "children and teacher collaboratively decide how learning process should proceed", which is appropriate, but this seems like a distant dream given the present emphasis on discipline, hierarchy and teacher control of the classroom process. The Bihar CCE framework strongly argues

that CCE is an evaluation of the teaching-learning process, and not that of students. In the Uttar Pradesh framework, teachers are expected to identify learning objectives and indicators for each student (individually) and work with each student on these identified learning objectives. Some of these ideas seem quite disconnected from school level realities of multigrade teaching, diverse learning levels in the same classroom, irregular student attendance, inadequate teacher availability in a significant proportion of schools, teacher competence and preparation, availability of resource materials in classrooms, etc. By pitching the concept at such a high level, the frameworks appear too idealistic and the focus shifts to the more tangible and specific assessment tools and techniques and recording formats. There is also a serious disconnect between the conceptual statements in the framework and the later prescriptions of periodic formative and summative assessment techniques and recording formats. It could be argued that a framework needs to portray an ideal picture of what can and should happen. But, the risk is that the ideal being so unrealistic, can be ignored by the system. And, the frameworks do not provide any other 'more attainable' vision for the short and medium term. The only concrete aspects of the frameworks that, then, become centre-stage are the assessment techniques and recording formats. These are emphasized during training programmes and monitoring visits.

b) Too much packed in to the initial round of implementation

CCE implementation, in most states, included too many aspects in one go. Conceptual issues in formative assessment, assessment for co-scholastic aspects, learning indicators, tools and techniques for formative and summative assessments and formats for CCE records were all included in one manual and training programme. CCE implementation in Rajasthan, though well intentioned, is an example of a really ambitious initiative that aims at transforming teaching-learning process using CCE as the entry point. In addition to this ambitious agenda, the training programmes included training on a plethora of formats for recording, consolidating and reporting. The most tangible part of the CCE package is the set of formats for recording assessment findings. This is also the aspect that required very specific instructions during training and monitoring visits. Thus, the strongest and clearest messages around CCE have been linked to record keeping. This has resulted in the 'procedural' aspect of CCE undermining the more substantive aspects of formative assessments and diagnosis followed by corrective action. Most CCE frameworks do not provide adequate examples of formative assessment activities for each curricular domain or subject. For the upper primary stage, teachers need guidance on subject-specific activities for most parts of the curriculum. The nature of assessment activities would differ considerably between language, science, mathematics and social science.

c) CCE is not really 'continuous'

Formative assessment as 'assessment during the course of teaching' is not clearly understood. Several CCE schemes (e.g., Gujarat, Maharashtra and Odisha) prescribe formative assessment in the form of summative kind of assessments (written or oral tests or project work) once every 2-3 months with recording of performance through marks and grades. For example, in Odisha, the four 'formative' assessments are only a modified version of the four unit tests that were being held before CCE was introduced and are held as per a fixed schedule four times a year. These assessments are discrete events that do not provide the 'continuity' that is the essence of CCE. While these CCE frameworks also discuss strategies for regular formative assessment, the message gets lost in the processes and procedures and tools and techniques for the fixed number of assessments mandated for each term. In no school did research teams find that teachers had a good understanding of practices and

methods for continuous assessment. The most common method that teachers seem to use was: asking questions. However, almost all questions required only yes/no or one word answers. In most cases the questions were answered chorally by the students, which would not help the teacher in formative assessment of individual students. Even when individual students were asked to read from the textbook or come to the blackboard to solve a maths problem, the teacher, usually, asked only those students who could read or solve the problem. Thus, the less advanced students do not get enough opportunities to practice and get feedback. Other strategies like observing students' work, listening to individual students or group discussion, quizzes or spot tests, worksheets, project work were not seen at all or referred to by teachers during the interviews. Also, most CCE frameworks do not provide adequate guidance on domain-specific methods for formative assessment.

d) Weak or non-existent 'feedback' and 'response' aspects of learning assessments

A learning assessment system should not be confined to the conduct of assessment activities and collection of information about student learning only. The teacher has to: (a) analyse the evidence from the assessment and draw conclusions about each student's learning progress or performance; (b) provide feedback, in an appropriate manner, to the students about their progress or performance with suggestions for improvement; and (c) most importantly, provide appropriate and varied (often differentiated) learning opportunities for individual or groups of students to support their learning and bridge gaps brought out by the assessment. This 'formative' aspect of assessment helps to complete the loop of assessment-feedback-further learning and opportunities-learning-assessment. While some teachers were seen correcting students' classwork or homework, none were seen explaining the errors or providing feedback to students and suggesting how they should improve their performance. Without this crucial input, students cannot be expected to bridge learning gaps on their own. As Guskey (2008), points out carrying out formative assessment is only one part of the story. 'The Rest of the Story,' as he calls it, is about using these results to provide corrective, student-specific remedial measures (which he calls alternative pathways to learning success) to improve learning. This is the weakest part of almost all CCE designs; either completely neglected or mentioned theoretically. The teachers' manuals and training programmes have provided little guidance to teachers for using assessment for improving learning.

e) CCE designs promote a procedural and formulaic approach to assessment

CCE implementation is focused on the tools and techniques for evaluation and recording of student performance (mostly grades) in different formats. The focus seems to be on the 'form' (in this case, elaborate mechanisms of assessment and recording) rather than 'substance' (diagnosis, feedback and response based on assessment). In states like Gujarat and Maharashtra, weightages are assigned to the marks scored in formative and summative assessments to arrive at aggregate marks and grades for the term and the year. Student learning is, therefore, captured through this formula-based aggregation of scores from different tests for each term and the year instead of developing

a real understanding of levels of performance and learning gaps. It was sad to see many classrooms where many students were several levels below grade level expectations. However, CCE records were maintained and updated and the grades or remarks did not reflect the very poor learning levels. This 'procedural' understanding of CCE is also evidenced by the nature of reviews of CCE conducted in a few states. The focus of these reviews was almost entirely on checking if the assessment methods and CCE records are being implemented in the manner specified in the CCE handbooks and training programmes. Again, the focus was on the 'form' instead of the real spirit of CCE.

f) Teaching-learning process not conducive to CCE

In most schools, the teaching-learning process was teacher-centred with students remaining passive most of the time. Most of the students' time-on-task tended to be on mechanical activities of choral repetition and copying. In the language classes, teachers expected students to memorize passages from the textbook. This is despite years of in-service training programmes that have reportedly focused on activity based teaching-learning processes and appropriate subject pedagogy. CCE cannot work successfully if the teaching-learning process is not student-centred, equity-focused and learning-oriented. Merely trying to add a variety of assessment techniques will not help. CCE has to be rooted in the strong understanding and practice of good subject-specific pedagogy and a strong enabling environment for learning. Much greater focus is needed on a transformative vision for classroom process and teachers' professional development for actualizing the vision. formative assessment would be a part of the vision and practice of student-centred, and learning-focused teaching-learning process.

The most important factor that influences student learning is good teaching. At a conceptual level, several state CCE frameworks recognize the crucial link between CCE and improved teaching-

learning process. However, overall, the focus of the manuals and training programmes remains on assessment practices. The CCE model in Rajasthan places some emphasis on subject-wise pedagogy and planning of activities for different topics or lessons. The CCE training, however, is too brief to orient teachers on good classroom practices and subject-wise pedagogy. This is now being attempted in Rajasthan through monthly meetings of subject teachers. However, CCE frameworks and training programmes cannot bear the burden of bringing about the transformation needed in teaching-learning process. A serious analysis and dialogue with teachers is needed to understand why the years of in-service teacher training is not reflected in classroom practice.

An important guiding principle of a teaching process that is convergent with CCE should be that teachers (at least) pitch their teaching to the general level of the class. In almost all observed classrooms, teachers began by teaching the lesson scheduled for the day, not taking the time to understand what students knew or remembered of previously taught concepts that had a bearing on the learning objective for that class. Nor did they seem to make the effort to assess the readiness of the class for the topic taken up that day. Teachers are struggling with several other day-to-day challenges in improving the teaching-learning process. In most of the classrooms that were observed, teachers did not have a good understanding of principles and

strategies for multigrade teaching, increasing students' time-on-task, providing a mix of whole-class, group work and individual work, good teaching-learning activities for all parts of the curriculum, addressing issues of difference between the home and school language, irregular students, etc. Merely training teachers on concepts of CCE and record keeping will not help improve learning till these issues are addressed.

For example, in the case of multigrade teaching, over 70 per cent of schools, in the country, have a multigrade teaching situation. Between 25 and 40 per cent of primary schools have only one or two teachers for five grades. Teachers need to understand the strategies and considerable planning is needed for multigrade situations However, despite the pervasive nature of multigrade teaching situations, training programmes, typically, do not address this need.

Some of the problems with the teaching-learning process are associated with basic assumptions about what constitutes learning, the process of learning and students' abilities to learn. Is learning seen as constructing meaning or just display of procedural skills? Is there a very clear understanding of the fact that there will always be variability in learning outcomes of students in the same class or is there an expectation that most students should perform at expected grade levels? Is there a clear understanding of how progression in learning happens with time? Is there a strong belief and expectation that all students can and should learn? How important is emotional engagement and a positive classroom culture that encourages learning for helping students learn? These aspects have not been explored or discussed in training programmes in most states. In Maharashtra, 'construction of knowledge' has been stressed in recent training programmes, but the understanding needs to develop to a much deeper level before it can impact classroom processes.

Good teaching that promotes equity in the classroom is really rooted in teacher beliefs, attitudes and behaviour related to children

and their learning process, understanding of diversity and social inequalities, and their commitment to inclusive classroom pedagogy. Some of the teacher beliefs and principles that are crucial for inclusive and equitable classroom processes that support learning for all children are (NCF 2005):

- Valuing and respecting children's identities, experiences, cultures and languages and using these as resources within the classroom;

- Being aware of each child and the diverse learning styles of children;

- Linking new learning with children's experiences; and

- Having high expectations of all children irrespective of their background

These issues are rarely discussed during in-service teacher training programmes. Addressing these issues is a challenging task. Our teacher education system does not have the capacity or readiness to initiate a dialogue on these crucial aspects. A recent study commissioned by MHRD on inclusion and exclusion of children in schools and in classrooms has captured prevalent attitudes of teachers towards children from disadvantaged and marginalized social groups (Ramachandran et al, 2012).

Most teachers and academic staff at CRCs, BRCs and DIETs and educational administrators who were interviewed blamed parents and the non-supportive home environment for the poor learning outcomes of students. Neither current CCE trainings nor subject-based in-service teacher training programmes have addressed these issues centrally or effectively. Just implementing a CCE scheme that lays down assessment methods and formats for documentation of assessment findings cannot make a deep impact on these deep-seated beliefs and attitudes that lie at the heart of good teaching practice.

g) Marks, grades and qualitative comments do not provide clear evidence of student learning

In Gujarat, Maharashtra and Odisha a 'formative' assessment using prescribed

techniques is to be conducted once in each term for each technique. For example, in Maharashtra, seven techniques are prescribed for formative assessment in each term with 10 marks to be allocated for each technique. Similarly, marks are allocated for summative assessments (written or oral tests). These marks for formative and summative assessments are added each term to arrive at aggregate marks that are then converted to a grade. In Gujarat, the marks for co-scholastic assessments are also added to the marks scored for different subjects (formative, summative and self-learning) to arrive at a final grade at the end of the year. In Odisha, grades for formative and summative assessments are recorded in the progress report. The final summative assessment conducted at the end of the year is generally regarded as the 'final' grade secured by the student. None of the grades for formative or summative assessments provide a clear indication of what a student can or cannot do in terms of specific skills or competencies.

h) The assessment data in the form of marks or grades does not usually represent the real learning outcomes of students.

The 'no-detention policy' has been interpreted to mean that children should not be given 'fail' level grades or marks. This results in teachers inflating formative and summative assessment marks. In Odisha and Uttar Pradesh, setting of 'simple' question papers by teachers and lenient scoring for the half-yearly and annual examinations is the norm. Almost all students are given a 'passing' grade (C2- that corresponds to 41-59 per cent) in Maharashtra to remain aligned with the no-detention policy. This creates distortion and lack of objectivity in preparing assessment tools like tests and their scoring and a high degree of tolerance for a mismatch between CCE records and actual learning outcomes of students.

Teachers have not been encouraged to record real learning levels that may be quite low for a particular student even when s/he is moved to the next grade. This does

grave injustice to the child, as the teacher in the next grade gets no real information regarding her/his learning gaps and needs.

Qualitative statements (like the ones recorded in the 'warnanatmaknondi' in Maharashtra or in the 'Chhatrasanchayiprapatra' in Uttar Pradesh) are recorded mechanically and are quite similar for students who may actually have very different learning outcomes. Moreover, these are recorded for just one or two indicators randomly selected for one term where the teacher can write some positive comment. Often, these are not the key learning objectives for the term. Neither the teacher nor any external visitor can get a sense of an individual student's learning status by reading these qualitative records. Teachers perceive the requirement of student-wise recording of qualitative comments as burdensome.

i) Assessment records are not used by teachers

The most disturbing finding from the field was that across states and schools, CCE records are exclusively maintained for showing supervisors, and for reporting to parents, never for understanding students' learning progress, gaps and needs. Recording of assessment findings (qualitative or marks/grades) seems to be an end in itself. Teachers do not use the records for follow-up action to help improve student learning or plan for changes in the classroom teaching in future.

In a few schools in Odisha, teachers attempted to prepare a question-wise breakdown of individual student scores from a summative assessment test that gave them some idea of what the weak points of each student were. However, this was maintained mainly for the purpose of documentation and not used for any follow-up action in class.

The 'placement tool' in Rajasthan and the 'baseline assessment' in Odisha are examples of assessments that have been used to identify students' learning levels and gaps, but only once at the beginning of the academic year. In Rajasthan, some teachers were struggling to prepare and

implement differentiated lesson plans and adjusting them each fortnight for the two groups of students of different learning levels identified through the placement assessment. Most teachers were not doing this at all. In Odisha, weekly remedial teaching is imparted to students identified as 'weak' in the baseline assessment test under the 'Sahaj' programme.

Teachers, across the six states, clearly stated that CCE data on student assessment is not useful for them for any follow-up action for supporting 'weaker' students or modifying their pace or teaching activity. This 'non-use' of CCE data by teachers is on account of several reasons. First, CCE frameworks have focused, almost exclusively, on the conduct of assessments and recording of results, without emphasizing the use of evidence from assessment and follow-up action. In almost all schools, 'formative' assessment data is recorded once a term (after 2-3 months). At this stage, it loses any value for taking corrective action while the skill/concept was being taught.

In Gujarat and Rajasthan, teachers are expected to keep a more frequent record of students' progress/performance on key indicators. The learning indicator-wise record of learning progress for each student in Gujarat and Rajasthan is a more useful record that reflects ongoing progress of each student. In this record, the status of each student is indicated as A, B or C (Rajasthan) or as marked right with a tick mark, wrong with a cross or a question mark (Gujarat) against

the relevant indicator that is being taught at a point in time, reflecting the students: (a) ability to work independently; (b) need for support of the teacher; and (c) being at beginner's level, needing special attention of the teacher. This record has the potential of being used to identify and work with students struggling to master a particular skill or concept during the course of teaching. In practice, however, teachers were maintaining this record in a perfunctory manner and not using it for any follow-up action.

Second, analysis and response based on assessment data requires regular reflection by the teacher about children's responses to the different activities and strategizing about changes needed. This reflective attitude and way of working is completely missing in the entire education system and teachers' professional development. This is another reason for the CCE scheme remaining at the 'procedural' and documentation level.

Third, and most worrying, is that in most states, assessments and their records, both qualitative statements and grades in formative and summative tests, do not clearly reflect children's progress for specific skill areas or competencies. Instead of clearly indicating what children can or cannot do, the records provide overall grades or vague qualitative comments. This data is not actionable at all.

Fourth, CCE records are maintained primarily to meet the requirement mandated by the CCE scheme and for review by visiting supervisors. Even during supervisory visits, the objective is to only provide evidence that CCE is happening and not for a meaningful discussion between the teacher and supervisor about learning levels of individual children, areas of difficulty, etc. In Uttar Pradesh, the guidelines stipulate that a visitor should not ask to inspect CCE records unless s/he takes responsibility for supporting teachers in improving CCE practice. However, supervisory personnel routinely inspected CCE records without offering any concrete suggestions on strengthening CCE implementation.

On the whole, CCE records are not being used for follow-up action to help improve student learning or change teaching-learning activities or pace. This is a serious issue and brings in to question the very purpose of introducing the elaborate CCE framework.

j) CCE not promoting equitable learning: The challenge of multilevel classrooms

Most teachers knew which children were lagging behind in their class. This was a general understanding, not linked to assessment of specific skills or the CCE scheme. However, this could have been a good starting point for giving some extra attention or differential instruction to these students. But, few teachers were seen providing any extra attention to the less advanced students. In most classrooms, only those students who could read or solve a problem got a chance to read in the class or come up to the board to attempt a maths problem. During interviews, most teachers said they did not get time to work with the 'weaker' students. Those teachers who said they helped the less advanced students only used extra writing/copying work or repeating the earlier instruction a few more times as the strategies for supporting these students. There's enough research evidence to show that merely repeating an earlier process that did not result in learning will not help students who did not gain from it the first time. This is especially true when the activities are mostly of the mechanical drill type. Apart from issues of teacher beliefs and attitudes about equity and whether 'all children can and should learn', most teachers did not have an understanding of how they could support the struggling students during the course of teaching a lesson. CCE training and other training programmes had not provided teachers with enough practical guidance on strategies for working in a class with multiple levels of learning.

CCE schemes are, almost exclusively, focused on conduct of assessment and record keeping. Working in multilevel classrooms and supporting less advanced students is referred to in passing, as a desirable practice without offering concrete strategies to do so in real classroom situations. None of the teachers, in any of the states visited, had been exposed to the concept or strategies for 'tier teaching' in a multilevel context by using a variety of learning experiences and extensive scaffolding for struggling learners (and adequate challenges for the advanced learners). This understanding was not evident even at the state and district levels.

In some states like Odisha, there is a strong focus on remedial teaching once a week and at the beginning of the school year. This helps bring the focus on the learning of students who are lagging behind. The remedial teaching strategy is, however, not linked to CCE and not aimed at addressing needs of the less advanced students on an ongoing basis during regular teaching. The Rajasthan model does address the multilevel issue by prescribing differentiated

planning of activities for two sub-groups throughout the year through the fortnightly lesson planning exercise. This is definitely a good starting point for getting teachers to think of providing a variety of learning experiences appropriate to a multilevel situation. However, at present, teachers are not clear on how this can be done in practice. Also, teachers were not clear about how to address learning needs of students identified through the four summative tests and categorized as one or more grade levels below the grade they are studying in.

In none of the classrooms that were observed, teachers provided any learning experiences for children with learning disabilities. Some teachers seemed sympathetic and allowed such children to sit in the same classroom, but were not able to support them to learn. In all schools, teachers reported that the system of resource/special teachers for CWSN was not functioning effectively and the infrequent visits of these resource persons were not of much use. Obviously, the CCE scheme has not been able to include children with learning disabilities.

k) Examinations continue without integration in to a CCE framework:

In some states, CCE frameworks do not take a clear position on the continuation and the role of the summative assessments, like half-yearly and annual examinations. The Bihar and Uttar Pradesh CCE frameworks do not mention examinations or any kind of summative assessments at all. Half-yearly and annual examinations continue to be held in Uttar Pradesh. Summative tests are held twice a year in Gujarat, Odisha and Maharashtra. While in Uttar Pradesh, the official progress report card does not provide for reporting the marks or grades in the two examinations, many schools are reportedly under pressure from parents, and to compete with private schools. In Gujarat and Maharashtra, marks for formative and summative assessments are aggregated to arrive at a grade for each subject for each term. In Odisha, the grades for formative (once in two months) and summative (twice a year) assessments are shown separately.

As pointed out earlier, since these tests include questions from a variety of topics (e.g., syllabus of a term or 2-3 months), the scores or grades do not indicate what areas of learning a child has mastered and which ones need more effort. The grade is just a diffused indication of overall performance of the child which does not contribute to follow-up action. Also, the aggregated grade for the term based on

all formative and summative assessments has no meaningful interpretation.

l) There has been no reform in the nature of summative tests

Development of summative evaluation question papers by teachers is envisaged as part of CCE in all states, except Odisha. DIETs and CRCs have some role in a few states in preparing sample papers for summative assessments. This seems to be a double-edged sword. On one hand, it gives teachers freedom to prepare question papers suitable to current learning levels of their students. On the other hand, creating well balanced question papers that test knowledge, application, thinking abilities and so on is a highly technical area for which short training programmes do not adequately equip teachers. Going by the extensive observation of classroom questions by teachers and the scrutiny of some teacher-prepared question papers, we could see that teachers are far from acquiring this skill. Many tests that were reviewed by the research teams focused on recall of memorized information rather than testing of a skill or understanding of a concept. There were hardly any application-type of questions. Besides, many teachers also expressed the fear that 'other teachers' may be preparing question papers that are too easy, thereby showing high scores for their children and schools. This is not an unreasonable apprehension.

The Maharashtra framework outlines suggestions for teachers to prepare summative tests. The guidelines are fairly complex and include: (a) a mix of objective-type, short answer and descriptive answer questions; and (b) balancing questions that test knowledge, comprehension, application, and other higher levels of understanding, etc. Most teachers found it difficult to develop question papers that followed these guidelines.

As explained earlier, teachers seem to be linking no-detention with the marks or grades awarded to students in the examinations. Thus, they either include simple questions in the test papers

and/or mark leniently so that almost all students score the minimum passing grade (equivalent to 40 per cent marks).

CCE has not taken the next step in changing the nature of these summative tests to emphasize 'understanding' and 'application' over recall and memorization of information. Also, results of summative assessments are not being analysed to understand students' areas of mastery and learning difficulties. These scores or grades are merely recorded in the student-wise report cards.

i) Co-curricular and co-scholastic not well understood: Focus mainly on recording grades

Broadly, the skills and attributes in the co-scholastic dimension could be categorized (not actually done in most frameworks) as those in the:

a. Cognitive domain like problem solving, creative thinking, self-directed learning, decision making, etc.;

b. Interpersonal domain like communication, leadership, collaboration and teamwork, etc.; and

c. Intrapersonal domain like initiative, taking responsibility, personal attributes like punctuality, empathy, discipline, etc. In addition, areas like arts, music, work experience, sports and physical education are treated as co-curricular and are supposed to be included as a part of the regular school routine. However, there is lack of clarity about the nature of skills and attributes selected in different state CCE frameworks for the co-scholastic domain. At the school level also, teachers see the list of co-scholastic skills and attributes as just a random list of items for grading each student. In the Odisha CCE framework, a classification of the co-scholastic skills and attributes has been made in the form of co-curricular subjects (arts, music, health), other curricular activities (language related, scientific skills, games and sports) and socio-personal qualities. However, there is considerable confusion at the school level about the area of 'other curricular activities'. Overall, the list of co-scholastic items in state frameworks is less complex than what is included in the CBSE

CCE framework. Bihar was the only state of the six included in the review that did not specify any indicators for co-scholastic areas.

The CCE frameworks focus only on assessment techniques and allocation of grades for these co-scholastic areas rather than development of these important skills and attributes. This is a problem. Student growth on these dimensions would depend on the availability of opportunities in school for their development in the form of: (a) time, guidance and opportunities for sports, music, arts, public speaking, etc.; (b) cognitive skills like problem solving, metacognition, etc. during the teaching-learning process; and (c) organizing activities within and outside the classroom that allow scope for development of cooperation, leadership, expression and communication, etc. The schools visited did not have part-time teachers for music, arts and sports or physical education. The other teachers expressed their inability to support students for these dimensions. Grades are

being assigned to students in these co-curricular skills based on their participation in one-off events organized in schools like Bal-mela, cultural or sports competitions, etc. that are held once a term or even once a year. In Maharashtra, such activities were being organized more regularly.

Similarly, classroom processes do not provide scope for developing problem solving ability, logical expression, or creativity or self-monitoring of learning since the

teacher retains control of the process and the focus is on repetitive activities where students are largely passive. Students are not encouraged to ask questions, express opinions or argue on any issue. Many of these dimensions require modelling by the teachers at school for students to imbibe the behaviour or attitudes. Merely assessing these skills and attributes will not lead to their development or growth as desired.

The inclusion of values like honesty, cleanliness, discipline and respect for elders makes an assumption that these are all individual habits and attitudes and not determined or strongly influenced by the child's context and social/home environment.

The assessment process relies heavily on overt and displayed behaviour that can be easily observed and recorded, while many of these attributes are not always on display or observe

The Odisha CCE framework provides a list of indicators for many of these skills and attributes that are supposed to constitute the overall skill or attribute. Each indicator needs to be marked as yes/no to arrive at an aggregated grade for the attribute. Not only is the process of arriving at a grade for a particular attribute for each child complex and painstaking, it also assumes that there can be a clear-cut and objective, binary (yes/no) kind of assessment for the different indicators for the co-scholastic attribute being measured and that the aggregation of scores for each of the constituent indicators would represent a scientific measurement of the score or grade for that attribute. Some other state frameworks like those of Bihar and Uttar Pradesh do not really define how these dimensions will be assessed and graded. Teachers are expected to simply assign grades for the co-scholastic items without any detailed analysis or regular observations. This makes the process fairly arbitrary.

Most CCE frameworks have not defined some of the co-scholastic dimensions like problem-solving and creativity clearly. While some indicators have been suggested, the construct is not well defined. In addition, for

most skills and attributes, the descriptors for different levels of performance or grades (like A, B or C) are not clearly stated. Thus, teachers really do not have a clear basis for assigning a specific grade to a student. Teachers find it easier to grade a student on aspects related to participation in the morning assembly, behaviour during MDM, cleanliness, respect for elders, attendance, etc.

While, the message that aspects other than curricular subjects are important for a student's overall development, and they should be assessed seems to be understood by most teachers, schools are not prepared to be offering adequate opportunities for development of these skills and attributes. The result is that the work on this dimension is really rudimentary and tokenistic and focused only on recording some grades for these skills and attributes at the end of the term.

m) Some specific comments on CCE records

- **Teacher's diary or lesson planning:** One of the crucial documents that is a part of CCE records in all states is the teacher's planning diary. This could be a very useful record that documents the teacher's initial plan for a class, the actual experience of the class and follow-up action planned for the next class. It could also identify students who need greater attention for specific learning areas. With a few exceptions, the teacher's diary or the lesson plan for the day/week or month in all schools that were visited was written in a routine and mechanical manner. The teaching plan is a static document for a day/week/fortnight or a month, where no entry is made to reflect on the class that was conducted, and has notes on students who need more attention for specific topics. Only about half the teachers maintained updated lesson plans; and even they did not actually follow the documented plan during the class observed. Clearly, the diary is mainly maintained since it is prescribed under CCE and could be checked by the supervisors. The teacher diary format in Rajasthan has introduced some

elements that would require a teacher to reflect about students' participation, difficulties faced by them during the class and changes made in the planning for the next week. The lesson plan also requires documentation of proposed group activities, individual work and differentiated activities for the two groups of students with different learning levels that were identified at the beginning of the year, through the placement test. This could be a useful, reflective document that helps a teacher plan varied activities in a multilevel learning situation. However, most teachers had not maintained the diary in the spirit of the CCE framework. Overall, the static and routine manner of maintenance of teacher diaries reflects the 'procedural' and tokenistic and 'meant for others to see' orientation of CCE implementation.

- **Learning indicators are mostly grade-specific:** Except in Rajasthan (and to a limited extent in Bihar), the learning indicators chosen for the student-wise record of learning achievement or progress (for each term) include only grade-specific indicators. This does not take into account the fact that there is significant variability in learning levels in one class and that some students could be one or more grade levels below the grade they are studying in. Thus, a teacher cannot record the real learning level of students who are less advanced. In Uttar Pradesh, the advice to teachers is to select and record student-specific learning objectives and indicators based on the learning areas that the teacher worked with, for each student separately. This is a highly idealistic formulation and no teacher was found selecting a different set of indicators for each student.

- **Student progress report card:** This was not complete in most states because printed formats had not been supplied. The report card had not been shared with parents in each term as per the CCE frameworks in most of the schools visited.

- **Student portfolios:** In almost all the schools where student portfolios were maintained, they were a collection of colourful artworks or a good poem

written by the student with the objective of showcasing the student's creative or decorative work. This is a rather narrow interpretation of the student portfolio. The portfolio was not seen as documentation of the learning progress made by the child during the course of the year, including the student's worksheets, class test papers, examples from classwork or homework or a group project or regular observations of the teacher about the student.

- Continuous and comprehensive assessment CCE requires additional time and effort on the part of teachers: Teachers' perceptions: CCE record keeping is burdensome. In all states,

teachers complained of the work load having increased due to CCE. This perception originates partly from the fact that teachers were used to the earlier period when they were not required to document anything, e.g., lesson plans or student-wise learning progress. But, record keeping for CCE is burdensome in some states on account of the need to copy out notes or grades in several different formats each term. In addition, in Maharashtra, Odisha and Uttar Pradesh, the requirement of maintaining qualitative notes against each student on a regular basis is time consuming, and does not serve any formative purpose in the manner in which it is being done now. As discussed earlier, these vague, 'positive' comments recorded arbitrarily for any lesson/competency or indicator does not indicate the student's learning achievement or progress. Teachers have resorted to

copying from commercial 'guides' to write these statements and/or writing a vague phrase or sentence for any one skill area for the entire term. The recording requirements seem even more impractical for schools that have inadequate teachers and large class sizes. On the other hand, implementation of continuous and comprehensive assessment as a part of the teaching-learning process would definitely require additional time and hard work from teachers (Dhankar 2015). The teacher would need to understand each child, observe their learning behaviour, achievements and difficulties and keep some record of the classroom process. The aspect of comprehensiveness would also demand observing other skills and attributes of the students on an ongoing basis. Reflection on the teaching process for making changes and responding to the needs of each student would require considerable extra time, apart from a sensitive and reflective attitude on the part of the teacher. Right now, neither the education system, nor teachers have recognized this and thought about the need for extra time for implementing CCE in the right spirit, even though the RTE Act provides for a 45 hour working week for teachers, and that includes preparation time.

n) Training, academic support and monitoring is weak and of unsatisfactory quality

Most states (except Bihar) had completed one or more rounds of training and produced good quality manuals for teachers. But, in all states, teachers reported that the block or cluster level training for them was not of high quality. The master trainers, in many cases, were themselves not clear about some CCE concepts. They would focus more on conceptual issues and recording formats. The input on practical implementation of CCE in real classroom situations was the weakest part of training. Also, aspects of analysing assessment data, providing feedback to students and addressing multilevel learning situations were not addressed at all.

It is significant that in both Gujarat and Rajasthan teachers who had been involved as trainers for CCE were able to implement it much more effectively, showing that in-depth training does help, but teachers in general are not able to internalize the spirit of CCE.

On-site support was found to be woefully inadequate. During the infrequent visits of academic staff, the focus was on checking of records and question papers. The notes recorded by visiting academic staff from DIETs, BRCs or CRCs were of a general nature, often merely exhorting teachers to implement CCE seriously, rather than making specific observations and giving specific, actionable suggestions for improving CCE implementation. During interviews with master trainers and DIET personnel, it became clear that a majority of them had not themselves practiced the CCE scheme in classrooms. This greatly limits their ability to be able to provide strong academic support to teachers. The only places where teachers reported some on-going support for CCE were where an individual, and not the system, had taken on the task, for example a BEO in Satara district and a cluster coordinator in Thane district in Maharashtra. The DIET-BRC-CRC system is not functioning in a dynamic and vibrant manner in any state visited. At the CRC level, several states do not have full-time staff and CRC-BRC academic personnel have a huge workload of collecting data, reporting for SSA and other administrative tasks that have very seriously undermined their academic role. DIETs are suffering from human and financial resource constraints, poor leadership (except in three DIETs visited), lack of role clarity in academic leadership at the district level, structural constraints of a fragmented departmental set-up (six or more departments) and lack of funds for travel to schools on a regular basis. The fact that a DIET can play a positive role in an effort to strengthen a quality initiative like CCE was evident from the example of Dungarpur DIET that was presented to the team.

In Maharashtra, each teacher has participated in at least three rounds of

training that focused on CCE. This is reflected in a better understanding of concepts and procedural aspects of CCE at the school level in the state. In Rajasthan, the recent practice of subject-wise, monthly meetings of teachers to discuss and reinforce teaching methods and CCE messages is an example of good practice.

DEOs and BEOs had a very limited understanding of CCE and were not creating pressure for CCE implementation or reinforcing good practices seen in some schools. As stated earlier, a majority of educational administrators held the view that no-detention was causing harm to the system and examinations were crucial to bring back seriousness in to the education system.

o) Many enabling conditions are missing or inadequate

Some of the necessary conditions for the successful implementation of CCE were found to be absent in a majority of the schools. The CCE frameworks do not take in to account varied school situations in the design of the scheme or in the training and follow-up strategies. Some of these enabling conditions are found below.

- Multigrade classes in almost all primary schools surveyed. Most teachers did not have an understanding of strategies needed for effective multigrade teaching with 42 per cent of government elementary schools having just one or two teachers for teaching elementary grades.

- High PTR in some states (like Bihar) or districts. Most teachers felt that tracking individual children is not feasible if the class-size is more than 20 or 25. The inter-district distribution of teachers is inequitable. There are wide variations in PTR within a district and even a block. PTRs vary between 10:1 and 65:1 in several districts included in this review.

- Classrooms (e.g., in Odisha) with children belonging to tribal groups who had very limited or no understanding of the school language in the early years. There were also classrooms with children of multiple language backgrounds. Teachers were at a loss to address the language barrier in these classrooms.

- Poor or irregular attendance of children due to seasonal migration of parents

- Presence of CWSN children with no support to class teachers from special teachers

- Poor subject and pedagogic knowledge of teachers

- Delay in supply or non-availability of CCE formats: Implementation of CCE seems to be dependent on availability (supply) of CCE data recording formats. In Odisha and Uttar Pradesh, CCE recording had not been initiated in the new academic session (2014-15) because the formats had not reached schools. In Uttar Pradesh, where this was the third year of CCE implementation in these five districts, some teachers were not even sure that the CCE scheme would continue during the current academic year since the formats had not reached them and they were still waiting for administrative instructions about CCE implementation for the current year.

- Inadequate funds at the school level for stationery, crayons, photocopying of material including worksheets and formats, and books for classrooms and school libraries.

p) Learning indicators need review

Learning indicators seemed to have gaps or are inadequately defined or too general in some states for some subjects. For example, teachers in Rajasthan and Gujarat pointed out that learning indicators for the language subject are similar across several grades, e.g., able to read fluently with comprehension.

Often, learning indicators for skills and concepts that are foundational (of a lower level) to grade-specific indicators are not available in the list for recording progress for students, who may be one or more grade levels below the grade-specific expectations.

It is not easy for teachers to design simple assessments for many learning indicators.

Teachers would need more guidance and examples to design specific test items or activities for assessing some indicators.

q) Conflict between term-wise syllabus and the flexible approach of CCE

In all the states, there is a clear expectation of the extent of syllabus to be completed by the end of each month or term. Syllabus completion is an important dimension of monitoring by education supervisors when they visit schools. The focus is not really on how much students have learnt or if some students are not able to make satisfactory progress. This leads teachers to focus on 'covering lessons' of the textbook as per the prescribed schedule. This is in complete variance with the CCE approach of a flexible pace with a focus on student learning and adjusting the teaching-learning process, re-teaching, revising and consolidating as needed.
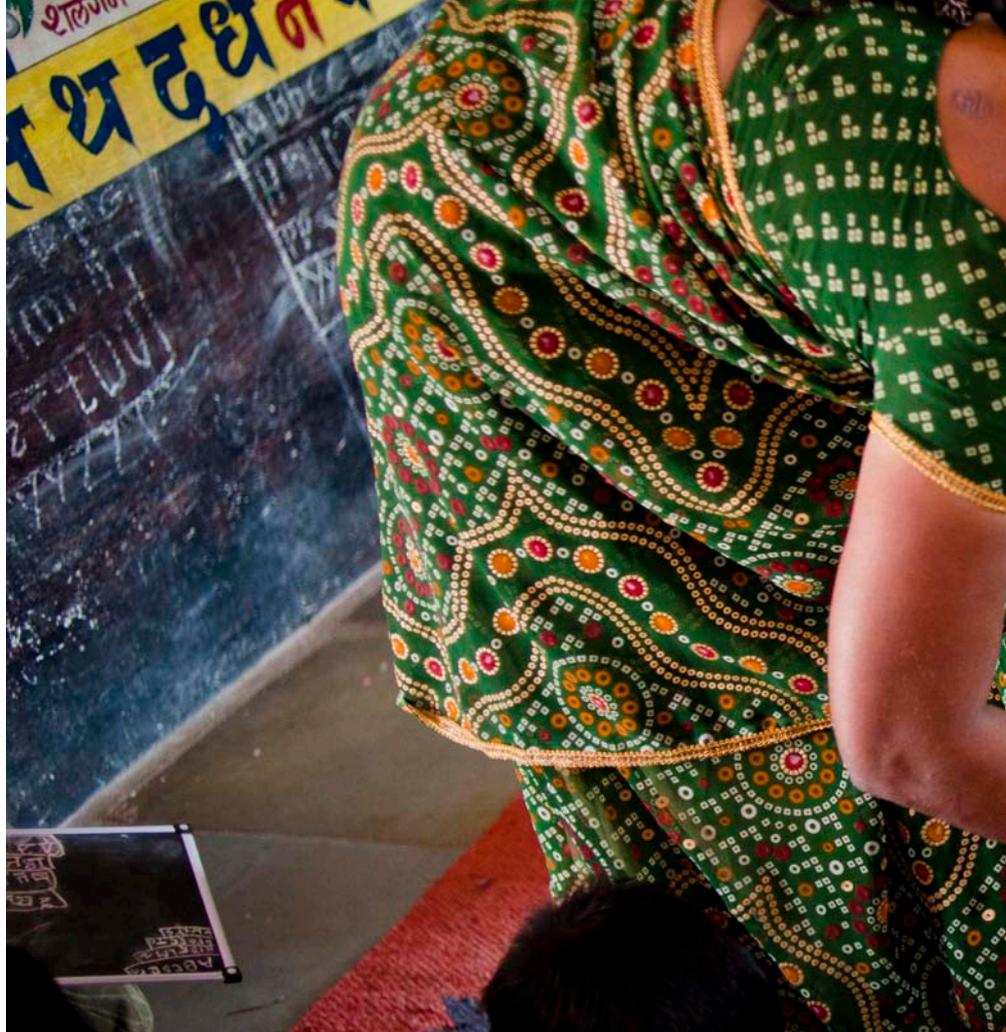
Chaper 5   RECOMMENDATIONS

The recommendations attempt to move beyond 'fault-finding' by providing some constructive suggestions for improving teaching-learning and continuous and comprehensive assessment across the system. As stated earlier, the CCE designs vary significantly across states. Therefore, the recommendations in this chapter would not be uniformly applicable to all six states. However, there are significant commonalities in the way CCE has been conceptualized and implemented in India, and many of these recommendations could be relevant for other states that were not a part of this review. This chapter should not be read as a standalone section of the report. The rationale of the recommendations would be much clearer when read with the introductory reference framework in Chapter 1; state-wise findings in Chapter 3, and the major conclusions in Chapter 4.

5.1 Reimagining and focusing on the central purpose of CCE

Much greater clarity is needed throughout the system about the objectives of CCE. In most states, the conduct of periodic assessments using a fixed set of prescribed tools and techniques, recording marks/grades or descriptive qualitative comments is considered the most important part of CCE. This is a very limited and narrow interpretation of CCE.

The central purpose of CCE should be to improve student learning. Once this is recognized, assessment will not remain an end in itself. The use of frequent, almost continuous assessments, as a part of the teaching-learning process to diagnose problems in learning, provide feedback to students, create additional learning opportunities and make modifications in the teaching process to help improve learning of all students must be recognized as the real objective of CCE and brought to the centre-stage.

A focus on student learning will lead to the necessity of developing a good understanding of a few more issues. One, what is our understanding of learning? Learning is constructing meaning: a deep understanding of concepts, principles and key ideas and the ability to apply them in different contexts; and not just mastery of factual knowledge and procedural skills. This understanding of learning has implications for the curriculum, teaching-learning process and assessment. Second, there is significant variation in student learning in the same classroom on account of various factors. This variability has huge implications for the teaching-learning process. The focus has to be on individual students and

understanding, their learning status and progress. The teacher needs to plan learning experiences for individual students and small groups and not teach the whole class uniformly. ABL-like approaches that factor in varied learning levels and provide scope for differentiated individual and group learning do provide a methodology for dealing with multilevel learning situations.

The highly centralized and prescriptive nature of the scheme including processes for assessment and record keeping would need to change with the focus shifting to flexible and continuous assessment as the responsibility of each teacher. The focus of maintaining records 'for others to see' has to be changed completely. The NCERT and SCERTs have an important role to play in communicating this central purpose of CCE.

5.2 The present teaching-learning process needs a thorough overhaul

At present, the spirit of CCE implementation in most states is that it needs to be implemented because it is mandated by the RTE Act. It is important that CCE be seen as a part of a larger initiative to bring about a significant change in the classroom teaching-learning process and an essential strategy, among others, to promote equitable learning.

Can effective teaching take place in the absence of learning? The current teaching-learning process, including assessment, needs a thorough overhaul. CCE, situated within this vision of a transformed teaching-learning process, has the potential of promoting equitable and enhanced student learning. Ensuring that all students make good learning progress is the best way of keeping at bay demands to bring back the system of annual examinations and detention following failure. However, this cannot be ensured by implementing a CCE scheme alone. Some very fundamental changes are needed in the classroom teaching-learning process for improved student learning to happen.

Good assessment practice is part of a good student-centred, learning focused and equity oriented teaching process. There is not much

point focusing on assessment alone if the overall teaching-learning process does not change. Therefore, a focus on assessment should be a part of a vision and pursuit of a transformative change in classroom processes. Some dimensions of a desired change in the teaching-learning process would include (naming only a few):

- Learner-centredness and active engagement of all students in the classroom process;
- Equity and inclusion of all students in the teaching-learning process; and
- Shift from rote memorization to understanding concepts and mastering skills.

Much of the shift needed is in the realm of beliefs and attitudes of the teachers and the system around children's abilities,

diversity and inclusion, the learning process, importance of motivation and having high expectations of all children, etc. These issues are rarely discussed during in-service teacher training programmes. Addressing these issues is a challenging task. Our teacher education system, at present, does not have the capacity or readiness to initiate a dialogue on these crucial aspects.

Apart from this, effective teaching would require teachers' command over subject knowledge and pedagogy to ensure learning. Based on the classroom observations during this review, other aspects of teaching and classroom management that could help promote equitable learning include:

- Enhancing students' time-on-task;

- Using appropriate practice of scaffolding;

- Using appropriate strategies for multigrade teaching situations that are pervasive;

- Strategies for addressing learning needs of all students in a multilevel classroom including some differentiated instruction; and

- Teaching at the level of students' understanding, and not just 'covering' the prescribed curriculum

However, in-service training programmes for teachers rarely emphasized these aspects. For example, the issue of multigrade teaching has always been treated as an aberration or anomaly and few training programmes provide practical guidance to teachers for planning for classroom management and teaching strategies for multigrade situations, even though they are so pervasive.

The attempt to bring about a transformation in the teaching-learning process through only a CCE initiative, as being attempted in Rajasthan, could be too ambitious. CCE cannot be the magic wand to solve all classroom teaching-learning issues. It should be seen as one of the components of effective classroom teaching. An insightful comment from a DIET faculty member was that there cannot be a CCE method of teaching; what is needed is CCT or continuous and comprehensive teaching!

5.3 Phased messaging for CCE: Focus initially on the essence of formative assessment

Too many messages have been included in the initial CCE training programmes for teachers. Faced with a multiplicity of messages and tasks prescribed through the CCE manuals, the system and teachers internalize the most tangible aspect, maintaining CCE records. Messaging and implementation of CCE should be phased to add newer dimensions in a gradual manner. In the first phase, the essential message should be about the concept and strategies for formative assessment, and

not maintenance of records of periodic assessments.

The teachers' handbooks for CCE need to include many more examples of subject-specific continuous assessment activities, especially for the upper primary stage. More activities that cover the entire curriculum could be developed during regular teacher meetings. The NCERT CCE packages for different subjects for upper primary stage provide many such examples for continuous assessment (NCERT, 2014).

Formative assessment is an integral part of the teaching-learning process. The teacher attempts to:

a. Understand students' learning status and problems in grasping a concept or mastering a skill through observing individual students or groups, checking students' written work, listening to oral presentations, observing project or laboratory work, worksheets and simple tests, quizzes, etc.;

b. Provide feedback to students on their work;

c. Provide additional learning opportunities through a variety of activities and practice for developing the skill/concept in a differentiated manner, as needed for students at varying levels of understanding;

d. Provide students a 'second chance' to demonstrate improved performance;

e. Keep track of students' learning progress for key learning outcomes; and

f. Draw conclusions from formative assessment for adjusting her/his teaching.

Guskey (2007) suggests that the most important use of formative assessments is to help teachers design and provide high quality corrective instruction. "Once you have assessed your learners, you must take action. You will be able to help your students achieve success by differentiating your instruction based on the information you have gathered. Ask yourself: Who needs my attention now? Which students need a different approach? Which students are not

learning anything new, because I haven't challenged them? 'Tiering' your activities for two or three levels of learners is usually what is called for after a review of assessment data. Tiered activities are a cornerstone of a differentiated classroom (where one concept is taught at two or three levels of readiness). We must be prepared to provide both corrective activities and enrichment activities for those who need them. An important caveat to keep in mind, however, is that the follow-up, corrective instruction designed to help students must present concepts in new ways and engage students in different learning experiences that are more appropriate for them. Your challenge will be to find a new and different pathway to understanding.'' Merely repeating an earlier process of teaching that has not resulted in learning the first time is unlikely to get better results a second or third time. Some examples of strategies for 'corrective' or follow-up teaching are: re-teaching the concept differently; individual guidance by the teacher; paired or group work; using alternative reading materials, worksheets and other learning materials like games and puzzles; and a variety of enrichment activities for more advanced students.

Developing and implementing varied teaching activities to address the findings from regular assessment is not an easy task for individual teachers. They need support for doing this. DIETs, BRCs and CRCs could help provide such support.

The following changes will be needed in the current CCE frameworks and implementation for a sharpened focus on this thrust on 'real' formative assessment. Formative assessment should not be seen as 'once a term' assessment of randomly selected learning indicators using a set of prescribed tools and techniques. Continuous assessment during the course of teaching using a variety of strategies, like observing and listening to individual and groups of students, asking questions (especially open-ended ones),

quizzes and tests, worksheets, reviewing students' classwork and homework, project work, etc., are crucial for informing the teacher about students' understanding.

- Allocating marks or grades for formative assessments detracts from the 'learning improvement' focus of such ongoing assessments.

- The focus of formative assessment must be on giving regular feedback to students to help them improve learning.

- The objective of diagnosis of learning problems and making adjustment to the teaching-learning process by using a variety of activities and providing extra support to the less advanced students (and enrichment activities for the more advanced students) should be at the heart of such assessment. In current frameworks, this aspect is woefully neglected.

- Reflection on classroom practice on a regular basis is an essential component of CCE.

- Follow-up on assessments to provide additional and alternative learning activities to individuals or groups of students takes extra time and the classroom schedule should provide for it.

- Teachers and teacher educators need to work collaboratively to design alternative teaching strategies and other remedial activities (post assessment) to provide a variety of learning experiences to students in a differentiated manner.

5.4 Addressing learning needs of students who are at different achievement levels

Children begin school at very different points in their social, cognitive, emotional and psychomotor development. Many of these differences persist throughout the years of school. As a consequence, rather than being at a similar stage in their learning, students in any given year of school are in reality spread over a wide range of achievement levels (Masters, 2013).

Thus, a multilevel learning situation is a reality in all classrooms, and teachers are very well aware of it. They need to be prepared for working with students at different levels during the course of regular teaching by using a variety of strategies, such as building background knowledge; motivating students so that they can remain engaged; using simplified texts; scaffolding; providing more opportunities to students lagging behind during class; allowing time for practice, revision and consolidation on a regular basis; and differentiated instruction for small groups for some time each day, etc. Teachers need to take specific follow-up action through a variety of teaching-learning strategies and tasks to address the learning needs of individual or groups of students on a regular basis based on assessment information (see Section 3 above). In addition, some form of remedial teaching practice on a periodic basis for students identified through regular assessment, can be institutionalized. This could include revision time and differentiated attention and learning tasks at the end of each day, a few times a week, at the beginning of each term and after any long school holiday. This will require teachers to understand basic principles of accelerated learning or bridging strategies. Also, the school should have additional resources in the form of practice worksheets and simplified texts for such remedial activities.

5.5 Clear vision and definition of core expectations from a 'CCE compliant' classroom:

At present the main expectation (from a monitoring and supervision point of view) is that CCE records should be maintained and updated regularly. We need to have a clear answer to the questions. What should be happening in a classroom that is implementing CCE in its true spirit? And, if CCE implementation was to be monitored on a regular basis or evaluated, what indicators should be used to assess success? In the initial years, the focus should be on an effective teaching-learning process that includes assessment and its follow-up.

Thus, instead of focusing merely on documentation of assessment data, the following monitoring indicators could be included.

- Is teaching happening at students' level?
- Are all or most students participating actively?
- Is there a mix of whole class, group and individual work with high time-on-task?
- Is the teacher using a variety of strategies for assessment during the course of teaching? Is there adequate time and scope for students to practice and revise?
- Does the teacher provide regular feedback to students? Is the teacher giving greater attention and time for less advanced students?
- What kind of 'corrective' activities are organized following assessment to improve learning?

These are very tangible indicators that are amenable to measurement and would send the correct messages about the expected change.

There could also be an expectation of improving learning outcomes. It is important to place 'equitable learning' at the core of any CCE initiative. A focus on equitable learning could be promoted through a strong

focus of academic support, monitoring and supervision on the progress of learning of the 'bottom' 20-30 per cent students in each class. This will need to be implemented carefully as it can easily result in distortion of documentation and reporting, as stated in a later point. Given the very low and varied learning levels in most of the states visited, the priority should be for effective bridging instruction for students who are far below the expected grade level. Maintaining and regularly updating CCE formats that do not reflect the real learning situation in the classroom is not of much use.

5.6 Beyond formative assessment: Well-designed summative assessments can also be useful

- **Frequent and objective assessments of individual students' performance on key learning outcomes through simple worksheets and class tests:** Well-designed practice and evaluation worksheets and simple oral or written class tests that relate to a specific skill or competency or a small unit of the curriculum/textbook can be very helpful for a teacher to understand what each student can or cannot do as also the nature of errors being made. If these papers can be kept in an orderly manner in each student's portfolio, they would give the teacher or any other person, including a parent, a picture of the student's progress during the course of the year. Such tests are not stressful for children as they are conducted as part of the teaching process. Some teachers' orientation is needed to prepare good test items that assess specific skills (validity), since the current tests typically focus on textbook content and require recall of memorized text from lessons that have been taught. Evaluation worksheets and class tests can be developed at school levels or through workshops at the cluster level on a regular basis.

- **Reform of the present summative assessment arrangement:** Ideally, the formative assessments and a record of

each student's progress on key learning indicators should suffice as the term and year end statement of learning outcomes and progress (e.g., student report cards in Bihar). However, given the situation in government schools and expectations of parents, well-designed summative assessment 3-4 times a year can help to provide an overall subject-wise picture of individual student's performance. However, these should not take on the colour of traditional examinations. If summative assessments are to be useful, the following should be kept in mind.

- Teachers should be supported (by DIETs/BRCs/CRCs or district and block subject resource groups) in preparing appropriate test items that assess specific skills and understanding and application of concepts. This is a huge gap in all states.

- Rather than giving only an aggregate score or grade for a subject, a system of simple analysis of test results can be worked out that helps teachers identify major learning gaps or areas of improvement for individual students. The head master and CRCs could support the teachers in this exercise.

- Summative tests should be integrally linked with follow-up to help improve learning for gaps identified for the class as a whole or groups of students. Thus, the beginning of each new term can be devoted to revision and consolidation for all students and accelerated learning (bridging) for students who are much below grade level based on a simple analysis of the term-end summative assessment.

5.7 Teacher education reform is crucial: Continuous teacher professional development strategies needed in the interim

A very different kind of teacher preparation and a continuous learning model is needed for attempting a transformation in the classroom teaching-learning process with

a focus on diversity and inclusion, learner-centred teaching and affirming all students' identities and capabilities for an 'equity in learning' environment. An extended and reflective dialogue on issues that relate to beliefs and dispositions about children and their learning process is best carried out during the longer duration pre-service teacher education. However, the quality of pre-service teacher education in the government and private system is really very unsatisfactory. A complete overhaul of the teacher education system including

structures, staffing, funding and professional development is a prerequisite for bringing about any significant change in the teaching-learning process in the country. Some suggestions for improving teacher professional development in the short to medium term are outlined below.

In-service training: The quality and strategy of in-service teacher training needs to be improved drastically, if the agenda of improvement in teaching-learning process and CCE is to be pursued seriously. Some aspects of in-service training that need to change and come into force are listed below.

a. Training should not be a once a year event, but a series of workshops throughout the year that reinforce principles and practices and help reflection based on classroom practice.

b. Teachers should not be handed down a prescriptive package of activities

and materials. Training should involve a discussion on the conceptual and theoretical underpinnings of the practices being proposed. Teachers' experience should be valued and 'trainers' should provide adequate time for discussing teachers' views and classroom experience.

c. Training delivery should be based on an understanding of adult learning principles. The methodology should be collaborative, experiential, reflective, and should build on the experiences of the participant teachers.

d. A significant proportion of time should be earmarked for demonstration or modelling and practice of methods that are being suggested. Practice and observation sessions in live classrooms followed by reflection and consolidation are crucial to build conviction. Use of videos that show good classroom practice will be very effective.

e. Training workshops should be rooted in classroom reality. Teachers relate much better to ideas and practices if they see the direct link with their classroom situations. For example, teachers respond very well to a training workshop that engages with the issue of a 'multilevel' situation in the classroom and identifies practical strategies for addressing the differences in students' learning levels. Teacher educators should, therefore, have experience of classroom teaching, or at least of working with teachers to understand how some of the desired practices work in classrooms in their context.

f. Simple, readable hand-outs that remind teachers about key strategies should be provided during training workshops instead of bulky and dense teachers' guides that provide lesson-wise minutiae.

Continuous professional learning opportunities: Apart from training workshops, the approach of continuous professional learning should include regular on-site academic support, teacher meetings on academic issues, visits to schools where

change is visible, open and distance learning opportunities, etc.

Regular academic support: A new initiative like CCE that envisages a transformative change at classroom level will take root only if there is strong academic support and follow-up on a regular basis. Right now, many teachers in the states visited are seeking guidance and resources for classroom activities for different curricular topics and for providing extra support to less advanced students. DIET, BRC and CRC staff should visit schools regularly, demonstrate and guide teachers about effective classroom teaching and assessment practice and provide inputs for additional classroom activities. Also, DIET-BRC-CRC staff could, with support from good subject-specific resource teachers, prepare question banks and worksheets for formative and summative assessments and guide teachers to undertake simple analysis of test results.

For this, the DIET-BRC-CRC system has to be revitalized and energized and given unequivocal responsibility for leading academic change. Of course, this requires that BRC and CRC staff are freed from the huge unproductive workload of data collection and reporting that consumes most of their time at present. In some states, the position of CRC has either been undermined or abolished. This will need to change if school level academic support is to be effective. A systematic continuous professional learning programme for DIET-BRC-CRC personnel needs to be put in place. At present, many of these academic support personnel undergo the same training as teachers. This does not equip them to provide guidance to teachers. Of course, the DIET-BRC-CRC staff would need to work hard to prepare themselves professionally by developing a strong conceptual understanding and prasticing strategies and activities being advocated for adoption by teachers in training programmes.

Teachers need to be involved in a consultative process at different stages. It is important to consult teachers and build

consensus for the need for this change. In this dialogue, the best entry point is the low learning of students and the huge disparities within the same classroom.

School head masters can be strong change agents if they are part of a dialogue on improving learning in schools and receive professional development inputs on leading the change effort at school levels.

Creating demonstration sites (schools) where effective CCE practice can be seen in action: Teacher educators should work with good teachers to bring alive effective CCE practice in selected schools and classrooms, where other educators can visit and see what it means to effectively implement CCE. This is, often, the most convincing intervention for other teachers. Here, all aspects of formative assessment including follow-up for improving student learning should be clearly visible and practicing teachers should be in a position to explain concepts and strategies being followed by them.

Broadly, teachers need to be able to observe good practice in continuous assessment, providing feedback to students and corrective action being modelled during training programmes, classroom demonstrations during on-site visits and through peer interaction in regular teacher meetings. The efforts of some teachers to incorporate good assessment and follow-up strategies should be reinforced. Once a year training programmes, cannot bring about change in deep-rooted teaching practices.

5.8 Flexible, minimum record keeping

Extensive record keeping requires extra time and energy of teachers and detracts from the real essence of assessments and their follow-up to improve learning. Suggestions and requirements for mandatory documentation should not be loaded on all at once in the initial period, when teachers are being familiarized with effective student-centred and equitable teaching-learning process, subject pedagogy and basic formative

assessment methods. The focus of the training programmes, regular academic support to teachers and monitoring should initially be on changing classroom processes, including regular formative assessment, feedback to students and follow-up action, rather than recording of formats. Some documentation is really useful for teachers' to plan for their future teaching and keep

track of individual students' progress. However, if prescriptive record keeping is included as a part of the initial 'package' of CCE, it becomes the central element of the scheme and teachers and monitoring and supervision staff focus mainly on the maintenance of records. In the initial phase of CCE implementation, there could be some indication about useful documentation that could be tried out by willing teachers. Gradually, this could be discussed in teacher meetings and workshops to build a consensus on a minimum documentation that is useful for teachers to adjust the teaching process and follow-up to improve student learning.

When, teachers understand the real objective of formative assessment and some practices begin to be internalized, some documentation could be agreed upon through a process of dialogue.

- **Teacher's Diary:** An open ended documentation of the teaching plan for the next day's lesson/teaching objective, followed by a short note about the how the class worked out (optional) and list of students who need more attention or

those whose work needs to be looked at in the next class. This should be a reflective document that helps a teacher plan for future classes/lessons (not for external scrutiny).

- **Student-wise progress for selected indicators:** A running record that indicates what each student can or cannot do against key learning indicators or outcomes (e.g., adding two digit numbers with carry over) is useful for the teacher as a ready reckoner to identify students who need more support. Gujarat and Rajasthan have introduced such a formative assessment record that categorizes each student up to three levels can do independently, can do with teacher support, and cannot do without full support. This record could include the status of the student when assessed first and when given another chance, after getting targeted support.

- **Student progress report card:** This is recorded once a term (2-3 times a year) and includes (stated separately):
  a. Subject-wise key indicators achieved;
  b. Summative assessment grades, if any; and
  c. Simple comments about the student's skills and attributes in the co-scholastic domain and any other significant achievement or need for improvement.

The above suggestions need to be read with the following additional comments.

- Formats that require detailed qualitative statements to be recorded for curricular subjects on a regular basis should be avoided. Teachers could maintain their own notes or checklists in a flexible manner for each child, and these are not meant for external scrutiny.

- The nature and level of details included in the teacher's diary could differ from one situation to another, e.g., a school where a teacher is required to teach only a few periods a day and another school with only two teachers teaching all subjects in five grades. Reflective noting that is not meant for external review should be encouraged. Teachers could share among

themselves the different ways in which the diary can be usefully maintained.

- The student-wise record of learning progress will need to include learning indicators/outcomes of at least one or two grade levels below the current grade. These could be basic skills or concepts relating to literacy and numeracy for primary grades and carefully (minimum number) selected concepts and skills for higher grades. The Rajasthan CCE scheme has attempted to introduce this dimension.

- Student report cards should indicate status of learning outcomes (from formative records) through clearly understood visual symbols (not grades) that clearly show what a student knows/can do at an advanced level, an average level or at a beginners level. Summative assessment grades (if included) should be stated separately, without any aggregation.

- A student-profile record that documents student's work and test papers or worksheets over the year and showcases some creative or exceptional writing/artwork, should be expected only in schools where the class size is small and where there are adequate teachers. States should look at how best to reduce duplication of documentation work between teachers' diary, students' learning record, report card, cumulative record, etc. In the initial stage, detailed formats that are prescribed centrally are best avoided.

5.9 Co-scholastic aspects need to be strengthened

It will be useful for states to review the co-scholastic sub-domains included in their CCE frameworks and present a clear rationale for skills and attributes that are considered important. To begin with, the focus should be on increasing opportunities for co-scholastic development for students, instead of an exclusive focus only on assessment and assignment of grades. For areas like music, art, craft, sports and games, this implies creation of time within the school day for

these activities and availability of part-time teachers for these areas, at least in upper primary schools as mandated by the RTE Act. For cognitive aspects like problem-solving, metacognition, creativity, etc. the teaching-learning process should provide adequate opportunities within the different subject

domains.

Till this can happen through a complete overhaul of the teaching-learning process, it is best not to focus on assessment of these cognitive skills and abilities. There is also a challenge in providing opportunities for development and assessment of interpersonal skills (like cooperation, communication, etc.) and intrapersonal skills and attributes (like self-confidence, taking responsibility, discipline, emotional stability, etc.) in the current school setting.

There needs to be much more dialogue and discussion about how the classroom process and in-school activities can help in developing these skills and attributes. Assessment should follow a strong inclusion of such activities in the learning experience of students in school. For example, schools that encourage all students to take responsibility for managing a number of school activities and events are in a much better position to include assessment of the individual student's ability to take responsibility. Some aspects of intrapersonal attributes like cleanliness, respect towards superiors, etc.

may need to be reviewed in some contexts. In some states, complex rubrics with multiple indicators have been introduced for assessing and grading some skills or attributes (like cooperation, leadership, etc.). This is not being implemented by teachers. It may be best to ease the pressure on assessment and assignment of grades for these attributes for the present.

Overall, the effort should, for the present, focus on providing adequate opportunities for students to develop various co-scholastic skills and attributes as a part of the school experience, rather than on assessment of these aspects and assigning arbitrary grades.

5.10 Need for system focus on student learning and responsibility for ensuring learning

The focus of training of head masters, academic support personnel and educational administrators should be on enhancing student learning. The focus of school visits and review meetings should be squarely on the learning progress of students, especially those students who have shown poor results. Teachers should also feel responsible for student learning. Their focus needs to shift from maintaining CCE records to making an effort to provide more scope for learning and practice by students and supporting less advanced students to improve their learning. This is a challenging task since it also involves changing deeply ingrained mind-sets about the nature of learning and outcomes expected.

5.11 Creating the right enabling conditions for implementing CCE: Systemic issues

The following enabling conditions are a prerequisite for effective implementation of CCE.
- Availability of adequate number of teachers and a reasonable PTR (around 30:1).

- Teachers with a sound knowledge of the subject and its pedagogy.
- Availability of classroom/school resources in the form of TLM, storybooks and other reading materials, worksheets or workbooks, stationery and printed formats for CCE records. Each school should have some funds for purchasing paper, photocopying, etc. for preparing worksheets, test papers and for students' drawing, etc.
- Teachers and the system develop a clear understanding and agreement on additional time and work needed for continuous assessment and follow-up. The RTE Act provides for teachers to work for 45 hours a week, including preparation time.
- Arrangements for 'special training' for children who are to be admitted to their age-appropriate grade; additional school or community based seasonal support for migrating children who need some bridging or coaching; and regular support from special teachers for CWSN.
- Strategies for supporting children who are studying through a language unfamiliar to them. These could be initiatives for bilingual or multilingual education or good second language learning practices.
- Curriculum, textbooks and learning outcomes pitched at an appropriate level: curriculum, textbooks and learning expectations are often at a higher level than what can be realistically achieved by students in a particular grade. This results in teaching being pitched at a level higher than students' current level of understanding and learning.
- Flexibility in syllabus and textbook coverage targets for each month or term.

For example, rationalization of teacher deployment to ensure that each school has adequate teachers has not been successful in most states. Not only is there a need for an initial redistribution of teachers according to norms, but an ongoing, continuous vigilance and rights-based approach is necessary to ensure that teacher transfers and placement

of new teachers maintain the required PTR in all schools.

The education system, must work towards creating these enabling conditions through a concerted effort. The fact that many of these conditions are not in place in a significant proportion of primary and upper primary schools will limit benefits from implementation of CCE or any other intervention focused on enhancing equitable learning.

5.12 Live and present danger: Hijacking of school based assessments

There is a serious risk of CCE data (students' grades - A, B, C in different subjects) being collected from schools and aggregated and analysed at district and state levels. Senior educational administrators have a penchant for getting school level assessment data collected and computerized to compare school and teacher performance and set 'targets' for student performance at school, block and district levels. This could easily result in fudging of CCE data to show secular trends in improving student grades. This would be the death-knell of school based continuous and comprehensive assessment. This is already beginning to happen in a few states. In several previous learning enhancement programmes, like the Rajasthan Reading Campaign, school based baseline and end line assessments were collected and compared to show significant learning improvements over a period of a few months. Of course, in many cases, the education system had already alerted teachers about their expectations of improved outcomes. That helped do the trick!

CCE is essentially school-based assessment that is meant to help teachers teach better and support improvement in student learning for a particular class. Such classroom based assessments is not comparable across schools. In fact, regular assessments should not be graded because they are not conducted to judge student performance

or compare different students. The onus for taking corrective action should be with the teacher with support from the head master and others. By collecting, transmitting assessment data upwards for analysis and follow-up action, the education system takes away the initiative and responsibility from the teacher and the school.

Therefore, any review focused on student learning that is based on CCE kind of assessments should be confined to discussion and assessment at school/classroom level, e.g., checking if student information on learning progress matches their actual performance through an 'on the spot' assessment, discussion about learning difficulties of students and why some students are not performing well and the steps taken by the teacher to support them, etc. Ideally, CRCs should work with teachers to analyse school and classroom assessment data to identify concrete follow-up action for specific classes and students who are not performing well. The MHRD and state education departments must be vigilant to prevent improper use of CCE data.

5.13 Serious review of learning indicators needed

States would need to review their subject-wise learning indicators from the following perspectives and SCERTs would need to relook at learning indicators.

- Indicators should reflect a clear learning progression across grades. Thus, indicators in later terms or grades should reflect a deeper understanding of the concept that may have initially been taught in an earlier grade. This is an important exercise in examining the curriculum and checking for sequence, flow, spiralling and progression of concepts across the primary and upper primary grades.

- It will be useful to identify the relationship between the learning objectives and indicators and textbook lessons since teachers depend heavily on the textbooks.

- Some indicators, especially for language subjects would need to be better defined (including standards or measures), e.g., reading fluency in different grades (what kind of text), reading with comprehension (what kind or level of comprehension), etc. Several indicators do not lend themselves easily to design of questions or test items. Teachers would need to assistance or collaborative work to identify ways of assessing performance for these indicators.

- A range of learning indicators should be available for teachers for each subject and grade to accommodate different learning levels in each classroom. Indicators of basic skills and concepts from previous grades should be included in the list for any grade.

5.14 Countering opposition to 'no detention'

CCE does not de-emphasize learning and the no-detention policy does not imply 'promotion without learning' (Nawani, 2015). The no-detention policy ensures that the student is not penalized for poor performance. CCE and no-detention actually

place a greater responsibility on the teacher for student learning and repose trust in the agency of the teacher and (should) help the teacher understand and practice classroom strategies for improving student learning.

The proponents of public examinations and detention raise the issue of students reaching the upper primary and lower secondary stages without having learnt much and blame CCE and no-detention for this situation. It is true that many students reach Grades VI and IX without acquiring even strong literacy and numeracy skills. However, this position is not worse than it was when annual examinations formed the basis of student evaluation and grade repetition. Grade repetition is the worst possible solution for poor learning taking place in our classrooms. Going through 'more of the same' inappropriate teaching-learning process for an extra year is just extra punishment for the child that results in lowered self-esteem, lack of motivation and faith in self, and eventual drop-out. There is enough research evidence to show that repeating a grade does not improve learning.

What is needed is a process for ensuring that almost all students acquire key skills required for progressing to a higher grade. Teachers with a strong subject knowledge and understanding of pedagogy who are committed to an inclusive teaching-learning process: use regular assessment to diagnose students' learning difficulties, progress and follow-up with supportive feedback and learning opportunities; engage in 'tier' teaching; provide extra time, attention and varied learning activities for students who lag behind, and ensure that almost all students progress to the next grade having acquired the key competencies of the previous grade. However, this is unlikely to happen soon in all schools.

While, we work towards this ideal situation, in the interim, pragmatic arrangements need to be put in place for ensuring that students with high learning gaps receive structured bridging and coaching inputs to help them improve their learning. We have already talked about frequent revision and consolidation and structured revision and remediation every week, after each long school vacation and at the beginning of

each term and the new school year. Outlined below is an example of a macro strategy that can be tried out (in the interim) in addition to regular in-class 'tier teaching', focused attention to less advanced learners and periodic remediation, to support students who may be falling significantly behind grade level expectations.

For some students (e.g., those who have not attended school regularly), the cumulative learning gaps could be really high over a few years in school. A specifically designed assessment before the end of Grades III, V and VII (say around middle of school academic sessions) could help identify gaps in students' basic skills and conceptual understanding that would make participation in the next higher grade quite futile. For example, the assessment in Grade III could focus on reading with comprehension and writing a few sentences independently (language) and number recognition; addition, subtraction and place value (mathematics). Following this assessment, the school has to organize special remediation programmes for these students in the period before the end of the school year, during school vacations, and at the beginning of the next academic year to ensure that each student has acquired the identified skills and understanding at a reasonable level. The responsibility of ensuring that each student masters these 'required' competencies should be that of the school. Students or their parents cannot be blamed for their under-learning. This would require additional teacher-time and resources beyond the school. This is a challenging proposition, but seems the only way that students do not progress to higher grades without basic skills. Similarly, additional teaching support (within or outside school) will be necessary for students who joined late in the year or return after seasonal migration.

There is a risk of such 'remediation' becoming the norm and a substitute for high quality regular teaching that supports students at different levels of learning.

Also, the system could focus on 'essential' competencies only. Therefore, this recommendation is really only for the short-term.

Finally...

CCE needs to move out of the present 'procedural', 'formulaic', 'safe' and 'showing to visitors' mode of implementation that is focused on meeting the requirements of the RTE Act. Its concept and implementation must be based on a strong conviction about using continuous assessment to improve student learning. What is needed is a clear and all-consuming vision and consistent focus on student-centred, active teaching-learning processes with a strong emphasis on equitable learning where assessment

plays a strong role in improving learning. The follow-up of assessment to provide feedback to students and initiate a variety of learning opportunities to help improve learning of all students should be at the heart of the CCE initiative. What really counts is what happens after the assessments (Guskey, 2008).

Along with this, there needs to be a consensus on the centrality of the role of the teacher in improving the teaching-learning process and creating a positive environment for student learning. Teachers need to see enough examples of modelling of good practices of assessment, feedback and corrective action during training, on-site demonstrations and regular teacher

workshops. Reflection and accountability around student learning should permeate the entire education system.

A related dimension is that of the desired shift from rote memorization, information and procedural skills to developing a deeper, application-level understanding of concepts. This is a big challenge and needs to be addressed in a fundamental way by the curriculum and a clear vision of what constitutes 'desirable learning'. Following that, the teaching-learning process and assessment will need to be aligned to this vision where the focus is on moving towards higher level of competence and deeper understanding in different learning domains. CCE, alone, cannot bring about this huge shift.

Educational administrators should start to believe strongly in the need to transform classroom processes and the role of regular assessments as an integral part of the teaching-learning process. A lot more work is needed in developing better indicators and their standards, and methods of formative assessment and strategies for follow-up corrective action for students at varied learning levels. The co-scholastic aspects of CCE could be strengthened by ensuring that the initial focus is on development of these skills and attributes through frequent and high quality opportunities in the school setting, rather than on assessment and gradation. The vision for CCE should be rooted in the reality of the state and not be a completely idealistic concept.

A major responsibility would be on teacher educators and institutions like SCERTs and DIETs to develop practical and 'doable' strategies for CCE and to continuous teacher professional development mechanisms for supporting teachers to understand and implement good assessment practices.

Further research needed...

The following ideas for further research could be explored and implemented in the near future.

- State contexts and CCE arrangements are quite varied. It is important that an in-depth critical examination of the CCE scheme, its implementation and impact in the classroom be taken up in these different contexts.

- This review did not include a sample where multilevel learning programmes like Tamil Nadu's ABL programme are being implemented. Understanding the process and role of continuous assessment in improving learning in ABL-type strategies would be useful.

- Documenting and disseminating good practice related to follow-up of assessments to support students at different levels of learning during the course of regular teaching would help advance the understanding of how strategies can be adopted to improve student learning in multilevel classroom contexts that are so pervasive.

Studies that focus on how (differently) assessment and follow-up practices have worked in schools with different 'enabling' conditions or learning environment, e.g., teacher availability or class size will help to understand the relative importance of these factors in successful implementation of CCE and similar initiatives.

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APPENDICES
Research Tools

State level
- FGD with the state team

District level
- FGD with DEO, BEO and DPC, SSA
- FGD with CCE trainers
- FGD for academic support staff for CCE with CRCs and BRPs

School level
- Classroom observation
- Head teacher interview
- Lesson flow, sequence and major activities matrix
- Teacher interview
- School background information
- School level analytical summary

State level

Research tool No: 1

Focused group discussion with the state team

Part I: Background information about participants

Name	Gender	Official post/ designation	What is your job responsibility?

FGD with state team that conceptualized the CCE scheme

These are essential questions, but suggestive and by no means exhaustive. You may want to add a few more questions in the course of the interview or seek greater elaborations/ clarifications on certain ideas listed here. Try and get as much information as possible and clarify any ambiguities in responses. Please collect relevant documents.

Part I: History of CCE in the state

1. When was CCE implemented in your state?

2. Who all were involved in its conceptualization (organizations, people, etc.)?

3. Did you use any existing resource available on CCE? Please elaborate (CBSE, NCERT or any other state).

4. Has the CCE policy changed over the years? If changes were made, what was the basis for those changes? What are the important changes? When and how were these rolled out/being rolled out?

Part II: Salient features of CCE

1. Please explain what CCE is all about? What are its salient features?

2. What kind of connections does the CCE envisage between teaching-learning and assessment?

3. Does the CCE model necessitate a change in existing teaching-learning practices? Are some changes taking place already? Please describe with examples.

4. In what ways is it different form the earlier system of assessment?

5. What were some of the issues with the earlier system of assessment which CCE tries to address?

6. What are the implications of CCE for:

    i. Teachers (including work load) and teaching;

    ii. Students and learning (their perceptions and ways in which they relate to it);

    iii. Teaching-learning processes and their relationship with assessment; and

    iv. Overall personality of students.

Part III: Incorporation of state-specific concerns

1. Are there any state-specific concerns which were kept in mind while designing the scheme in your state (any specific challenges that the state was grappling with)?

2. Does the model developed by the state address concerns of different regions in your state?

3. What has your experience been like in implementing this model in your state? Any region (district/block) specific challenges that you have had to deal with?

Part IV: Addressing concerns of stakeholders

1. Does the CCE model developed at the state level incorporate concerns of important stakeholders:

    i. Children; and

    ii. Teachers

    If yes, what concerns did the teachers have? What was the mechanism adopted to incorporate them? At what stage?

2. What are some of the concerns raised by master trainers with regard to CCE?

Part V: Resources developed

1. What kind of resources were developed to ensure sound understanding of CCE and its better implementation?

2. Have you developed any manuals for teachers or trainers? How many?

3. What was the process followed in their development? Who all were involved in their development?

Part VI: Assessment of scholastic and co-scholastic

1. What is the meaning of comprehensive? What is the importance given to assessment of co-scholastic/co-curricular aspects in a student's development?

2. What are all the aspects of the co-scholastic/co-curricular that students are assessed on?

3. What are the various ways in which students are assessed?

    i. Scholastic (both formative assessment and summative assessment)

    ii. Co-scholastic/co-curricular

4. What are the opportunities given to students in schools with regard to their co-scholastic/co-curricular development which were not there earlier?

Part VII: Assessment on the basis of learning indicators and follow-up action

1. How have learning indicators been identified? Do they guide the teaching-learning process and assessment? If so, how?

2. What are some of the learning indicators that have been developed on which students are being assessed? Are these indicators the same for every child? How is progress recorded for students who are not at grade level (or several grade levels below)? Do indicators provide an adequate range for varied achievements, and for students who may be several grade levels below? For example, for those who cannot read a text or do simple arithmetic operations.

3. How much flexibility is given to teachers to assess students? How strictly are these indicators meant to be assessed?

4. How is a teacher expected to use CCE records for follow-up action?

5. What guidance is provided for teachers to provide support to students at different levels of learning?

Part VIII: Assessment records

1. How many CCE formats are teachers required to fill up in all? For individual students? For the entire class? Please

be fully conversant with the formats in advance.

2. How many times are those forms meant to be filled up in a year? Are they closed ended or are teachers given some flexibility and freedom to fill them? (Get full details – we must have a copy of all those formats)

3. What is the place of summative assessments like tests and term-end or annual examinations in the CCE model? How are formative and summative assessment findings combined? Is this a good way of doing that?

Part IX: Aspects related to training

1. What is the system (levels, cascade, numbers per training) of training that you have evolved in your state for CCE?

   i. Trainers

   ii. Teachers

2. What is duration of these trainings? Please describe the major components of the training module. How much time is given for conceptual understanding of CCE, practical aspects of implementing CCE in the classroom, and record keeping?

3. Do other training programmes (e.g., those for different subjects) also include a component of CCE? Please describe with examples.

Part X: Other variables that need to be in place for CCE to be effective

1. In your state are the conditions in place for CCE to be effectively implemented? If not, describe what all needs to be in place (example small PTR, adequate provisions in schools, opportunities for development of co-scholastic) for enabling conditions to effectively implement CCE.

2. Have any mechanisms been initiated by the state to ensure that CCE is implemented in its right spirit? What are they?

3. To what extent do you think a CCE system can bring about a reform in teaching-learning processes? The idea is to probe if the state team thinks a CCE scheme and training can bring about a complete change in the way classrooms

function (e.g., student participation, activities, etc.)

Part XI: Follow-up, feedback and response

1. What are some of the projected/expected strengths of CCE? Are the expectations envisaged from CCE being fulfilled?

2. Is there a state level resource group or cell for CCE that meets regularly to discuss changes and further training based on feedback from the field? How often do members of this resource group visit schools to understand the nature of CCE implementation?

3. What is the feedback from teachers and DIETs/BRCs/CRCs about CCE implementation? How is the feedback collected and consolidated from different locations (districts, blocks, etc.) and different groups (DEOs/DIETs/BRCs)? How is this feedback discussed and responded to? Please describe with examples.

4. What is the mechanism for regular support and guidance to teachers on CCE implementation? Do you feel this is adequate?

5. Are school level assessment records regularly used/reviewed by someone outside the school? Please describe. (Please check if any mechanism is in place in the state for collecting and transmitting CCE data to higher levels. Please document the process of collection and report generation, and the purpose for which this is used if such aggregation/collection is taking place).

Part XII: Limitations and suggestions

1. In the current model of CCE, are there still some limitations which need to be addressed? We would expect response on conceptual dimensions and implementation.

2. Do you have any suggestions to overcome these limitations?

Part XIII: Concerns arising from desk review

These should be added in the different sections, where applicable. Or else, these can be added at the end.

District level

Research Tool No. 2: Focused group discussion with DEO, BEO and DPC (SSA)

S. No.	Name	Gender	Designation	Since when in current position	Number of years of service	Number of schools supervised

General

1. What according to you are the most important constraints for improving quality of education and student learning in your block/district?

2. What do you understand by CCE? What is the difference between the CCE model and the previous teaching-learning process and assessment practices?

3. What, according to you, are the strengths and constraints of CCE implementation in your block/district?

4. Does CCE implementation help address some of the quality and learning issues that you mentioned? Explain.

5. Have you seen any changes in classroom processes or student learning since the introduction of CCE (in this or a previous block/district)? Give some examples.

6. What do teachers and HMs feel about CCE? What are their concerns?

7. How do you monitor and review the working of schools for improving quality of teaching and student learning? And CCE implementation?

8. Is there adequate monitoring and academic support to schools for improving CCE implementation? How can it be strengthened?

9. What are your recommendations for improving the conceptualization and implementation of CCE in the state?

Research Tool No 3: FGD with CCE trainers

Date:_____Time:_____Duration:_____

Background information about participants_____

Name	Gender	Official post/ designation	Since when have you been in this post?	Have you done CCE trainings for primary school teachers? (Y/N)	Have you ever been a primary school teacher yourself? (Y/N)

FGD with CCE trainers

Part I: Design of CCE framework

1. What do you understand by CCE? What are its main features?

2. How is CCE different from the earlier system of evaluation?

3. Have you received any type of training or orientation on CCE? If so, for how long? What did the training focus on? (e.g., concepts, implementation procedures/ formats, how to use CCE records for teaching, role of academic support personnel, etc.)

4. Have you had the opportunity to use CCE yourself in a classroom? What was your experience?

Part II: Design of teacher training for CCE

Ask these questions only if interviewee has done CCE trainings

1. Has any teacher training for CCE been conducted in your district? If so, how were the training modules and materials designed?

2. Did you yourself have any input into the design of the training module? If so, what sort of input? If not, how did you prepare for conducting the training? Was there any 'train the trainers' module that helped you understand the framework and its implementation?

3. How was teacher training rolled out? Have all teachers received CCE training in your block/district?

4. About how many CCE training modules have you yourself conducted? About how many teachers in all have you trained?

5. Can you briefly describe the teacher training programme? What are the objectives and what are the activities in the training? How many teachers are usually trained together?

6. Is the type of training imparted for CCE different in any way from other trainings that you have conducted? Give examples.

The following questions are intended to elicit more detail about the training. What we want to understand is whether CCE training helps teachers both understand and practice the strategies and activities in real classroom situations.

1. CCE is a completely different approach to evaluation than examinations. During training, how much time do you spend on conceptual understanding, on actually practising CCE in the classroom, and on how to fill the formats? If some time is spent on conceptual understanding, how do you help teachers understand these new concepts?

2. CCE requires teachers to evaluate both scholastic and non-scholastic aspects of a child's development. How do you train teachers to evaluate non-scholastic aspects?

3. CCE also requires teachers to give grades to students rather than marks. How do you train teachers to do this? Is it difficult? Do you think it is a good thing to do?

4. What do you suggest to teachers during training in using CCE records for follow-up action in the classroom? The idea behind CCE is to provide feedback to teachers on students' learning, so that they can adapt their teaching methods accordingly and help students learn better.

5. How does the training help teachers deal with multilevel learning situations?

6. Do you feel that some parts of the CCE training are easier for teachers to understand than others? Which parts do you think are particularly difficult for teachers?

Part III: Opinion of CCE

1. Do you think that CCE is a better way of evaluating children, than the earlier system? Why or why not?

2. Do you think that teachers are able to use CCE records to take corrective action (e.g., change teaching practice and improve student learning)? Why or why not?

3. Do you think that children respond positively to CCE?

4. Do you feel that CCE puts too much pressure on teachers? Explain.

5. Do you believe that CCE is changing classroom practices in your block/district? Give some examples.

6. What do you feel are the major benefits of CCE, if any?

7. What do you feel are the major drawbacks of CCE, if any?

8. Do you have any recommendations to improve the CCE system conceptually (design) and in implementation?

Research Tool No 4: FGD for academic support staff for CCE (CRCs and BRPs)

1. What do you understand by CCE? How is this different from earlier system of assessment and teaching?

2. Has the introduction of CCE changed the work that you do in any way? If so, please tell us what has changed (nature of responsibilities, additional tasks, etc.)?

3. Do you feel that some parts of the CCE are easier for teachers to understand than others? Which parts do you think are particularly difficult for teachers?

4. Has CCE influenced the way teachers teach? What changes have you seen?

5. Do you feel that you are well equipped to provide support to teachers to implement CCE? What kinds of support do they need most often?

6. When you visit a school, how do you monitor, support and guide CCE implementation?

7. How often do you visit schools and classrooms?

8. Do teachers appreciate the CCE system? Do they have concerns? If so, what are their concerns?

9. What are your recommendations for improving the CCE system conceptually? How can implementation be improved?

Background information about participants

Name	Gender	Official post/ designation	Since when have you been in this post?	How many schools do you support?	Have you ever been a primary school teacher yourself? (Y/N)

Research tool 5: Classroom observation

Date of observation:_____

Name of school: _____School code: _____

Class being observed:_____Other class being taught by teacher (multigrade):_____

Name of teacher: _____

Start time: _____End time: _____

Actual time of class observed (in minutes): _____

Actual time teacher present in class (in minutes):_____

Attendance

Boys	Girls	Total

Subject_____

Lesson/topic and description: _____

Classroom physical environment:

1 (a) Lighting, cleanliness, comfortable seating arrangements, space availability, ease of organizing groups and disturbance from adjacent classes.

1 (b) Classroom layout diagram (showing blackboard, teacher and students): Please indicate seating arrangements-rows or circles, on the floor or desks/benches; boys-girls together or separate; two or more classes in same room?)

1(c) Classroom display and print-rich environment: Please attach at least two photographs of the classroom.
- Display of appropriate charts, posters and other functional prints.
- Display of children's work.
- Availability of classroom library or reading corner with easily accessible books.

Classroom culture/climate (positive and democratic):
- Students speak confidently to teacher; ask questions with ease
- Teacher encourages students to speak, appreciates responses; makes an effort to get quiet and shy students to speak
- Teacher promotes participation of children in activities

- Listens attentively to students and facilitates discussion.
- Students approach teacher and go near her frequently.

Students' active engagement in the teaching-learning process

Based on the 'lesson flow, sequence and activity matrix', please write a brief narrative about the extent of student engagement in the classroom process. The idea is to get a sense of the proportion of time that students were actively engaged and the nature of their activities. Please comment on the nature of student participation in the class. Were most (some or few) students engaged most of the time? Were only some students listening and responding? How much time was spent by students on purely mechanical type activities (e.g., choral repetition or copying/handwriting practice)? During which activity were students really actively engaged in learning? Was any group work assigned during the class? Were all students actively engaged in that work? Did any discussion or conversation occur between the teacher and students or between students?

3(c) Teacher's and students' questions

Please attach the filled-in 'questions asked' table. Please add comments here. Did the teacher's questions mostly require just a yes/

no or one word type answer? Were most answers given through choral response? Did the teacher attempt to ask questions of most students? Did the teacher encourage students to ask questions? Did students ask questions? What kind of questions? Did only a few students or many ask questions?

Overall teaching process and activities
- Evidence of teacher's advance planning for the class.
- Clarity and explicit statement of lesson objectives.
- Use of a variety of activities to address different needs and students' engagement in these activities.
- Evidence to show that teacher tries to understand learning levels of students for that topic/lesson and attempts to pitch the lesson at an appropriate level instead of just 'teaching the textbook'.
- Focus on comprehension and not just memorization or copying.
- Teacher makes reference to children's context and previous knowledge and experience.
- Assessment of the appropriateness of the pedagogy and activities for the topic being taught (clarity of presentation, effort to engage students, use of TLM, checking for understanding, etc.).
- Teacher's movement in the class, looking at individual students' or group work.
- Effort to revise and consolidate to ensure that most children have understood.
- If students' home language(s) are different, the teacher explains in that language (when required).

Evidence of classroom assessment
- Teacher goes around class observing individual students at work.
- Teacher asks questions of most students, expects individual response and provides feedback (in an encouraging manner).
- Teacher makes some notes of what s/he observes.
- Reporting back from group work by students and teacher comments.
- Teacher checks students' work and provides feedback.

- Teacher conducts an assessment activity and takes note of performance. Describe the activity and its follow-up.
- Understands differential learning levels in the classroom and attempts to address with some differential instruction for those who need greater support.
- Any evidence of the teacher changing teaching strategy, 'spiralling back' or revising an earlier concept or skill based on feedback from students (inability to answer)

Equitable classroom transaction
- Evidence, if any, of bias or discrimination or neglect of a particular group of students.
- Teacher gives adequate opportunity to most/all students; more opportunity (to speak, read or reply) to those students who are struggling to learn. Often, teachers get more advanced learners to read and speak in class.
- Identifies who need greater support and provides some differential instruction during class.
- Does the teacher group students according to learning levels (ability)? Is this the pattern for the entire duration of the class?
- Attends to and tries to involve a student or students who do not speak. Pays attention to any child with special needs.

Students' work

To be done after the classroom observation in just a few minutes. Look in some students' notebooks and see the work done that day and on previous days, and if it is complete and corrected by the teacher. Please record your observations.

Scrutiny of CCE records and observations
- **Lesson planning:** Is it updated? Does it appear to be well thought thorough planning or just mechanical listing? Have any changes been made based on experience of classroom teaching?
- **Student portfolios:** What does it contain? Does it provide a sense of 'growth' in the student's learning across the year? Are any assessments (like worksheets or class

tests) included? Is it only showcasing 'good' work of the student? Is it regularly updated? Is it carried forward from the previous grade?

- **Student-wise, subject-wise record of learning outcomes/progress against identified indicators or outcomes:** Is it maintained as prescribed in the CCE manual? Is it updated regularly? If records for the current term have not been filled up, you could ask for the previous term/year's records to understand the pattern.

- Consolidation formats for scholastic and non-scholastic evaluation AND

formative and summative assessments. Is it updated? Is the recording clear? Does it appear to be recorded appropriately for each child?

Others.....

Please record any major observations on CCE records here. You can further discuss the documentation during the teacher interview. A prior idea about the records will help you reference your questions during the interview to the records. You could keep the records for discussion during the interview.

Research tool 6: Head master/head teacher interview

(If not explained already, please give a clear explanation of the nature of research. This is not an evaluation of a particular school. We are only trying to understand the way CCE is functioning in the state. Some schools have been selected to study this and get perceptions of teachers and HT/HMs)

- Name of school:
- Since when were you HM/HT in this school?
- Gender:
- Total number of years of teaching experience:
- Educational qualification (highest):
- Professional qualification:
- Whether you are appointed, or in-charge?
- Which classes/subjects do you teach?
- Are you able to teach regularly, and how many classes (periods) a day do you teach?

(If the HM has been interviewed in his/her role as a teacher, then leave out questions already asked during the teacher interview)

1. What do you understand by CCE? What are its main features?

2. What is the difference between the CCE model and the previous teaching-learning process and assessment practices?

3. Do you think CCE requires any changes in methods of teaching?

4. What, according to you, are the strengths and constraints of CCE implementation in your school?

5. What changes have you seen in classroom processes and/or student learning since the introduction of CCE (in this or a previous school)? Give examples.

6. What do teachers feel about CCE? What are their concerns?

7. How do you support the teachers in improving the quality of teaching and student learning; and in CCE implementation?

8. How do you review the implementation of CCE in your school?

9. How often do academic resource persons from BRCs/CRCs or MTs support you and teachers? Do they discuss CCE during their visits? What do they do to monitor, guide and support CCE implementation in the school? Please show us comments of external visitors in the past four months. Please note if useful comments or suggestions have been made in this register and by whom?

10. What are your suggestions for improving the CCE scheme in terms of design, and its implementation?

Research tool No 7: Lesson flow, sequence and major activities matrix

School code:_____Class:_____
Teacher name:_____
Date of observation: _____
Total time of observation (minutes):_____
Subject: _____
Lesson or topic being taught:_____

Please record every significant activity during the observation period. For student activity, please record what most students are doing. You could also mention what other students were doing. Please add more space as necessary.

Please see examples of entries at the end.

No.	Teacher activity	Time	No.	Student activity	Time

Guidance for filling up this tool:

1. This is a record of the steps of teaching observed. The time duration can be mentioned in minutes or the actual times may be mentioned. This record should help generate a clear picture of the transaction during that period.

2. When the teacher is away from the classroom, please record only the students' side of the table and note 'Teacher not in class' on the teacher's side of the table.

3. **Activities can be described as follows:**

   Teacher: Recites a rhyme without any actions or voice modulation.

   Students: Repeats after the teacher. All students repeat, but disinterested.

   Teacher: Calls students one-by-one to the blackboard to read words (with 'aa' matra), stands near the blackboard correcting what the student says.

   Students: Apart from 2-3 students in the front, most students not engaged; some are just watching (looking at the blackboard).

   Teacher: Reads from the textbook word-by-word.

   Students: Repeat in chorus loudly one word at a time.

   Teacher: Asks students to copy from the textbook; calls 5-6 students to his/ her table, teaches addition and gives them sums to do individually.

   Students: Most students are copying from the textbook. A few are distracted and do not write. Five to six listen to the teacher and receive separate classwork

4. This is not a minute-by-minute record, but contains a description of the major steps in the lesson (teacher and students' activities) with duration of activity.

CCE questions

School code:_____Class:_____ _____ Teacher name:_____ Subject:_____

Teacher's questions

Duration for which recorded (in minutes):_____ minutes:_____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
Teacher puts question to:																					
Entire class																					
Some of the children																					
Who answered?																					
Entire class																					
Some of the children																					
Himself/ herself																					
There was no answer																					
The question required																					
A simple yes/ no answer																					
A one word answer																					
A one sentence answer																					
A longer answer																					

Students' questions

	Tally		Total
Girls			
Boys			
		Grand Total	

Some examples of the questions asked.

1. Examples of questions asked by teacher that illustrate the nature of questions and replies expected.
2. Examples of some questions asked by students

Research tool No 8: Teacher interview

(Please see interview guidelines)

School name:_____School:_____ code:_____Teacher name (optional):_____

Date of interview:_____ Time_____Duration:_____

Basic information

1. Age :
2. Gender:
3. Regular or contract:
4. Number of years of service:
5. Number of years in present school:
6. Classes/subjects taught (since when?):
7. Are you also the head teacher/ headmaster?
8. Educational qualification (highest):
9. Have you completed your D.Ed.? When?
10. Have you received any in-service training in the past one year?
    - When? (month, year)
    - Duration (no. of days)
11. Distance of home from school: Kilometres and time taken for one-way travel (minutes)

Part I: Conceptual understanding

1. What do you understand by CCE? What are its main features?
2. How is different from the earlier assessment system? Explain.
3. Do you think CCE requires any changes in the way you teach? Give examples. What changes have you made in teaching?

Part II: Implementation

1. Since when has CCE been implemented in your school?
2. What are the different techniques that you use in your class for assessing students? Please give examples of technique (s) used in the past few days for your class? Ask a follow-up question if the teacher does not talk about co-

scholastic assessment (please note if this was in response to your question)?

3. Do you use learning indicators to assess student learning? If so, how? If not, what is the basis for assessment? Please describe with examples.
4. How do you record a child's progress? Do you keep informal records as well as the required formats (ask the teacher to explain, using her own records)?
5. Do you face any problems in maintaining these records?

Part III: Training and academic support

1. Have you received any training for CCE? When and how many times?
2. What kind of CCE training have you received (duration, focus, activities)? Please describe with examples.
3. Did you find them useful?
4. What were some of your concerns which were not addressed during training?
5. Do use CCE manuals meant for teachers? How do you find them (usefulness, challenges)?
6. What kind of additional academic support do you require to implement CCE? Do you receive it? Please elaborate (how, how often, by whom).

Part IV: Usefulness

1. Do you look at CCE records to understand your students' learning level? How do you use these records? (e.g. to guide teaching and improve children's learning) Give examples.
2. CCE requires that the teacher understands the level of each child or groups of children, and provides support accordingly to enhance each child's learning. How do you provide support to children who are at different levels of learning? Please describe with examples.
3. Are you able to complete the syllabus? Probe further for challenges or strategies.
4. Has student learning improved after adopting CCE? How do you know?

Part V: Recommendations and challenges

1. What do you think about the way that CCE is conceptualized in your state?

2. What are some of the difficulties/ challenges that you face in understanding and implementing CCE?

3. What are your suggestions for improving it?

Part VI: Analysis of CCE records of 2-3 students and discussion with teacher

(While a particular methodology is suggested, the state team may follow a slightly different process to provide the information as suggested)

22. Analysis to be recorded

- Did the assessment entries for the 2-3 students appear to be appropriate across the past year and this year? Why or why not? Do you think the entries reflected an objective system of assessment of individual students' learning?

- Did the teacher have reasonable explanation for the CCE entries? What kind of follow-up had she taken for these 2-3 students? What is their present performance?

- Does there seem to be some expectation of improvements in CCE grades towards the end of the year? How do you know?

Suggested process:

1. Identify 2-3 students during the classroom observation or right after that, and observe their notebooks or classwork.

2. Now, ask the teacher to show you the CCE records (for language and/or maths) for these students. You should look at any current year's records and last year's records. In some states, entries may not have been made in the CCE records for the current academic session (as the first term is ongoing). Please ask for last year's records.

3. Please ask the teacher to explain how she had recorded the marks/grades (or ticks and crosses) for selected indicators against these students and how was the progress across the past academic year. Please observe the pattern of recording for a few indicators across the year and in the first term of the current year. Please request the teacher to explain the rationale for the grades/marks, etc. Please also ask the teacher to explain how s/he used the CCE record against different indicators for these 2-3 students to take any follow-up action.

4. This discussion can take place before/ during or after the rest of the interview. This can easily lead to the teacher expressing his/her opinion about the process of recording and expectations of change in grades by the administration in a natural way. This also makes the discussion very concrete with examples of CCE recording for 2-3 students.

Research tool No 9: School background information

(Gujarat to record enrolments and attendance for Grades 6-8; add information on subject teachers as required under RTE)

1. Name of school: _____

2. State: _____District_____

3. Block:_____

4. School code: _____Date:_____

Part – I (General)

1.	Distance from town	Km
2.	Distance from pucca road	Km
3.	Distance to secondary school	Km
4.	▪ Is the school building in good condition? (attach photo) ▪ Are there adequate functional toilets? ▪ Is there a boundary wall? ▪ Is there a playground? ▪ Are library books available?	
5.	What are the classes in the school (e.g., I-V, I-VIII, etc.)	
6.	Do any classes sit together regularly (multigrade)? Which ones?	
7.	Is there adequate space for all classes?	

8. **Socioeconomic status of the local community:** Give a brief description of the social and religious group, economic status (e.g., occupation, stability of livelihoods), language background of children, diversity in school, etc.

9. School enrolment and attendance on the day of visit (as per record/display).

	Preprimary	Class 1	Class 2	Class 3	Class 4	Class 5	Total
Enrolment							
Attendance							

Part – II (Teachers)

1. Number of teachers

Sanctioned	In position			Regular*	Contract	Present on date of visit	
	Male	Female	Total			**Male**	**Female**

*Please record if the terms are different (how?)

    i. How are teaching responsibilities divided? Class-wise and/or subject-wise? Please describe with examples.

    ii. Is any teacher designated for sports, arts or music?

    iii. Is there a head teacher? Regular or in-charge?

    iv. Does the school have a time table?

    v. Any other impressions about the school infrastructure, overall management of the school, role of HM /HT, etc.?

    vi. Why was this school selected for the review?

Research tool no. 10: School level analytical summary

School name:_____

Reason for inclusion of this school:_____

School context: A brief picture of the school, e.g.: enrolment; attendance; number of teachers; whether there is a regular head teacher: socioeconomic background of students; SCR; quality of classroom; seating space in classrooms observed; and when was CCE introduced and at what stage it is. Any other impressions about the school.

Purpose of this fieldwork:

1. To get a feel of whether school staff understand the conceptual underpinnings of CCE and how it is intended to help children learn better.

2. To observe school level implementation of CCE and specifically:

    i.   Whether the evaluation process is clear – teachers understand what to do, when and how to do it;

    ii. Whether it is practical – given the size of the school and the number of classes each teacher teaches

and whether teachers are able to maintain the required records;

    iii. Whether all parts of the framework are implemented – scholastic and non-scholastic, individual and whole-class records, etc. – or just certain parts of it.

    iv. Whether the observed classroom teaching-learning processes are conducive to CCE.

3. To understand whether CCE is useful to teachers – whether it has changed teaching-learning processes in any way. Specifically, whether CCE records are reviewed by teachers and used to adapt teaching methods. If so, in what ways.

4. To identify specific areas of difficulty or concern, from the point of view of (a) the school staff and also (b) from the point of view of the researchers. These areas could be conceptual or practical.

On the basis of your classroom observations and interviews, please write a 2-3 page summary of how this school is doing on the above points. Please be as specific as you can and make sure that your opinions and conclusions are supported by what you observed or heard in the school.

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