What did you learn at school today?

Conversations on Assessment and Education

Proceedings of 13th Wipro Partners’ Forum
19-21 December 2012
Centre for Learning, Bangalore
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Wipro Applying Thought in Schools is a social initiative working on building capacities in school education reform in India. We aim to contribute towards systemic improvement of school education in India.

Our work in education is driven by the belief that education is a key enabler of a better society. We believe in a social vision of democracy where each citizen is not only capable in an individual sense but also sees the ethic of equity, the essentiality of diversity, the ethos of justice, and is thus driven by social sensitivity. Schools have to be spaces that nurture these principles, capabilities & values. Our notion of good education derives from these anchors. Good education is that which enables the growth and development of the child in multiple dimensions, so that she is able to fulfill and expand her potential, as also to become an active, contributing and concerned citizen of the world. These multiple dimensions of development of the child include the physical, cognitive, emotional, ethical and social. Good education develops the abilities of learning-to-learn, critical thinking, problem solving, conceptual understanding etc. and is not based on rote.

Our key strategy in this endeavor has been to work in partnership with civil society organizations across the country. By supporting civil society organizations in education to develop and grow, we believe that a more long term and sustained impact can be created. Over the past 14 years, we have associated with 60 organizations at different levels and worked closely with 35 organizations working in improvement of school education.

Our partner network has evolved into a community of organizations and individuals who share this social and educational vision. Partners’ Forum, which is an annual gathering of this community, is a platform where this community comes together to discuss, debate and reflect on topics of relevance to education. We bring out the proceedings of these forums to share the conversations with a larger audience of teachers, parents, educationists, administrators and policy makers who may be interested in these topics.
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PREFACE

Assessment has been imagined to serve a variety of purposes in education – to help the teacher understand what her students have learned, an indicator of the student’s merit or worth, to determine a student’s entry to different streams of higher education, an indicator of a school’s quality, as an instrument of change in education reform to bring about a shift from rote-memory to conceptual understanding, a tool to assess the health of the education system as a whole and inform policy. Depending on where you see it from, assessment can be the panacea or the root cause for all the ills in the education system.

National Curriculum Framework 2005 made a quantum leap in at the level of the curricular framework and perhaps set the stage for further reforms in school education. With Right to Education (RTE) Act in 2009 came no-detention policy and Continuous and Comprehensive Evaluation (CCE) in schools. CBSE made 10th Standard Board exam optional and rolled out CCE in schools. Many state boards also did away with exams and pass and fail in lower classes and began implementing CCE. Thus in 2012, when this forum was being planned, a lot was happening in the space of assessment in India.

Most schools, in the name of examinations, weren’t doing much more than assessing the children’s ability to memorize and reproduce information. Therefore, the basic idea behind CCE and assessment reforms was a welcome initiative. However, many concerns surrounded its implementation on the ground. Many teachers and educationists were concerned that policies of no exams and no detention in lower standards are only propelling students to higher classes without ensuring minimum learning levels. Parents seemed to feel more comfortable when they know how their children are scoring in tests – an absence of testing is often seen as a dilution of (seriousness in) learning itself. Excessive administrative processes associated with the implementation of CCE made it a burden for the teacher. Thus, while continuous and comprehensive evaluation, formative assessment and assessment of attitudes
and values all seem important ideas, confusion and chaos ruled when it came to putting these ideas into practice.

While these changes were happening in school-level assessment, large scale assessments like ASER, QES or PISA have been attempting to assess the systemic health of education as a whole, from different perspectives. This has provided some insights into various learning outcomes, it also raises questions about how to interpret these results and what use should such results be put to.

It was in this context that Wipro Partners’ Forum in 2012 Dec took up “Assessment and education” as the topic of discussion for its annual 3-day gathering and tried to look at the following questions:

- What can we learn from school-level experiences in assessment?
- What’s the role of large-scale assessments in improving school education?
- What are the conceptual and philosophical issues in assessment and how can these inform us?

The first day of the forum opened with an introduction to the historical context of assessment in Indian education and the trajectory of assessment reforms in the country and examined the key conceptual aspects involved in assessment.

The next three sessions looked at three different assessment initiatives at the school level.

- Kalikayatna, a learning initiative where a comprehensive approach to assessment weaved into pedagogy was implemented in government schools, complete with processes and artefacts such as report cards and student portfolios
- Riverside, a private school where innovative pedagogic and assessment practices including self and peer evaluation were implemented
- Chrysalis, a curriculum being implemented in many private schools where assessment is inbuilt into the curriculum and its pedagogy

Not much attention is paid in schools to the social and emotional learning and development of the child. However, a lot of this learning and development happens consciously and unconsciously in classrooms. A panel discussion explored the question of how to look at the assessment of this aspect of learning and the challenges and pitfalls involved in such an enterprise.

Teachers are key to the process of learning that happens in schools. The next presentation looked at the various dimensions of a teacher’s work and
presented a broad framework that can help the teacher assess her own work and chart out a path for her own professional development.

The next set of sessions were focussed on the topic of large scale assessments. Educational Initiatives shared their experiences and learnings from large scale assessments and presented a case for why these are important. The next session was a narrative of how ASER came about through many years of Pratham’s efforts to involve community in education and presented Pratham’s perspective on ASER and large scale assessment and reform in education. These two sessions were followed by a panel discussion on the pros and cons of large scale assessment and the pitfalls surrounding it.

The last set of sessions were aimed at exploring the conceptual and philosophical issues in assessment. The first of these explored the assessment culture (pedagogic regimes, more broadly) that runs through our education system, based on the insights from a study covering a diverse range of schools in Hyderabad. The next presentation explored the conceptual issues inherent in large scale assessments, what such assessments can assess and the implications of such assessments on the education system. The final session explored the possibility of creatively using the CCE manual to implement the ideas in NCF, based on the experience of doing this in a CBSE school in Pondicherry.
ACKNOWLEDGMENTS

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Jacob Tharu for a very lucid narrative of the various aspects involved in assessment and the historical context of assessment in Indian education system.

Gowri B S for showing us how even within the framework of an existing curriculum and syllabus, it’s possible to implement a learning model in government schools which integrates formative assessment practices in the classroom.

Deepa Avashia for sharing from her rich experience, the innovative pedagogy and assessment model at the Riverside school.

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Nimrat and Neha for showing us the diverse domains a teacher navigates in the course of her work and for sharing a framework through which one can understand a teacher’s work.
Vyjayanthi for sharing her perspectives on large scale assessments and the experiences and issues one faces when designing and implementing them.

Rukmini for telling us the engaging tale of how the ASER (Annual Status of Education Report) initiative came about through Pratham’s work.

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Rod for drawing an interesting parallel between the US and India in their education reform trajectory and showing us how even an unimaginatively written manual for CCE can be used to build a very imaginative pedagogy and assessment; and not to forget, that fleeting glimpse into the world of intuitionist philosophy.

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All our partners and other participants who came to the forum for making the discussions as enriching as ever and the forum itself a space and time for joyful sharing and camaraderie.

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A Historical Survey of Assessment Models in India – Potential and Challenges

Jacob Tharu

Jacob Tharu taught psychology at IIT Kanpur (1967-73) before setting up the Evaluation Department of the English and Foreign Languages University (formerly CIEFL), Hyderabad till 2003. His areas of work included teaching courses on testing and research methods at P-G Diploma and assisting national recruitment agencies and secondary education boards with test design. Post retirement he has been associated with National Assessment Surveys (NCERT) as well as Sarva Shiksha Abhiyan (SSA) review missions. He has also served as resource person for Tata Institute of Social Sciences (TISS) and for NGOs working in the field of education. Some of his current concerns include Continuous and Comprehensive Evaluation (CCE), bridge courses in English for college entrants and teachers’ professional development. Jacob presents an introduction to the historical context of assessment in Indian education and the trajectory of assessment reforms in the country and examined the key conceptual aspects involved in assessment.
Having been a teacher of assessment, addressing teachers for a long time, I will try and clarify one or two concepts in assessment. Examination is the big bad thing we’ve got under control because CCE isn’t coming and CBSE (Central Board of Secondary Education) has abolished the board. I’d like to clarify one or two points in relation to that – what assessment is, or what measurement is, or what testing is, which I think we don’t pay much attention to because we take it for granted.

As has been said rightly, we have an examination system in this country, not an educational system. Now an educational system is slowly coming out of the crevices and asserting itself. We are in that transition. All of us, as students in high school, and some of us who studied English, have written character sketches based on stories and novels. What happens there? We take what a character or person does – or says, if it is drama. Shakespearean drama is only what a person says. They don’t do things, they talk about things. From that we make an inference about them – about a certain enduring personal quality. So we have the character of Lady Macbeth, of Hamlet and Lothario and so on.

This is very important. We are looking at performance and making an inference about a personal quality which causes that performance or underlies it. This is exactly what we are doing in testing. We’ve got to be very, very clear about this, because the fact that there is something called behaviourism – a big, bad evil – and we want to get it out of the way, is a wonderful thought. But if you want to use the word ‘assessment’, you’ve got to remember that this is what we are doing. The test is basically a means of eliciting a performance. So the question paper is the means of obtaining an answer script. It is what the assessor does with the evidence of performance in the answer script that constitutes evaluation. We keep on talking about paper setting and books and so on. For many, many years, we have encountered that, but we never really paid enough attention to the whole process of how assessment was done.

There is this indirectness in terms of what we observe. We can’t observe what is inside, directly, so we have to find what is called an observable indicator. This is nothing to apologise for because even a physicist can’t do anything better. Body temperature is measured by putting a thermometer in a child’s mouth and then looking at a column of mercury. It is this column of mercury which allows us to make an inference.

If we are using the mode of assessment, which is an empirical process, we are finding an index of it – and that index is performance. If you don’t like the word behaviourism, don’t call it behaviour. But this is something that we have to be very careful about.
In the field that I have been working, I have always argued that there are two traditions. One is that of psychological testing, which is actually the parent discipline, psychometrics, in which I had my basic training. Psychological testing relates to enduring personal qualities – intelligence, attitude and so on – and this is where the notion of reliability comes in. Because we see a test applied to somebody, an inference is made and a score is give to the person. It shouldn't be very different two weeks later, or three weeks later. Then if someone else comes along and gives the person a test, it should be pretty much the same. What we are assuming is that there is something fixed. That is a big statement.

The whole theory of reliability in psychological assessments is based on this – laughable – assumption that human personal qualities are stable. How deeply we believe in this, of course, is evident every day. Because every time anybody opens his or her mouth and says something about merit, what are we talking about – some sections of our society which have merit and some sections of society which don't have merit, right? So we have to be very careful about this assumption.

That is about psychological theory. In education, there is a difference. Broadly, our primary focus is on learning – and the problem is that learning, by definition, is something changing, something elusive, emerging. So what is a test of learning? This is a fundamental dilemma in educational measurement, which has never really been answered.

What are our examinations? We observe high school students between the 21st and the 28th of March and we make some inferences. And for the rest of his or her life, this is a caste mark – third class matriculate. Assessment, if it becomes recorded and personal and stabilised, is like giving an attribute to a person. This is really a fundamental problem in the assessment of learning – that we have to find something that we have to rate. We observe learning at a particular time, yes. But what are the inferences and what are the categorisations that we can make of it? That is another fundamental issue that we have to work with.

We also need to reflect on what we do operationally. The term ‘psychological evaluation’ doesn’t come in any textbook. Many of you, I think, have worked in education so you have psychological testing, only, with the prefix ‘education’ – educational measurement and evaluation. Psychological evaluation is something which may be done for a particular purpose by a set of specialists, but normally we don’t talk about psychological evaluation. So I would say that psychometrics is basically a descriptive discipline. We use its findings to say
some people are intelligent, some races are intelligent, or unintelligent... The basic operation is one of description.

In educational testing, it seems to me, right from the beginning, we are making judgements of adequacy. Have you learnt what you were supposed to learn? Whether we call them marks or whether we call them grades, the whole activity in education is that intervention for which we expect some outcomes, and the responsibility is on the learner to demonstrate that. How intensively, how forcibly or how unkindly we do it is a matter of choice. But we need to reflect on this. So when you say objectives – learning outcomes – we don't have to buy Benjamin Bloom but we are thinking in terms of expected outcomes. That is another dilemma that we have in the field of assessment.

In a pedagogic theory, we are saying we believe that these things are desirable for children as we – at least in modern education – draw them into society. It could bring them to be able to contribute to society, to change society, to live a meaningful life and so on. We are also saying that these are the mechanisms, the means, by which we will provoke that learning. That is the best we can do and we get new theories, new understanding and new equations. But as soon as the term assessment/evaluation/ testing /measurement comes into the picture, we are safe. We want you to demonstrate this outcome. So what is a hope, a theory, an expectation, becomes a demand. By evaluation, we are applying a criterion to value this performance and, of course, draw inferences about a person’s ability or qualities or whatever else. This objective to value the criterion is something that appears to me to be inescapable, but that is where we need to reflect.

This is very important in our country because we say we have an examination system. We have to go back to the history of examinations here. Right from the beginning, examinations have been external. The British left us with a system that they don’t have – at least not at the same level. I was looking through some early history of education and found that even in the universities of Madras, Bombay and Calcutta, the effective power of the examination in the early stages stayed with London. And of course, we see it now in our educational boards and in our affiliated universities.

A great deal of what we talk about in terms of teacher growth and the rest of it do not make any sense. College teachers in this country are teaching somebody else’s syllabus and trying to guess somebody else’s question paper. This is what a college teacher does during a career of 30 years. So we have academic staff colleges and we have teacher development, but this is the fundamental fact. The honest thing for a college teacher to do would be to get a guide book
and help a student pass the exam!

I had the privilege of working at IIT Kanpur and CIEFL, which are fully autonomous. Like in American universities, you set every question paper yourself, you mark it and type it yourself. But we have this external examination system that runs through our degrees. So paper setting is something that somebody does remote from the field of assessment.

With all good intentions, even from DPEP (District Primary Education Programme) times and this sort of thing, the idea of cluster-level, mandal-level, block-level paper setting is a good means of quality control. But it is not located where the teacher is. It is not located where the classroom is. That is another deep-set tradition we have which, now with internal assessment and school based assessment, we are moving away from. We have a long way to go.

But there is another factor that again goes back to our history, starting with the introduction of modern education in colonial times. That education was to prepare a small group of people to function as the lower levels of administration in the British Raj. It was for a very small number, which means that education was basically selective – examinations had this filtration factor, and examinations subsequently have always had this.

Long before the special entrance tests came, the IIT-JEE was the most prominent and the first one, and then the CAT for management school admission. Then various states brought in their tests – the EAMCET for engineering, agriculture and medicine and the state professional courses and all that. But prior to that, what was the matriculation exam? It sorted out those who could go further from those who couldn’t, like the now infamous 11+ examination of the British, which was introduced in 1944 to separate people – those who could go to Grammar School and those who couldn’t.

Certification for the purpose of some sort of categorisation is not bad in itself, if you have a qualifying test. So if you want to get into the Services Selection Board or the National Defence Academy and so on, you have to pass a certain level of medical fitness and other things. But that is a yes/no description of categorisation – not of ranking. The problem with ranking is that we are in a society where there is a scarcity. The truly savage selection ratios that we have – one out of a thousand is actually higher than the average that we have. That means, in the jargon that you are familiar with, we are making distinctions within the 99th percentile.

When I was in IIT a few years later, I used to write recommendation letters for students who, unfortunately, after studying engineering wanted to do
management in the US. And in the recommendation letters they would ask you, “Would you place the student in the top five per cent of comparable students? If not, would you place the student in the top ten per cent?” In our tradition, I see recommendation letters: “This is the most brilliant student who has ever lighted my classroom” and so on. Or, in the IIT if you get – I forget the numbers – 593 marks, you can get into Electrical Engineering in Bombay or Madras, which is prestigious. If you get 590, you can only get Mechanical engineering in Kharagpur!

The consequence is that every exam is seen as competitive. I have worked with teachers for over 30 years. I talk about classroom testing and I say to the teachers, how do you organise a class? Their main concern is that everybody must start at the same time, they should sit apart, they shouldn’t cheat... This is an ordinary class test, and we are talking about continuous assessment. We have to help teachers unlearn this idea. It does not have to be equal treatment. Equal treatment becomes important when you have a competitive outcome – because I can’t give you three marks more and I can’t give you five minutes more, etc. This again is something that runs through our system, which I think we have to overcome – the basic assumption that if we have a test, everybody has to test at the same time.

The challenge now is that I don’t think we can work within the system and change it. We have to find some ideas from outside, and I think they are there. What are some of the things that the NCF (National Curriculum Framework) gave us? It gave us a new definition, or a new conception of the knowledge or the learning to be gained.

The exam system traditionally follows the syllabus. The structure of the question paper and the structure of the syllabus have to be exactly the same – if the syllabus has four parts, so does the question paper, and weightage is based on that. In other words, we are operating with knowledge that is static, fixed, and therefore it is predictable – which is why guide books are so useful. This is what our assessment system, or evaluation system gets at – something that is knowledge and predictable.

The NCF talks about the child being a co-constructor of knowledge. I carefully avoid the word ‘constructivism’ because a lot of people get upset with it at various points. It talks about going beyond the textbook and relating it to life outside the school. What does this mean? That the knowledge to be gained is not already determined, not already spelt out, in the syllabus. If that is what we are trying to assess, then my trade – that of testing – can be of help in illuminating and clarifying that.
I have argued that what we call Continuous Comprehensive Assessment became possible only after NCF, or the re-thinking of NCF. The CCE was mentioned in 1986, in the national policy on education. But when we had fixed knowledge to be handed over as it was and to be reproduced as it was, where was the scope for Continuous Comprehensive Assessment? Unit test plus unit test plus unit test... adding up to the total was what was required. It was logically not possible to have continuous assessment of the flexible way we are talking of.

We also say that children learn at their own pace, that we have diversity, and want to value and promote it. Then we have a context of this process of learning where assessment will claim my specialisation – assessment adds something to pedagogy. I will just say this: any purposive, goal directed, autonomous activity, is actually moving in a somewhat unpredictable path. We have goals. But the whole definition of a goal, target or a destination is that I am not there now. This means that, having accepted something as a goal, we are saying that we would like to work to reach it. If that path is open-ended, then we need something called monitoring, or reflection, or analysis, to check that we are moving in the right direction. So if we say learning is open-ended, then learning won’t happen in the way we would like it to happen. We need to monitor it. I am using the word ‘monitor’ in the best sense of the term, as a way of a small cycle of feedback and so on.

This monitoring evaluation has to be autonomous, has to be local. This is really the problem in our country, in the education angle. We have to move to giving precedence and priority to the local. Continuous Comprehensive Assessment, even at the common sense level, requires this. There are no ifs and buts about it. Continuous assessment can only be done by a teacher on the fly, in the classroom.

We can come up to the gate of a school with our advice and our manuals. The rest we have to leave to the teacher if we want CCE to happen. If we want to do paper setting and make the teacher administrate in class, which we have always done, that will work very well. So the role of assessment, reflection and monitoring becomes useful to pedagogy only if it is kept autonomous. Which is why CCE has to be seen as an extension of the principle of internal assessment, but with a break.

Internal assessment, which said 15-20 marks internal and 80 marks external – I am a little more familiar with the university system – what does it mean? Even if we say that internal assessment can use other methods, can look at other qualities that the written final cannot, etc., the two things have to be
added. You can’t add apples and oranges. So this also has to become an orange – internal assessment also has to be according to a scale of high and low unit differentials.

A comprehensive assessment of multiple things cannot be something that can be added. It has to be an autonomous sector on its own. So this autonomy of assessment should be in the hands of the teacher, but of course with support. We need a curricular understanding, we need sourcebooks, materials and teacher orientation. But in the actual act, we have to let go, which will be something extremely new as far as the tradition of our country is concerned.

There was an exercise undertaken in the NCERT (National Council of Educational Research and Training) called ‘Sourcebook of Assessment’. In the first round it was so heavy, it ran into 800 pages. My colleagues in the Department of Elementary Education reduced it to a manageable 100 pages or so for different subject groups. It was initially prepared for trialling. At a workshop that UNICEF funded, ten states were identified and there was this huge operation of sending these out for trialling in large numbers of schools over a period of a few months. I remember saying then that this is the first time in our lives – in the history of India, as far as I know – where a resource which has so much of wisdom going into it is being taken to the teacher, not to implement but to tell us if it works.

That is my dream. I don’t think it really happened that way because a lot of the officials who came were used to getting teachers to implement. Now, there is a whole body of experience, but I don’t think that has been recorded. What were the things that a few thousand teachers in ten states said about the workability of the system? That is what we, as a system, need to learn from them. It is that commentary that is important.

If we are going to have assessment as a part of pedagogy in order to improve, what is it that assessment telling us, which we use in order to improve? This is not a part of our culture, our whole system, of all the work that we have done on education. When you talk about moving from the small to the large, you try it out in one taluka, then you try it out in two talukas, and then it goes vertically. There is very little literature that we have of a preliminary form of using – let’s say, objective tests, or group work in classes – which we can reflect on and then say, here is a more powerful version of it.

In CCE, we have to start with something that is manageable – not this 800-page multi-dimensional form that every teacher, including those who have been recently recruited and are yet to receive induction training, is supposed to be filling for every child, three to four times a year. We know it
doesn't work. Let us start with something that is manageable and gradually extend it – not only quantitatively, but by learning. This is what assessment is. This is what the tradition of assessment is, where you see what the change is that needs to be made, what is the mid-course correction that you might want. That has to be a very rich part of our discussion.

The basic tasks for measurement – for language, for EVS – we have those. But how can we improve them to make learning more meaningful, wholesome in nature, as envisaged by NCF? This is where I have some different perspectives about the value of what is called large-scale assessment. I will take external examinations and large-scale assessments in the same category because they are external. They belong to the managerial uses of assessment data – not the pedagogic uses. Pedagogic uses can only be for the teacher, or for people who are sitting down with a unit and trying to improve it by looking at answer scripts, by looking at what children say if you ask them. That is what curriculum development specialists do.

But that does not require 10,000 students. Five students of different levels of ability interacting with a unit is enough if it is going to be used for the improvement of the core pedagogic process, if you want to use it for a larger system – for deployment of teachers, teacher training, etc. But I make a distinction between pedagogic purposes and managerial purposes which are necessary. We have to certify students, select students, give some of them scholarships, put some of them into advanced classes – all this has to happen. I am not disputing that. But that is a managerial use of the technology of assessment.

For the pedagogic, we have to go back to what the dream of CCE is. The teacher can, as she goes along, observe certain children doing certain things on Monday, some other children on Tuesday, some of them while they are talking, some of them while they are working together, and gradually get a sense of where they are, how they are progressing and so on.

A last word about measurement. When you are looking at a child's response – even if it is an essay of 15 pages, 1500 words – I don't think you can make more than about four meaningful distinctions. I have fought the illusion that you can have 20 marks. I have worked with English teachers a great deal, and they know exactly what seven-and-a-half marks is. When you give seven marks, what are you saying? That you know exactly what eight marks is worth, you know exactly what six marks is worth and you are sure this merits seven marks?

There are many personality dimensions that have come into the CCE formats.
At the forum that the NCERT organises, every state has this and they are on a four-point scale, a five-point scale and so on. What are the things about children’s sensitivity that you can put on a five-point scale? What we do we see is maybe a broad high and low. So we have to forget a lot of the measurement.

We moved from the marks system to the grading system. But we keep going back to the marks system because again there is this delusion that if it’s there and we’ve observed it, we must assign a mark to it. We have to unlearn this. We have to move into what, in measurement, we call the nominal scale, because when we use numbers 1-2-3-4-5, they are like grid numbers or room numbers. One only means ‘not two’ – not ‘better than one’. If there is a ranking then, of course, a scaling has to be done. But we need to think about qualitative categories.

Even when you are doing measurement of human qualities, qualitative categories would fall into a mark of three or two before you give a grade of A or B to somebody. You are making a qualitative distinction. You are perceiving a qualitative difference, which is coded as a mark or grade. We have always talked about these things as happening indirectly. This is where we have to focus. As children are growing and developing and learning in the new context, what are the ways in which they are changing, and which of those changes do we want to capture? Once identified, for convenience we call them satisfactory or unsatisfactory.

The external tests, survey tests with a standardised measure, have this limitation. A standardised measure can rate every child if you are a part of an amorphous mass from which we can sample. That needs to be done, but we need to be very clear about what the purposes are for which it can be done. If a child in a particular school in a rural area or in a fancy school, at a certain stage does not know the answer to a question which comes, what does that tell us? If we use a standardised measure, would it tell us something about the child, the curriculum, or the teaching?

A great deal can be done with data – the survey data, the national assessment and other things that you and I are familiar with. But they have all gone into the managerial resources, and very little into curriculum pedagogies.

You will find two propositions, two premises that we have. One is, we are saying that if you give students this sort of experience, we believe that many of them will learn what they are supposed to learn. Conventional examinations work with that system – this is in the syllabus, we have reached March and the syllabus has been covered, and therefore it is fair to test. But we are also making the assumption that this experience has been delivered.
Our examination system is being blind. So children from schools where teachers were never posted in the first place also write the exam, and they are marked by the same standard. The content validity of the educational test comes from the fact that it matches the syllabus. This runs through our thinking too – that it is appropriate to give this test to a child at this point because it is there in the syllabus. It shouldn't happen. We need to keep asking: Has it happened? And further, we need to ask: Even if it did happen, are we sure that this is the learning that will take place? Now that we have granted unpredictability in learning, this whole business of assessment becomes very, very problematic.
Vijay: My interpretation is that the only organisation which is interpreting CCE seems to be CBSE. Is there someone else who is interpreting CCE in terms of taking it to the school? Is NCERT is looking at what is going on in schools through CBSE, etc?

Jacob: In 2003, NCERT produced Continuous Comprehensive Evaluation – A Teacher’s Handbook. But that is pre-NCF. That is exactly what CBSE has also picked up on. It is a format to be filled in. We are still back to reporting formats, not the observation coding. The recording has to be seen as something like a teacher’s diary, done in a style that the teacher can do. The diary is not a public document for somebody to inspect. We need to say that CCE has to be formed in a diary process. Then some parts of it are interpreted and put into the record. How often do we need this record? It doesn’t end.

Vijay: The RTE (Right to Education) rules of each state all talk about CCE or CCA. But the only document which seems to be available in the public domain is the CBSE, so everyone is going for that. The CBSE seems to be the interpreter of CCE in this country.

Jacob: Generally, it was a prestigious thing that many states, even prior to 2009 (when the RTE came into effect) had worked out systems based on the earlier documents. At the 2006 conference of NCERT, the TSG (Technical Support Group) was tabled. There were 12 states that said that CCE has been implemented – because the forms had been issued and the teachers had been told to comply. This is a part of our problem. The thing about CBSE is incredible! We have heard about formative assessment and summative assessment – it is a way of using data summatively and formatively. Here, the first terminal exam is called the first formative test. Where is the ‘formative’ in it?
**Vijay:** So is there a way of fighting CBSE? What I see in the country is that CBSE is ruling the roost because no one else is producing anything. That is the issue.

**Jacob:** We need to start a discussion about what teachers can do. This is not what a teacher should be told to do if we want RTE to work. Putting CCE into one of the clauses of RTE was done with good intentions. If you have assessment done through CCE, properly, sensitively, wholesomely, then learning will be promoted. Therefore, CCE is an important part of the Right to Education. But this is the formative function of CCE, and not the reporting or inspection function of CCE.

**Dinni:** I want to understand the context of where in all of this the student is placed. For example, when I finished my school or college education in the mid-90s, even if the assessment was on specific subjects, whether it was Physics, Chemistry or Mathematics, the whole context was that you knew that you would be clubbed under some subjects like PCM (Physics-Chemistry-Mathematics) or PCB (Physics-Chemistry-Biology). If you cleared PCM, you got into engineering or commerce. If you were good in PCB, it led to biology or medical. So even if the student was interested in a specific subject, the context was engineering and medical and so on. The good students got into engineering, the mediocre got into commerce and, at that time, the not so good performers got into arts. I don’t think it has changed even now.

My question is about the context of the whole system in which the assessment is happening. And the second thing is about the outcome of assessment. Even if you do an assessment and find that there are students who are not good in the class, what do you do with them? Is there going to be a different way of approaching them?

**Jacob:** The National Knowledge Commission’s target was to get 15 per cent of the relevant age group into higher education. Let’s say we succeed with 20 per cent. Eighty per cent are not going to university. And RTE is about those children as well. Why should they face that matriculation exam which has quadratic equations, atomic theory and so on if they are never going to go to university? They need a relevant education, for which we can have a different test which does not have to be on the 21st or the 22nd of March for ten lakh students, exactly at the same time in every state.

So the new vision of knowledge and CCE help us to develop the skills of those who are going to go into hotel management or wherever. There are going to be thousands of people working as bus conductors, manning our level crossings, and the rest of it. Why should we say that they failed their matriculation,
or that they are high school dropouts? They should get a relevant education. This is moving closer to the American model where every school gives its own diploma. If you want to go to a prestigious university, you write the College Board exam. That exam is not what determines the previous part of the syllabus.

So the fact that they cannot get into engineering or medicine, it is a small middle-class that is concerned about that. Most others want English-medium schools, prestigious jobs and so on. There are thousands of opportunities available for students now, which have never been taken seriously because there is a certain middle class that wants high standards in mathematics, biology and so on.

**Anjali:** I feel that CBSE has given a guideline, but they have not specified that you have to fill in those forms. So you can come up with your own guidelines, keep whatever details you want to keep about a child. You work on the performance of the child as you wish, at your level, in the formative test. Of course, there is some confusion because they have these summative tests which are typical.

**Jacob:** There is a certain amount of flexibility. But you have to look at when you have a large scale system where the same orders go to all schools – to Kendriya Vidyalayas, which Krishna Kumar referred to as military operations, which are the backbone of the CBSE system. They go as orders. This is part of the problem. We need to work to help teachers say that this is a guideline, not a requirement. But when you have to fill in those forms and submit them, that freedom is greatly constrained. The thing is that we should have started with something simpler and then developed the big ten-page handout.

**Rod Hemsell:** I am amazed to say that I have agreed with everything. I would just like to embellish a couple of points that you made. The last one that you made in your presentation was regarding the question: what can teachers do and how can the qualitative levels of performance be identified in a substantive way? Because this cannot really be done with numbers. It’s not a quantitative but qualitative evaluation that takes place during the performance of the skill. So a performative assessment takes place while the skill is being formed, and therefore the teacher needs to have some idea about what the scope progress can show in the process of learning.

In my article called NCF and Integral Education, in the last few pages are some possible rubrics for specifying the vertical or quantitative scale of
development of any particular skill. This concept of rubric assessment follows upon the concept of CCE in a very systematic way, and I think it hasn’t come clearly into focus in our context here. But for quite some time, in the USA, we have been working on this type of assessment, so there are a few examples there.

The other comment I wanted to make is that in your general description of the problem of assessment, you mentioned that we have this historic tendency to try to capture a moment in the development of the enduring personality, and believe that that is going to be the definitive evaluation of that person’s skill. Then, whether or not the management hierarchy accepts that person or not is based upon that one moment which was assessed with a script. And how fallacious that whole concept is, I agree with completely.

I just wanted to point out that the concept of enduring personality is an epistemological concept which comes from Bergson. What he really means is that there are no definitive moments in the enduring personality. The enduring personality is, in fact, changing always, and it is never possible to capture that definitively. It is only possible to evaluate it and recognise it, and affirm it as it moves on in its yet-to-be-realised possibilities.

So here is exactly where a formative assessment enters the picture and interrupts that old way of thinking – and it really is a way of thinking. It is an epistemological habit that we have of believing that things endure, and if we put a label on them, they are not going to change because then we are only concerned with the label. We are no more concerned with what it is that is actually developing there. How do we get teachers to look at that moving process and realise that that’s really their business – to enhance the moving process of formation of the individual? So I agree with you completely – that in the end, it comes down to the site, and the teacher and the student, and how they together can do the job of learning.

**Devika:** There was this question raised about whether there is any other document that gives a guideline. You were mentioning how you really use the Continuous Comprehensive Evaluation in schools. There is an underlying assumption there that the teacher will be using her own understanding of whatever is happening in the class, or with the child, to arrive at this decision of what she should be doing once she sees those results. So if it is a performance assessment, a qualitative assessment, ultimately it boils down to the teacher’s diagnosis of whatever she sees. And if the spirit of this assessment is one where she is going to be giving an input in terms of ‘I want to see how well my child is learning’, only
then will she be able to give that kind of an input.

All textbooks today are saying ‘CCE compliant’. By saying that what they mean is that they have a section on formative assessment, and they have another on summative assessment, all of which mean the same thing to the teacher. A very simple example: if you say subtract 11 from 25 and the child subtracts 16 from 25 and gives you the answer as 11, as many children will do – what is the teacher then going to do at this stage? Is she going to give a zero because the child doesn’t know subtraction at this stage, or is she going to say, “What is it that the child hasn’t understood here? Is it subtraction? I think the child knows subtraction because he knows that I must take away the smaller number from the larger number, so I have done 6 minus 5 and I have got 1. Or is it the place value that the child hasn’t understood? Therefore, my diagnosis is that I need to work with the place values.”

I think this is the critical thing. No matter who gives you the guideline, what is the teacher’s ability to diagnose where the problem lies and how she can move forward? I guess in this, the rubric will help, like you were just saying. And how authentic is that rubric? How well does it help the teacher to move forward in her diagnosis of that particular tool that she has just got?

Jacob: Talking about children’s responses, there is something I read recently, and I will share that with you. This is a student’s answer in Mathematics. There is a triangle ABC and AB is the hypotenuse X. It says, find X. So the student, in his answer, draws an arrow and says, “There it is!”

Ruchika: I think there is a comfort in schools that CBSE has defined the rules, because we have all grown up with one education system. At this point, for a lot of schools, it is just like there is something new that has come up and they need to grapple with it. At a lot of times, teachers feel ill-equipped in terms of this being a new concept. I have never seen it or practised it myself, and I have never seen this working. So I guess when it comes to autonomy to the teachers, there has to be some sort of teachers’ training, as we are all doing. I think there has to be some sort of work with the school as an administrative unit to see that it can take it on autonomously.

At this point, I think parents also want numbers and grading, because a lot of parents are used to it and they get a little nervous that the school is not doing this – and a lot of schools cater to parents. So as a system, maybe school has to be revamped – for the lack of any other word – to bring in a new system of learning. How we interpret learning as a society has to evolve. And it has to
keep everyone on the same page – the parents, the students, the teachers, the administration, the board and all of that.

Neha: I hear you use the term ‘assessment’ though it is called ‘evaluation’. Is there a difference? Where does the child feature? Is there a role that that young person also has in this, or is it just something that is a teacher’s diagnosis? Does the child also have a chance to understand, articulate, and would that not be, in my understanding, a part of that whole formative process for the child to be also able to take part in it?

Jacob: The answer is a big YES. If I say that in CCE they are looking at the child as the co-constructor of knowledge and so on, they are saying that a child’s self assessment or peer assessment, all this becomes valuable, which is not possible if you have to cover portions and check that everyone’s learnt it. So within this new space, these things we talked about – peer evaluation, peer assessment and self assessment – also have a place, but it has to be worked in with some understanding so that it is manageable and doesn’t become a burden. CCE is a potential resource. It must remain a resource and not a burden, which is what the old testing was. And that is what we have to guard against.

Venu: It occurs to me that without knowing the term, CFL (Centre For Learning) is a school that seems to have done CCE without realising it, for the last two decades. Here is a very brief excerpt from a report – an annual report given to a parent about 11th Standard students in Mathematics and Statistics. This is a summary report that the teacher writes. This is a subject which is supposed to be and can be assessed only quantitatively. There is no quantitative measurement that is used. It says:

The students were excellent in classroom participation but found drill work and problem solving to be a challenge. When they persisted, it was easy for them to accept the need for the drill work, where simple arithmetic and algebraic errors crept in for lack of attention in attempting the solution.

About student A, the teacher writes:

A has been an easy and intelligent presence in class. He has frequently contributed interesting interpretations of concepts and approaches problem solving in his own inimitable way. He has also always submitted assignments on time, usually complete, but he has to be reminded to work out solutions completely. Shortcuts are acceptable mentally, but not on paper.

I will also quickly read about B. A particular thing about B is that she is probably
the only student we have had who is a national football player.

Academically, B has become regular in her work. She has hit a good rhythm and now knows what it takes to write an essay and incorporate feedback into it. There are some gaps in comprehension and she will have to work hard in order to remember material. But importantly, she is getting the feel of how to approach academic work. In the GS program, she was quite involved in the field visits. While I realise that football is B’s near-term future, I also feel that in her life, she needs some engagement with academic ideas – conceptual issues to keep that thinking part of her alive. Some different kind of light shines in her when she is involved in thinking through ideas in Psychology. So, hopefully, that also lies in her future.

What I want to highlight is that we can vouch that such a Continuous Comprehensive Evaluation of the whole child in a qualitative manner, which directly contributes to pedagogy, is possible. The question really is what kind of a school system and what kind of a profile of competence of the teacher, and what kind of acceptability to the environment around will be required to approximate as much as possible to this kind of goal?

Jacob: I fully agree with you. I think there is a lot of work being done on the ground. We need to find ways of sharing it and building a certain degree of flexibility. CBSE should shout that there is flexibility, if there is flexibility, and promote it.

Obviously, qualitative reports do much more than the old marks card which simply said that A is better than B by three marks or four marks and there was nothing else in it. So we also have to create that culture of evaluation.

Somewhere, the greater resources that a student has in terms of understanding, for example, concepts in Biology also have to be captured. So maybe we need to have something like a summative test also, which gives you that additional picture. We have already had that in the past. The qualitative reports keep talking very much about the person. It seems very much like a character certificate – which is very important. I think we need to draw the attention to that rather than things like ‘Conduct: Good’ in a little slot.

But how does the child get the sense that maybe he or she should go into a science-oriented career – not only the IIT, but something which has to do with the physical world. Maybe go into something of that sort, as opposed to working with people – counselling, nursing, sales work… That should also emerge. We need to keep both these things in mind. We need to move from the syllabus, which passes out knowledge and the rest of it, to the process of learning. At this point, a strong corrective is needed.
Hriday Kant Dewan (Hardy): I think the problem is that unless we look at the multiple purposes that education serves, we can’t talk about and we can’t do away with multiple ways of assessment. In that confusion, we often talk about very limited purposes of education which very few people have in their minds, and we want to make a system for the entire stakeholders, which is very different. I don’t understand about this whole business of continuous and comprehensive assessment or evaluation. What is the difference? Where does the child come in? What is the construction of knowledge?

Education – when you talk about formal school education – is different from what the child does on a playfield, and what the child does outside – what she does normally, where she is also learning, where she is also assessed, and where she is also continuously given feedback. So is that what we are talking about? Are we saying that this is what is Continuous Comprehensive Assessment? Are we talking about the same kind of feedback?

So I think that, somehow, we need to at least address the question we are talking about in a formal system where there have to be certain goals. There have to be certain purposes, which are perhaps even misaligned with the purposes that the community and the child normally have in a family. I think it is important to recognise that because the whole process of the NCF and before that, all the curricular documents that we made, have been to transform the Indian society’s mindset from one side to the other side.

To say that there is somebody – we – who wants to do something, is appropriating a role which has to be played somewhere. Are we the lawmakers? Are we aligning ourselves as the Members of Parliament? Then we would think like that. Are we the NCERT professors? Then we have to get into the issues and try and understand what their constraints are. What are their limitations, what are their pressures? Are we the head principals of government schools or the Kendriya Vidyalayas? Are we the teachers of those schools? What are the pressures on the Commissioner of Education? Without that, discussion on assessment and how we can radically transform assessment seems to me to be thinking about an ideal which is already well understood ideally.

Since we are working with schools and we are working with institutions like ICSE or CBSE, the point to me that is important is what are the constraints under which they operate? In order to have a negotiation space with the parents, teachers need to have something that has some kind of acceptability and authority, which does not make them answerable to all kinds of questions which the parents will ask. We need to understand this. Therefore, saying that teachers should be at the deciding place requires not just equipment for the teacher, but also a certain political and social system. That is something that we forget when
we talk about idealised assessment.

**Sumita:** What sets apart CCE from the traditional system is that it actually gives autonomy to the teachers, which sets it a level apart from the traditional system. On the practical plane, what is defeating CCE in working in schools is the sheer numbers. A teacher is actually supposed to be continuously and comprehensively evaluating 60-odd students every day. A lot of it comes through instincts and overall impressions. Is there anything we can give to the teacher in the form of training or a form of resource or a tool to sharpen those reflexes?

**Jacob:** I echo partly what Hardy said a few minutes ago. We have to put this in terms of a larger system. Why do we want CCE? I would say it is only if you feel it is going to enhance pedagogy – that assessment is a resource that enhances pedagogy – then we should have more of it. And I understand continuous as something different from what we had – terminal exams, monthly exams, unit tests and weekly tests. It was not daily tests. Continuous is something different because it is more flexible. Everybody does not have to be tested at the same time. This is what makes it continuous. If not, we can have a unit test every morning and every afternoon. That is what continuous becomes. To me, the issue is: what does continuous mean? We have to understand a great deal before we can prepare training packages.

**Sharad Behar:** Interestingly, you started by naming the villain and sort of avoiding it, saying it ultimately comes from the behaviouristic model. For almost four decades, I have been trying to explore what I call liberating education – policies, practices and systems, could lead to liberating education. And then I found that maybe the behaviourism that you are talking about and how it permeates the whole system is, to some extent, responsible for stifling education rather than liberating it. In that case, what are the alternatives? There, certification has become a major purpose of the education system. And that is how many of the ills have come in.

When you were talking about psychological testing and educational assessment, you raised the issue of reliability. But you left validity. Where do you place validity, which I consider more important than reliability?

This whole word ‘comprehensive’, to me, has been a rhetoric rather than reality, because it is never clear. I always say that words like ‘all-round development of personality’ and ‘comprehensive assessment’ – all these words are confusing. They conceal more than they reveal. What are those elements of comprehensiveness you are looking at?
And finally, if CCE has to be teacher-centric – and it has to be, there is no option – how do you see the teacher-student ratio changing in that context?

**Jacob:** I will treat these as observations to be discussed and respond only to one – validity. Once upon a time we talked about the validity of a test. But I think for the last 20 years, we have been talking about the validity of the uses to which test information is put. So the test can’t be more or less valid, but what we see is that the test yields information. What we do with that information, the validity lies there. So we come back to the purposes of education and the purposes for which assessment is carried out.
School Experiences in Assessment – Kalikayatna: A Learning Initiative in Government Schools

Gowri B S

Gowri B S has been a part of the core team at Prajayatna and its learning initiative in schools, Kalikayatna. Prajayatna is a development initiative working to improve quality of education in public schools. Kalikayatna, a learning initiative conceptualized by Prajayatna, evolved as a response to the schooling system that encouraged learning answers rather than exploring questions, memorization in contrast to thinking critically, only reading instead of doing and competing rather than collaborating. Gowri speaks about the design principles of the Kalikayatna initiative in government schools with special focus on their approach to assessment and assessment practices.
Prajayatna works in 22 districts in Karnataka and five districts in Andhra Pradesh, and recently entered UP and Rajasthan as well. It has two major agendas – governance and learning. By governance we mean work from the grassroots level, trying to empower the parents and so on. For example, when SDMCs (School Development and Monitoring Committees) are set up, there is always the issue of how empowered parents are to say what they expect from the school. It is very important to create that kind of awareness at the grassroots level before we envisage a learning programme.

The second programme is, once the community is mobilised to send their children to school, what should their expectation be from the school? We collect a complete set of data about the school and the village, and then call department officials, people from the community and teachers for a discussion. We make a presentation on what the status is, and discuss how we can together find solutions to ensure that the schools deliver what all of us want. The learning programme takes shape when the community is aware about these things and has articulated its desires.

This is a brief introduction to what Prajayatna is currently doing. I would like to get back to the point of what exactly we do in the classroom in terms of assessment.

Kalikayatna - A Quality Improvement Initiative – of Sarva Shikshana Abhiyan–Karnataka and Prajayatna

In a time of drastic change,
It is the learner who inherits the future;
The learned find themselves equipped
To live in a world that no longer exists

Focussing on learning how to learn
We started with our own NFE (Non-formal Education) centres, then went on to vocational training institutes and teacher training modules. All these were finally conceptualised as Kalikayatna. ‘Kalika’, as most Kannadigas would know, means learning, and ‘yatna’ is initiative. So this is a learning initiative. We give so much importance to kalika is because that is what a school is supposed to be doing – encouraging children to learn and facilitating it.

We begin by redefining what learning is. For us, learning is equal to capability building. There are any number of capabilities, and if a process is helping a child build on them, that is learning. In that context, we believe in this quotation: 'In a time of drastic change, it is the learner who inherits the future. The learned find themselves equipped to live in a world that no longer exists.'

That leads us to the question, what do we actually want from education? Because it is so dynamic – everything. Yesterday there was something called a pager. Today there is a mobile. Tomorrow we don’t know what new tool will be in our hands. So we don’t know if ‘fixed knowledge’ – the term used by Jim Sir (Jacob Tharu) – is what we are looking at delivering through school. Do we want little libraries of different subjects stored in our minds in the form of fixed knowledge, or do we want to enhance capabilities and create lifelong learners?

Kalikayatna is an approach to learning.

It emphasizes:

- The exploration of questions more than learning of answers
- Critical thought in contrast to memory
- Understanding in context rather than as bits of information
- ‘Doing’ in lieu of only reading
- Collaboration rather than competition
- Sharing of information with each other
Kalikayatna is an approach to learning that emphasises exploration:

- The exploration of questions more than learning of answers
- Critical thought in contrast to memory
- Understanding in context rather than as bits of information

There are certain important things that the whole approach emphasises. Once we know what our focal point is, we move on to understanding what the principles are that govern the systems we are trying to create in the classroom. One in which we firmly believe is that children cannot be taught – we can only facilitate their learning. And different children learn differently. Holistic learning is not linear. I want to focus on this third point. We make a differentiation here because learning per se is when an entire capability is seen in a child. We look at the whole curriculum as a set of procedural skills. If you are doing a mathematical problem step by step, or learning the mechanics of writing or reading, we consider these procedural skills. Then there is a set of processing skills. The same reading, when there is comprehension and interpretation, is processed differently in our mind. So we have procedural skills which are different from process skills.

Learning and assessment are not to be seen as separate entities. Assessment isn’t something that can be done externally, and it can’t be done at a different point in time. Just as you may be now assessing what I am saying, how I am saying it, and how relevant it is. It has to happen simultaneously. That is an important principle on which we have built our systems.

Learning is not to create homogenised individuals but to enhance innate capabilities. It can happen anywhere, anytime – school can only support it. The NCF (National Curriculum Framework) reiterates the same point, that there is no connection between real life and school education. We have a very restricted view, thinking that once we send the child to school he will learn. But a lot of the learning experience happens outside the school too, and we believe in giving value to that. All learning happens through experience and reflection. So reflection is an inbuilt process in the everyday classroom situation in Kalikayatna.

There is also a value to every type of assessment. What is the purpose for which we are doing it? Conventional testing has a particular purpose, but it definitely will not reflect learning in terms of the child’s entire capability. Children perform better and more confidently when they are learning in an atmosphere of respect and freedom. I am sure a school like CFL (Centre For Learning) will vouch for that, and Auroville too. I have been to schools in
Pondicherry, and the kind of rapport between a teacher and a student in an Auroville institution is simply amazing. Schools that have worked towards that know that it is so important – true learning. You can help a child develop his abilities only if he feels free and there is approachability. This is a very important principle for us.

It is the teacher who is actually working with the child directly. So the mass training of teachers on predetermined topics might appear to be informative in the short term, but is actually disempowering and becomes an impediment to the teacher in the long run. If a teacher is left to herself, I think a connection develops with the students – like a mother and a child. The mother knows so many aspects about the child which probably we don’t test. So too the teacher. But are those being valued?

Somewhere, the entire training process – the cascading model of training – is disempowering. Teachers in CBSE (Central Board of Secondary Education) schools are actually confused about CCE (Continuous and Comprehensive Evaluation). Why? Because we try to cascade the whole model through a one- or two-day training.

Decentralised training can respond better to contextual realities. It is more interactive as it happens in smaller units and can respond to needs at a faster pace. This has been our belief and validated through our experience with Kalikayatna, because all our training sessions happen at the cluster level. One LPS (Lower Primary School) is counted as one unit, one HPS (Higher Primary School) is counted as two units, and 18 units together form one cluster under the DPEP (District Primary Education Programme). So at the cluster level there are some 15-18 schools – sometimes 20, depending on population. And there are around 30 to 35 teachers handling classes 1-3, and another 30-35 handling classes 4 and 5. It is a manageable number when you look at the whole system.

Having explained the basic principles of Kalikayatna, I want to clarify what it is not. It is not a technique or methodology like the Montessori method. It is just an approach which has certain beliefs and certain principles that govern it, but which supports children in reaching their outcome. It is not about evaluating students based on norms or standards, but profiling capabilities. CCE has come now, but from the time we began Kalikayatna we have been seeing the child as a complete individual – very comprehensively. What are his interests, his inclinations? What are the things that he does faster and does repeatedly? We want to profile what the child is good at.

It does not restrict content to textbooks or fixed information but allows for
constructing knowledge. In fact, at the CRC (Cluster Resource Centre) level, we have developed a Cluster Resource Directory. If there is a flour mill in the village, or if somebody weaves or tends cows at home, it is in that directory. Whenever it is appropriate to the lesson, the teacher takes the children there for an actual experience to share in the class.

This is not a top down system of standardising the curriculum, teacher training or classroom processes, but of developing structures that promote capabilities and relevance for everyone involved. We try to work with designing effective classrooms through which capabilities are built. Then we look at empowering teachers by having monthly collectives where, in the cluster, they decide what they are going to teach that month and what learning resources can be used. They brainstorm about various activities to facilitate those concepts and prepare learning material – worksheets, stories, songs...

Going on to assessment – it is very connected with the learning process, an integral and ongoing part of it. Treating it as a separate or summative component does not provide the students true feedback about their learning. Assessment should be identified as a learning enabler. It has to enhance the learning of the student, not be used to identify weaknesses.

Testing basically focuses on what a child has delivered according to the syllabus, and what he doesn’t know from what has been taught. It doesn’t say

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**The 3 key questions**

- What is to be assessed?
- How should it be assessed? What are the primary tools?
- How should the feedback be communicated?
anything about the child or his own capabilities. The assessment has to be seamless, not compartmentalised into scholastic and co-scholastic. This idea of separating is there even in CCE. When you look at the integrated approach, all abilities are within that. If there is a lesson which requires some kinaesthetic experience, the activities will be designed like that.

So what are the three key questions? What is to be assessed? How should it be assessed, what are the primary tools? And how should the feedback be communicated? The framework should support in identifying the child’s natural abilities and interests. This should include the ability to create, evaluate.

It is not just what Benjamin Bloom gave as a list of higher order thinking skills. There are a lot of abilities, not just the ones listed here. Even to reach CFL, I need a particular set of capabilities. If I don’t know the route, I should know how to ask. I must be able to understand what is left, straight and right. There are so many sub-skills involved, including learning tools of reading, writing and computation.

So we are not saying that these things are not important. They have their place. But it makes sense when you look at reading in the context of where it is being applied, rather than covering the alphabet in Class One. The syllabus says 1,500 words for Classes 1 and 2, 1,800 Words for Class 3. You have a list of words which the children have to pick up at the end of a particular class. How should it be assessed? It should be individualised, non-cumulative, integrated, and it should be ongoing and formative.

Our experience with Kalikayatna says is that it is not really testing by a teacher but how the students interact with a task that makes the assessment meaningful. That is very critical for the entire process. So when we say assessment is happening, we need to ask ourselves certain things.

The first is creativity. Are students creating or are they just repeating what someone has said? Are they really constructing something on their own? Are they being given credit for presenting something other than what is described?

The second is collaboration. Have they spent some time working with others to formulate their thoughts, brainstorm and seek feedback from peers?

Third, is there critical thinking? Are the students doing more work than the teacher in seeking out the information and problem solving? In one class the Science teacher asked a question – a very relevant and pertinent question – and immediately gave the answer. She did not even give the children time to process the information and try to make the connections.
Does assessment emphasise the need to communicate the content well? Is there writing involved, as well as other modalities? Not everyone can express themselves well through writing, so value must be given if a child has a different method of presenting his learning. If asked to teach the content to other students, what methods will the child use to communicate the information and help embed it more deeply?

This is meaningful assessment for us and we have designed the entire process like this. To assess, we collect data on various aspects. We maintain a participation record of the learner in all the activities, and we try to find a pattern in the responses of the child.

Collection of data is actually not a very cumbersome process. In the DPEP experience, when calendars were put up the children would go and fill it themselves. But finding the pattern in responses is very important. In different situations, and over a number of days, what has been the child’s pattern of the response? You have to identify subject-wise skill movement, what a child can do independently and the factors that are inhibiting the learner, simplify and break a task into steps so as to enable the learner to set his or her own goal, and provide individualised feedback to enable the learner experience – a sense of achievement. For us, assessment is not to say that you don’t know something. It means, you already know this, now you move on to the next step.

One of the tools we have is the ongoing portfolio – a box file which has everything that a child does in the class. And we were talking of huge numbers. Most of the schools that we work with have a strength of around 60, some less, but on an average 45 students. You don’t have to look at a child’s work every day. Even if you look at five children per day through the semester, you have enough time to look at every file, interact with the child and write remarks. We are not looking at a teacher writing remarks on every sheet of the portfolio – not every page will have a teacher’s correction. Sometimes even a peer may have written a remark.

Like yesterday, when we had some guests visiting our school, there was an oral feedback session where a child made a presentation and there was spontaneous peer response. For example, “You are not loud enough to be heard by everybody.” Those things immediately get rectified.

Concept maps and other activity worksheets are filed in the portfolio, and we have a teacher observation book. Using these two main tools, we create the profile of the child. In the observation diary – a printed book that we have prepared for the teacher – one sheet is assigned to every child. It has a
list of things, process skills which cannot be observed through the portfolio. Writing and doing mathematical sums are procedural skills that can definitely be assessed when you look at the portfolio. But how did he read? What are his spoken abilities, his communication skills? What is his attitude towards his peers? How is his behaviour when working in a group? Or how does he respond to the teacher? For these things, which we consider processing skills, there is the observation diary.

But how do you actually use that gut feeling of the teacher, her own observations about the child – how do you record that? We tell the teacher to do a descriptive note based on her observation on at least five to seven children per week, covering all the students over a month. Every day she has to just tick against it, so she can recall what happened during the week, why she had ticked it, and then give a description of that.

Using these tools, we have the learner profile or what traditionally we call the progress report. There are four things we report about a child – procedural skills, process skills, attitudes and areas of interest. This is updated on a trimester basis and teachers draw from ongoing portfolios to identify learning patterns and record them.

We also have a paper-pencil test. But this is not administered as “on 22 March, all of you will have an English test”. In our Kalikayatna classrooms, you will find different kinds of processes. We have a whole group process, and a learner group process which is working in smaller groups. Then we have individual practice time, where they practise their procedural skills. During these processes, it is easy to find out which child is ready for testing on a particular skill. Every month the teacher decides to deal with six-seven concepts, and whenever during the month she feels that a child is ready, she administers the test to that particular child during individual practice time. And that will also be a part of the child’s portfolio.

Using these paper-pencil tests and regular work, we report on where the child is – we track the child’s movement in a particular skill. Information is also drawn from the teacher’s observation book. That’s what we call the learner profile or progress card.

One of the things we realised when we tried to copy the Rishi Valley model at the state level was that every activity is not suitable in every context. So we try to match the local context and the kind of concept – the nature of the subject or the content – that has to be learnt by the child, and what capabilities have to be built in the student. The activity we choose must be relevant and match these three things.
We believe learning happens

- through exposure and experiences
- by forming links and networks
- by facing challenges
- by allowing for failures
- through repetition and spacing
- when new information is made relevant through analogy based on prior knowledge or experience
- when new information is just a level above what the child knows
- when a child is actively engaged in a task
- through memory

These points were arrived at not through any academic research but by teachers at the end of three years of observation in the classroom. Since Kalikayatna is in the first phase, Class 1 to 5, the entire focus is how to help a child learn. And this is how learning happens – it is like a discovery made by the teacher.

What is the nature of learning? It is a natural and active process. It happens automatically, what we call subconscious learning. Whether you want to or not, if you are in that environment, you learn. It is something that a teacher is now able to recognise and reflect upon. That, for us, is important. It is not just a piece of academic information that I am sharing with you. I feel very good to say that these are things that teachers were able to discover by themselves.

It also depends on the nature of the learner. Our teachers are able to say what works for a child and what doesn’t. It depends on the child, and on the nature of the subject. We learn by experiencing something, by reflecting, by doing, by making connections, by observing and talking about it. Because we understand that this is how learning happens, we design the classroom in multiple ways.

While all this is very broad based and all these things may be happening, how do you create evidence of learning? Somewhere, we have to showcase at least some aspects to the community and other stakeholders. So for Level One and Level Two in Kalikayatna, we have three-four main aspects. One is the integrated curriculum. We don’t have subjects. We use the same government syllabus to cull out concepts from all subjects, make a list of 65-80, and divide those between Class 1, 2 and 3. If you review the textbooks of Classes 1, 2 and 3, you will see that many of the concepts are repeated in Class 2 and Class 3.
This is Level One, which has concepts that are very immediate to the child – which can be learnt from the immediate environment. Level Two concepts are in the syllabus for Classes 4 and 5, and take the child away from the immediate environment. Like, in Level One he may learn about his village, and move on to state and country in Level Two. We are not talking about the child’s level, we are looking at what content to place in front of the child.

For evidence of learning for Level One there could be a drawing of a concept, because in Classes 1, 2 and 3 not all children may actually know how to write or read. So they express ideas through a picture or drawing, and then label it. In the Kalikayatna context, when we say we have 65-80 concepts, there are three things by which we can say that a child knows a concept. The first is, for example, to ask, what is this? This is a mike. Labelling is the very basic level, to know what something is called.

Second, what are the characteristics of this mike? What is it made of? What do you think it costs? What is it used for? There are certain basic characteristics of a mike. You can’t call a bottle a mike. So there must be some very concrete and specific things which make us give that particular label.

The third aspect is, how you make a link? What is a collar mike and what is a hand mike? What is a smartphone and an ordinary phone? What is a land line? It is about making connections. Any concept can be linked in various ways to things that are related to it and things that are not. That part of concept understanding comes at the third level.

There is no fixed level to achieve, as long as a child is able to make a connection. I love this example, so I will share it with you. A teacher was doing verbs – not calling it verbs, but through different actions of human beings. She was explaining swimming, and said, “Now you tell me something that you have seen swimming.” One child responded, “A poori swims!”

That understanding of a concept, the link that the child made, is very critical for us. So it is not that there are X number of lines that the child has to reproduce to show he knows this concept. Does he have the capability to make a comparison and make a differentiation? That’s all we want to see.

There is also a worksheet on concept understanding and procedural skills. That is where a teacher may need support, for some teachers are able to design their own worksheets, some can’t. We tell them they can use any resource. The Akshara Foundation has learning cards – the Nali Kali (an education reform initiative in Karnataka) cards – and many private publishers have brought out beautiful books. We buy them for each cluster. The Cluster Resource Centre has a library which we ensure has all these basic things. So when they come
for the collective meeting and are preparing material, they can pick any exercise from any resource they want to use.

Once, in a school we visited, we saw that while explaining what a dweepa (island) is, what a peninsula is, and things like that, the teacher gave a Class 8 book to Class 4 and 5 and said they could refer to it. We say, any textbook can be used appropriately in the context that is required.

Then we have reading cards which the teacher prepares based on what the child has shared. The teacher has a record of certain things a child has written or presented in the whole group time, and she makes that into a reading card. That is put in the child’s portfolio as evidence of learning. There are practice worksheets and paper-and-pencil assessment sheets, but these are not assessed at one point of time or on the same day for all the children. There are also concept mappings to show how they make links, pictorial representations, and graphic organisers for information gathered.

Yesterday our guests were shown some information the children had gathered – how many people there are in their village, how many men, how many women, how many men are literate, how many women are literate. It doesn’t matter whether the information is right or wrong, but that the child was involved in the process of collecting data and preparing a graph to represent it. That is enough for us. We have procedural skills worksheets and practice worksheets. Basically, what we are trying to say is that if you want elephants to grow, you don’t weigh the elephants – you feed them.

I read somewhere that the business of school is to help the child learn and not to do evaluation. Society should say what kind of products we create at school. But most of the time teachers are busy in the act of testing. In certain schools, in the 120 or so nett days of teaching, tests go on for a week. Before the testing period, there is the revision time. And after the test is over, the teacher is busy correcting giving marks. So there is very little time left for teaching, for the child and the teacher to really engage in learning tasks. We should give more opportunities to learn – the whole focus should be that. While the child is engaged in that process we should observe the capabilities of the child.

You are most welcome to visit Kalikayatna classes any time. We are not saying that you will see a perfect class every time, because we believe that a teacher must be given space. On a particular day, the teacher may not be really enthused to do active teaching. But we have been working with government schools from 2003, and it is really interesting to look at the kind of things coming from both teachers and students.
Rohit Dhankar: I very strongly agree with you that assessment is a part of pedagogy. Sometimes I feel that we should stop talking of assessment and should talk of pedagogy. We should note that pedagogy is not a set of activities. Necessarily, the concept of pedagogy involves achievement. So make that achievement as a part of the concept of pedagogy and talk of that rather than inventing more and more new evil methods of assessment.

It was a very, very sensitive portrayal of a school – one should appreciate that. But I am confused about several small things. I didn’t understand this notion of capability. For example, procedural skills and process skills. Is long division a procedural skill or a process skill? Reading a text or a poem to a class and then giving an interpretation – is it a process skill or a procedural skill? And in whatever class this goes, why does it go there? Where is the place for understanding, knowledge, making conceptual connections, etc.? Is it procedural or process? Just by saying process skill, do you take the whole gamut of understanding and various kinds of concepts and conceptual structures? Or are they hiding somewhere under the carpet? I think it would help if you can give an example of how you assess the creativity of a child in answering or responding to a task. How do you assess their criticality or critical thinking? Could there be some examples of that?

I also didn’t understand very well this idea of everything being integrated. For example, I believe school is integrated in terms of education being an integrated concept. So maybe the child has experienced things in an integrated manner. Learning is connecting in different ways. Some concepts connect with another set of concepts more closely than to others. For example, 4 or 5 connect more closely with, say, 6 or 9, and plus and minus etc, and less closely to Akbar and Humayun and Chandragupta Maurya and the Himalayas. So what is wrong if concepts connect more strongly and they make various kinds of spheres of integrated knowledge?
Gowri BS: I don't see any difference of opinion at all. I agree with what you said. Whatever connection a child makes, it shows whether a child can actually make a connection by himself, without being pushed by the teacher to say something. Is he able to make his own connections? That's what we are looking at.

As I said, from Class 1-5, the fundamental thing that we are looking at is how to learn. To help a child learn to learn – that is all. So for us, content is not important but what he experiences things as a whole. Like, if he looks at a tree and tries to say what connections he makes about it. That is important for us.

About process skill and procedural skill, we had to use some term to break the conditioning about writing the alphabet, writing numbers, doing addition-subtraction. Put a brake on that conditioning, that's all. If there is a better way to present that, we are most open to that. But in our understanding, this bottle is a bottle by itself. It is integrated. There is Science, there is Maths, there is language – everything. So to understand a bottle as a bottle is a capability.

What will happen if hot water is put in this? What will happen if cold water is put in this? Can it be made only with plastic? Can it be made with anything else? For these, a child makes connections from his previous experience and knowledge. That processing of his previous experience and articulating it by choosing certain words to express his own opinion, is for us a process skill.

The procedural skill is to say b-o-t-t-l-e is bottle. To say that, if you want to write about this in English, there is a structure involved. You have to begin by saying ‘This is a bottle’. You have to use an article. These are procedural skills. We are trying to use certain non-academic kind of jargon to help a teacher come out of her conditioning. But we are most open, if there is something simpler with which we can reach out. With your experience in Digantar, what is a better way? We are still evolving and this approach allows for new ideas to seamlessly flow in.

Rod Hemsell: Between the educational work that you do in your school and the organisation’s relationship with other schools, it sometimes sounded like your organisation is working with many schools on this method. And then, at other times, I thought you were speaking about a particular school’s operation. So I wasn’t quite clear about the extent of the outreach or the permeability of the system that you are describing. I would like to have a little clarification on that.

Gowri BS: We are working in some 22 districts with the governance programme. But after a lot of orientation and open discussions about the
purpose of education and schooling, when we feel that the community – the village as well as the teachers in a particular cluster – are ready for it, only then is the Kalikayatna programme initiated there. So Kalikayatna is active in some six districts here. We work in some thousand schools, in all the clusters put together. We work only with government schools, so in a particular cluster that is chosen all the government schools there come under our programme. That is the kind of MoU we have with the SSA (Sarva Shiksha Abhiyaan). We don’t normally work with – not that we don’t want to work with – private schools. It is just that we felt it is more important to work with the system, and look at the mass education system.

Maitreyee: Did say assessment was not to identify weaknesses, only to identify strengths? You don’t have to publicise it, but if as a teacher you do identify a weakness and you use it so that you can get the student to learn in a different way, it works to their benefit. So I think identifying a weakness is just as important for the teacher – if you know that a child has certain, say, reservations, or sometimes learning disabilities which we don’t acknowledge most of the time. The second thing is this staggered assessment that you were saying – you assess five children every week. Again, from my experience, I see that although things are changing, it is the parents who are a more competitive breed. The students might want to break out of a mould, but half the time parents try to live out their dreams through their children and impose certain pressures. That makes them very competitive among themselves and they try and instil that in their children. So if you pass on some kind of an assessment – whether it is verbal or on paper – to the parent, there tends to be a comparison of views and then the teacher is hounded with questions: why has that child been assessed and not mine? So doesn’t that put the teacher under a lot more pressure?

Gowri BS: I completely agree that weakness has to be observed by the teacher and reported to the child. But as I said, it is about coming out of a conditioning. A typical teacher, or even a typical parent, will first see what the child does wrong. How do you come out of that, break that conditioning?

So we say it is not about looking at anything wrong. You have to look only at what this child is able to do. That is important. Assessment is a feedback mechanism – a feed-back and a feed-forward to move on to the next step. Failure, for us, is not considered a ‘failure’. It is an experience, and till you do that you will not learn. We move on with our experiences. So instead of calling it a weakness, we call it a feedback mechanism, and it shows the next step you have to take. That’s the shift in focus. It is just the wording.
We are somewhere trying to increase the sensitisation level, including for my own self. I had first written here, scholastic and co-scholastic cannot be looked at differently. Then when I read it along with my colleagues, they said why are you saying ‘cannot’, why are you asserting something? It is about being sensitive to the fact that when a person is saying ‘cannot’, he is also saying it in a particular way. We can say ‘it need not be’. The tone is different. We are struggling very hard to bring the teachers out of a typical conditioned mentality.

As regards the concern about parents, we do a lot of groundwork. Every week, we send a reflection portfolio home, and we have parents now who write on that. Those who don’t write, articulate their thoughts at a monthly meeting with parents which is recorded by the facilitator in the class. So it is not that parents don’t want it. Marks should actually reflect a child’s capability. Even if you take a traditional school or a private school where marks are allotted, marks are a representation of some skill. Is the skill there? Look out for that. That is what the parents trust us for. There was once an example of how a child felt that she had been given more marks – that she didn’t actually deserve them but the teacher had given a little extra. The child is aware of something like this, parents too. We spend time to create this ecosystem – an educational ecosystem.

We have now started working in UP and Rajasthan, but Kalikayatna has not been implemented yet. The learning programme has started through discussions: Why go to school? What do you expect from a school? Is that happening? How does one learn in the absence of a school? How do people in villages learn? There is a lot of discussion at their own experience level because you have to help a community articulate its desires. If you pose a very academically worded question, it might be difficult for them to articulate. We try to understand them. For that, we have to do a lot of groundwork.

Reshmi: A few practical questions, because we have been trying to do something like this in our school. We also have large classrooms. One thing is, as I understand, there is a box file that contains the work of children. And then the teacher goes through the portfolio and notes down her observations. And that, later on, is put into the learner’s profile. Is that what it is?

Gowri BS: A learner profile is just a report card.

Reshmi: How often is this report card given to the parents? And then, is it narrative? That is, this learner’s profile, what does it look like?
Another thing is, if that happens, how does feedback go to students? Because in our class, we have about 30-35 students. We also have the portfolio. But over a period of time, the portfolio really becomes a collection of so much work that the story of the learner is not very clear. So then we thought of sorting the portfolio into skills and something similar to what you were talking about. What is difficult is giving specific and timely feedback, which is also a part of formative assessment. This is not easy, but still sort of possible that the teacher looks at the portfolio and notes down her observations. But then, to sit with a student and have a one on one conference and give timely and specific feedback so that the student can improve – that is not possible in a class of 30-35.

We have also been trying to do a narrative based report cards. We have done it for several years now, and are almost giving up. It is so difficult for a single teacher to write narrative based reports for so many students.

Gowri BS: I think all of us face the same problem. I can relate perfectly to what you are saying. It is like this – the profile and the teacher’s observation notebook is more like a checklist. We have four levels at which the teacher will have to put only a tick.

This is how we arrived at the four levels. When you are gaining a new experience, you are just evolving. At that time, you need activities that give exposure. Then you move on to an interested level. Slowly, you make sense of what is happening and there is an interested level of engagement in the task. From there, you move to a stage where you get involved – this is the third stage. The final stage is where you are self directed. For example, you will figure out that Maya knows this, so why don’t I go and ask Maya about this? It is where you are taking responsibility for your learning – not that you already know everything. These four levels point to different ways a child will get engaged.

About giving a descriptive narrative – it’s just one paragraph once in three months in the progress report, the learner’s profile. We are a little hesitant to use the word ‘progress’ – the very word puts pressure on us to see that the child progresses. So we say, tracking the movement, profiling where he is. Once in three months if you look at the child’s file and for three months you have been in the class with him, you can write something. Till that time, you are only ticking. It is not much. For five years, when we were working in the first pilot project in Hunsur district, every year we had to revise the profile based on teachers’ reports. We went on simplifying it. We don’t expect our teachers to do so much of writing because we know that it is not possible.

Reshmi: But what about feedback to students – where, which level, is it
communicated?

**Gowri BS:** We have a break up of each skill. When you say a child is able to do the mechanics of reading as a procedural skill, and reading comprehension as a process skill, there are sub-skills under that. So we look at certain aspects, whatever is within our experience. If we find that there is something else that can come, we add it. There is nothing stagnant about our profiling.

A lot of it gets clarified to students in a very organic way. The child begins with a whole group exercise. Then he does a deeper exploration in a learner group. And then, at the end of the learner group each child gets a chance to make a presentation. For this he discusses with other members of the group about what aspects he should keep in mind – what he should say, that everyone should be able to hear clearly, not talk about mistakes in what others said but about what was right. Then they get feedback – that something wasn’t clear and so on... Everyone talks about everyone, so no one feels it is about him. What a teacher should look for are things that don’t come up in the children’s discussion.

**Reshmi:** What you are saying is that we brainstorm the criteria so that others are able to assess the child?

**Gowri BS:** Yes, they do that for some aspects. When you sit with a child, say, once a week, you see what he has written or drawn and ask: Why have you written this? Why have you drawn it like this? Try to understand how he thinks. So there are some aspects the teacher has to be sensitised towards and some things the children have to be made sensitive to.
Deepa Avashia is a School Leader from the Riverside School, Ahmedabad. The school was established in 2001. Over years, Riverside school has developed, and implemented an in-house curriculum and experimented and innovated in their pedagogic and assessment practices. Deepa shares the approach to education, the pedagogy and assessment in Riverside school.
Assessment & Education

Consider this: the top ten in-demand jobs in 2010 did not even exist in 2004. We are currently educating children for jobs that do not exist, using technologies that haven’t been invented, in order to solve problems we don’t even know are problems yet.

Information doubles every two years. So for a student who has joined a four-year course, half of what he learns in his first year is already outdated by the third. What does this mean for the 21st century learner and educator, and for pedagogy? Choice – from the life-altering to the mundane. Every single day, we make choices, from putting a man on the moon to choosing tea over coffee. And yet we choose to remove this very word from a child’s vocabulary not for a day, not for a year, but for 15 years of his or her formative life, and then wonder why s/he is not creative, imaginative, empathetic and proactive.

When Riverside was conceived, this became a lens for all our practices. Over the last 12 years, our endeavour has been to design practices that help empower our children to create a more desirable, sustainable future. One part of this was to replace the word ‘or’ with ‘and’ – and it made all the difference. Learning experiences were designed for children not to get excited only about Maths, Science and Literature, but also to get them to care about ethics, excellence and engagement.

One example of how this is made common practice at Riverside is how a group of 25 Grade 3 students were made to engage with differently abled children for a year. Along the journey, they realised that three of them did not have proper hearing aids. So they decided to raise funds by conducting an art auction.

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**Video shows glimpses of a year long program engagement of children from Riverside school with differently abled children**

Riverside children are inspired watching a man who has no hands playing football, and they want to experience disability by tying their own hands behind their backs for a day. One child is shown saying that his hands have been tied for three hours – “I am feeling very uncomfortable. But still I have to open my zip and eat my nashta,” he says. They go on to partner Umang, a centre for the hearing impaired, doing a skit and an art auction to raise funds for hearing aids. The student narrator sums up: “This programme is about citizenship and we are partners with Umang because they are also like us only – children.”

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When children do good, they definitely do well! In the benchmarking ASSET (Assessment of Scholastic Skills through Educational Testing, a scholastic
assessment suite developed by Educational Initiatives) exams, Riverside children outperformed their peers in English, Maths and Science. Over the years, we have realised that this does not happen by chance but by design. And like I said earlier, it is not an either-or but a both-and.

So there had to also be a shift in our assessment process. It was no longer about the teacher knowing that the student knows, but also for the students to know that they know. ‘One-size-fits-all’ did not fit in at all. Multiple approaches and practices were adopted for assessment and evaluation, which took the form of pre-assessments – that is, evaluating the readiness of the child for ongoing formative assessments. In our case, it includes a certain amount of peer evaluation, and focus is on the strategies they come up with that will enable them to become more and more competent, and then finally to a range of summative assessments that celebrate learning.

Our school is basically structured into three key stages for assessment.

Key Stage 1 has the Funderstanding, Student-led Portfolio, and Teacher Progress Evaluation which is the report card. Key Stage 2 has the Evidence File, Bright Minds Shine, Student-led Portfolio again – but here it is more digital, Teacher Progress Evaluation, and Personal Projects which happen in Grade 7. Key Stage 3 has Mastery, Checkpoints, Identity Curriculum and Board Exams.

Video shows one approach from each Key Stage.

Key Stage 1: Children are seen compiling a portfolio of their own work to show parents, varying from repeated addition to storybooks they’ve made
– How you FEEL is how you FILE. This is part of the Student Led Conference (SLC) which shows that the school celebrates the student’s voice, and acknowledges how children learn differently, how they learn to understand their own strengths and inclinations, that every child has something s/he might have enjoyed through the year, and that competency is independent of age. “What was your most exciting experience?” asks the teacher. “Life experience,” replies a student. “…it really shows the gradation as far as the school is concerned. It is very revealing, because if you talk about how much of support they have got from parents, how much of support they have got from teachers... you wouldn’t really think that a child of seven would be able to appreciate that and actually acknowledge that,” says a parent.

**Key Stage 2:** The video is called ‘Personal Project/Jury – Student Voice in Assessment’. It is about a month long exercise for Grade 7, which is again self-directed, self selected. They choose anything – it could be related to a skill they want to develop, a question which bothers them, or maybe they want to make a difference in the community. They do surveys, get in touch with experts, and finally make a presentation to a jury. For example, one student says: “How do I use music to make the adolescent period a more memorable one? ... I chose this question because many people, when they grow up, they forget about what their adolescence period was like.” The experts for this project were a rappist and a drummer, who guided the student. The jury consists of a class teacher, a mentor, a peer and an outside person, so that there are different perspectives. A teacher speaks of the remarkable change she finds in each of them after this: “At various points, (they) tried to learn a particular skill. But when it is done through a personal project, the change in them is immense.” A parent says it is great see a learning process which is not overly structured and that makes sense to children.

**Key Stage 3:** Adolescent children become co-constructors in their learning process. Children design a wellbeing curriculum which shifts focus from marks to plurality of identity. This began with an inquiry into why suddenly there is a shift from learning to marks as you go onto the higher grades, triggered off mainly by dramatic data on suicide rates in connection with exit exams. They came up with multiple ways in which they would want to be recognised, other than by exam marks – ‘eVALUEating themselves’. For example, a boy lists his personal traits as: “A boy, a writer, a US supporter, a friend to many, a poet, an actor, a cynic and pessimist at times.” Subtitles give the cues: ‘Exam is an Evaluation, identity is an introspection’; ‘Understanding the plurality of identity through their Legacy’. Students are encouraged to examine their identities, including through
their family ‘legacies’, and then make identity T-shirts. One student says: “Legacy has helped us because I got to compare three points of view. In the T-shirt, there were only two – my peers and me. But in my Legacy, I got my parents, my peers and myself.” Another says: “Today’s performance is purely a lot of thought in school. Many people think that we hate the people who discourage us and we’ll never talk to them again. But we all would like to thank them … because if they had not discouraged us, we would have never been able to understand our identity.” A teacher sums up: “Our identity curriculum is to help them understand that identity is not only the marks they get. It is what describes their personality, their character, and we can know more from that.”

Riverside is work-in-progress, and conferences like these help make visible what is possible and what we can share and learn from each other. I would like to leave you with one thought – to ensure that all our future generations get a quality of life that is better than today, education in the 21st century cannot be by chance, but by design.
Vishnu: That was quite interesting but one thing is not very clear. In ASSET, a lot of it is Science and Maths and so on. But what we see in the portfolios or SLCs are very free elements. How do they tie in with each other? At the end of the day, there might be academic issues to consider.

Deepa: Until Grade 7, we don’t keep subjects separate. Rather, we believe in developing dispositions – scientific thinking, logical mathematical thinking and a language package, rather than Science, Maths and English. And yes, a lot of emphasis is placed on learning embedded in the real world. The units are designed with very clear-cut learning objectives which need to be achieved, keeping the whole idea of multiple intelligences. Students learn differently, therefore they are also given opportunities to demonstrate their understanding through different ways.

That again is assessed in various ways. In the younger classes, there is something called the PSD (Personal Skill Development) form, which is filled up by the teachers. In Key Stage 2, every month there is something called Evidence File Time, where the teacher sits with the students in smaller groups – five or six students – and talk about what they have done through the entire month. There is a dialogue between the teacher, the student and their peers, and they are asked to rate themselves on a scale of ten, on different parameters. If a child says she would like to rate herself as 5 out of 10, say in English, she needs to justify why she thinks so, and her peers need to say if they think she is right or wrong. Then the teacher’s layer comes in. That is the kind of platform where the choice and voice of all three segments are heard. Finally, a mark or number is given for that particular skill.

Grade 8 onwards, it is Evidence Files. But the focus starts becoming the exams – sadly, we can’t do away with it. But the emphasis is always on strategies: How and why did you do this? How do you think you can become better?
What strategies will you now use to make this better the next time?

So that’s how it works. That is where the academics come in.

**Maya Menon:** Which are the teachers enabling this kind of learning? How much do you work with them? All the teachers who come and teach in your school will come from a regular mainstream educational experience. How do they come to adopt this as a method of assessment and a method of teaching and learning?

**Deepa:** A lot is done on professional development in school. If students work 200 days, teachers work at least a month extra. Because if this is what we want children to do, the quality of adult learning has to be very high – only then will this kind of transaction happen.

**Maya:** I was thinking of resistance, because a lot of the time, teachers are resistant to learning.

**Deepa:** Well, not really. There is this whole system of osmosis. When you come into a space and see the children do wonders with their own learning, you understand that there must be some truth in what the system is saying. Therefore there is not so much resistance. But it takes time for them to unlearn what they’ve come with, and this is a continuous process. When a new teacher comes in, she becomes a mentee with a mentor who takes her through the entire year. Constant feedback is given about what she can do, what she did well, what she didn’t do well... A lot of emphasis is put on relevance – of why you are teaching what you are in class. Here there is flexibility to a great measure. The school leaders don’t decide what is to be taught in class. It is the team that sits together, looks at the learning that happened last year, whether it went well or not, and if there are other things that they would like the child to learn.

For example, in Key Stage 1, this year we had teacher-passion driven units. You are teaching them certain skills, and you can use any means to teach that. Teacher-passion works better because you are more motivated. There were two teachers who were into jewellery making. So the children learnt Maths, Language, Science, everything, through jewellery making. There was another teacher who was passionate about cooking, so cooking became the unit. How would you describe your mocktail to an audience? Language skills are needed.

**Maya:** At what time do you plan these developments, design these programmes?

**Deepa:** At the beginning of the year. That is why we come in a month earlier.
We stay back after the kids go off on their holidays. That is when we do it.

*Jacob Tharu:* This is an echo of an earlier question. I am reacting to your statement that up to Class 7, you work only with skills which are generated. And after 7, you start doing – what was the expression you used?

*Deepa:* I said that they do work, but sadly we can’t do away with exams.

*Jacob Tharu:* Yes. We talk about skills. There is the danger of conveying the impression that substance is not important. So the thing is, after Class 8, it is not exams – it is the content of advanced subjects. Mathematics from Class 8 on is much more complex than Mathematics at the lower level. The need to get the concepts of Biology, of Physics, in Chemistry – is this all happening? And how exactly does this happen through these units? Of course, you have only given one or two examples of teacher passion. There are certain things you can learn from jewellery making, there are many other things that you can’t. So obviously, there is more of a curriculum which covers what you might call syllabus.

*Deepa:* Yes.

*Jacob Tharu:* See, that doesn’t come through. So this is a problem with presentations like this. I mean, this is a very, very intelligent audience. But what happens if a newspaper reporter comes and picks this up and conveys that it is all fun and games and we don’t teach?

*Deepa:* It’s a lot of work...

*Jacob Tharu:* So obviously the foundations are being laid, and I think this is very important. Could you say a little bit more about children being given a lot of freedom and not following the syllabus topic by topic? For instance, it is desperately important for children to develop the skill of reading in Classes 1 to 3. It is something we have studied the world over – learning to read on one’s own and make sense. What is the backdrop against which these things happen?

*Deepa:* Let me again give you an example. We do a unit called ‘Speeches that changed the World’. This again happens at Grade 6 level. This is the unit where you talk to children and get them to understand the power of words. There are various things you bring in. There is a lot of reading because the speeches of, say, Nehru or Gandhi, or Hitler for that matter, have very substantial stuff in it. They have to understand that. Again, we are not talking about reading in isolation. Reading becomes a fallout of whatever inquiry they are involved
with. So reading becomes a part of whatever we are doing as a unit. If we are doing a unit on Planet Earth, they will be reading encyclopaedias. All kinds of reading, but towards a particular goal.

Devika: Is there a syllabus in place – from Grade 1 onwards, up to 7 or whatever – which very clearly articulates what the child will know and understand in terms of concepts, what the child will be able to do in terms of skills, and then, what are these attitudes and dispositions that you are planning to develop through all this? Even though you are answering Tharu’s question about how reading will happen and so on, to me it seems incidental. If there is a syllabus in place, there is a mechanics of writing, of reading, which needs to get done. Even if we are talking about a skill, there is a concept on which that skill is based. That concept needs to be dealt with in depth, and the child has to understand it before we can move on to the skill. So could you share what is this curriculum that Riverside has articulated? And some examples – what are these concepts that we might talk about for Grade 1, and 2 and 3, or maybe something in 5, 6 and 7 that will help us understand?

Deepa: Yes, there are very clear learning objectives and we map them out taking the 10th books. We work backwards. So that means by the time they reach Grade 10, all this is what they should have learnt – not necessarily in the same year that the syllabus prescribes it to be. For example, in the normal syllabus, fractions might come in Grade 3. We might choose to teach it, maybe in the 4th or the 5th. That is how we make things different – not be dependent on the year they have told us to do it in. There are very clear cut learning objectives but we choose the means of obtaining those objectives.

Let us take letter writing as a skill being developed. When a child is told to write a letter, we make that more authentic and say, you need a place to play, you have less space in school for playing, so write me a letter persuading me to give you permission [for more space]. They are more engaged with this and will do it much better than if you just told them to write a persuasive letter – which they know never goes out, and has nothing to do with anything. We then look at every letter, help with the mechanics, how it could you have been written this better, and the best one goes to the principal. So everything is not classroom based, where there is no connection to anything else that they are doing. Time is spent getting them to understand how to write it. They want it so much that they will come up with all the criteria themselves.

Then again, there is choice and voice, there is transfer of ownership to the child. So the teacher is just facilitating all of this. That is a small example. We
do it for various other things too.

**Yashika Chandna:** What I got was that you are talking about contextualising the whole process of learning. That is one thing. The other thing that I could see was that you are trying to put projects in place which have real connections to the child’s life, putting a bit of a Hodgskin framework into it. When you talk about identity, I couldn’t see the ascribed part of identity all through your presentation – neither the home language, nor the culture of the child. It was something like monoculture or something which was coming up through the different things, which I am not really comfortable with. If you could put some light on that?

**Deepa:** In the sense that you couldn’t see the plurality of identity in the children?

**Yashika:** I couldn’t see the ascribed part of identity. I could see the achieved. I couldn’t see the child’s culture, I couldn’t see the child’s class, I couldn’t see the child’s caste. And these three things really make a pertinent part of our identity, and I couldn’t see that. Secondly, I couldn’t see any other language other than English.

**Deepa:** It is an English medium school, so we do work with English. Our second language is Hindi. We don’t have any other language which we use in school.

**Yashika:** That is a problematic thing for me as a person.

**Deepa:** Sure. There are various models...

**Audience:** What background do your children come from?

**Deepa:** Varied. We have children from different religions. We have Muslim kids, we have Jains and Hindus – if that’s what you are asking. And we also have almost 20 per cent children on financial assistance. We provide the fee structure.

**Rod Hemsell:** Are you aware of the value that is given to contextualised and relevant learning by CCE? Do you reference at all the CBSE framework, or is this...

**Deepa:** No, we have the IGCSE. We follow the Cambridge model.
Rod Hemsell: The IGCSE. But you are aware of the fact that contextualising and making activities relevant is currently valued highly in education reform – not just by you but by everybody. So I think that is definitely to your credit.

Deepa: Thank you.
Experiences in Assessment: Chrysalis, an Assessment Framework based on CCE

Bala Subramaniam

Bala is part of the core team at EZ Vidya, an education research organization focused on delivering quality holistic education in Indian schools. Chrysalis, a curriculum developed by EZ Vidya, tries to integrate opportunities for innovative pedagogic practices and assessment opportunities into the curriculum. Bala speaks about the Chrysalis curriculum and the formative assessment opportunities integrated into it and their experiences of working with schools and teachers and children using Chrysalis.
I really liked what Jacob [Tharu] said about looking at assessment as a performance and then the interpretation of performance. If we look at assessment in that sort of framework, then we can attempt to create varied multiple opportunities for performance that are seamlessly integrated as a part of the teaching-learning process. We manage to do that to some extent, and now we are embarking on the process of how these performances could possibly be interpreted. In that sense, it is the beginning of our journey in assessment.

Our base is Chrysalis, one of our programmes which runs in about a hundred schools. It includes certain student materials – textbook replacements that we call studios. Briefly, the studio comprises some material for the teacher and a very strong training and handholding that goes with it.

Our target audience is urban, semi-urban, small town private schools. All of them happen to be English medium schools, and these classes typically have about 40 children to one teacher, sometimes more. Among the challenges is the need to keep empowering the teachers. There is a huge teacher turnover, and whatever practices – good practices – exist in schools are limited to teachers. How do we systemise it and bring it across multiple schools?

I am stating the context very specifically so that we look at our attempted assessment within that and in the midst of some of these constraints. One of the issues we’d like to focus on is the high stakes, which places a lot of stress on the student. As it stands now, examinations don’t really tell us where the problem is or why a child is not able to learn something. We conduct them at specific points of time, when everybody has to take them. More importantly, this does not provide variety – everybody is assessed in the same way, just as everybody is taught in the same way.

What we understand as the spirit of CCE (Comprehensive and Continuous Education) is what it intends to do, which may not be exactly as stated in their website or manual. We try and use various methods of assessing, and examination is only one way of doing it. We also look at aspects apart from subject knowledge or conceptual understanding, using these assessments to make pedagogic decisions. This is so that the teacher consciously focuses on assessment as a part of her teaching and is able to make day-to-day changes in the way she teaches and how she proceeds with her plans. Make it low stakes, make it informal, so children don’t need to know that they are being assessed. We also do it continuously, so there is flexibility, and various children can be assessed at different points of time.

Our aspiration within the framework of the Chrysalis programme has been how to seamlessly integrate the process of assessing with teaching, how we
should be talking more of pedagogy and not assessment. These are very tightly linked.

One aspect we have been trying to focus on is the role of the teacher. What is the teacher doing in the classroom, in dialogue, in discourse? There has been a lot of emphasis on the teacher facilitating learning. What we are also trying to do here is to see how the teacher can move from being a facilitator to an assessor. Just to clarify – strictly speaking, the idea of assessing is very integral to the idea of facilitating. But we have deliberately separated it to bring in a teacher’s point of view, that when you are teaching can you constantly be more observant and more sensitive to looking for what we call evidences of understanding and performances of understanding?

That being the aspiration, we see today in classrooms that textbooks can become very limiting. A lot of teachers in schools and classes are guided very strongly by the textbook – they don’t move beyond it, and these textbooks hardly provide any scope for expression and gathering of evidences.

In the context of our own work, there is a constant need to empower teachers. For example, observation is a skill that we constantly have to work upon with the teachers. Even when we are sitting in a classroom picking questions and responses from students, or having discussions and observing what comes out of that, using that to make interpretations, these are the sort of skills we aspire for. And there is also the reality of where our teachers are.

- **Conceptual understanding** – ‘weather’ and ‘season’
- **Mode of expression**
There is significant focus on just transacting – teaching and conveying. From there we seem to have moved to facilitating, where we are saying that it is not necessary that the teacher should be talking. We could do certain things and create conditions where learning can happen and so on. But even when these conditions are created, are we able to see evidences of learning? That is something that we feel is largely missing.

Our quest now is how to make true CCE – the spirit of it – possible in a classroom with 40-50 children. I will quickly run you through a Class 3 lesson on ‘Weather and Season’ to show assessment as it is done in Chrysalis.

Picture of a maze with one path eventually leading to a house. There are random weather related items marking optional paths – hat, umbrella, hot beverage, tender coconut, woollen cap, strappy sandals, overcoat, boots, watermelon slice, sunglasses, muffler, etc. The text reads: ‘Go through the maze to reach the house. Look at all the objects in the path that you took and guess the weather of the day. Write it in the space provided.’

This is a part of what we call a studio, a textbook replacement. Essentially, what a studio aspires to do is integrate pedagogy into the student material itself and make it very interactive, so that a lot of learning ideas and concepts are derived from the child’s understanding, from discussions that happen in the classroom, and so on. Children go through this maze, see the objects, and

- Data gathering, observation
- Derivation
guess the weather. Then they are asked to draw a symbol to represent the
day’s weather. Every child does it in his or her own way.

We go on to try and define what weather is, and ask them look at the newspaper
at home and make some observations – like, record the temperatures on two
consecutive days. Then we ask: What is the correlation between temperature
and weather? So we are saying that weather is dictated by temperature and
wind and so on.

This is typically how a lesson would proceed. My objective here is not really to
run you through the lesson, but to see how a studio, along with teacher mate-
rial and our own working with the teachers – the human aspect of it – can
be used to promote CCE. I am going to run you through a few responses and
possibly just ponder, as a forum. I have stuck my neck out in making some
annotations! Please take these to be examples. Also, they may not be very well
defined. So if I say ‘Creativity’, we are only in the process of trying to figure
out what creativity is, how it is to be interpreted.

We see two different student responses in the slide. One child says ‘summer’,
the other says ‘sunny’. When we asked them to draw symbols, the first child
drew various symbols and the other drew a sun. The other day, I was in the
classroom and we picked this up, just to sit and dwell on it a bit. We tend to do
that with teachers. And immediately, the most common response was that the
child who did multiple drawings was more creative than the one who drew
the sun. Why? Because the first child chose to show various things – someone
holding a drink, someone holding an ice cream, a fan... So there was a lot of
drawing and, commonly, creativity tends to get correlated with drawing and
crafts and so on very easily. Sure, these two children do have different modes
of expression. The second child has preferred to be very straightforward.
Weather of the day? Just draw a sun.

The other thing to observe is how they have described the weather – ‘summer’
and ‘sunny’. We tell the teacher there are children who have not been able to
distinguish between weather and season, to bear that in mind and clarify it
through the lesson.

I will run you through a few more. We call this a ‘look within’ question. It is
usually closely related to the subject but also tries to understand the child's
preference. We say, “Name your favourite season. What do you like the most
about the season?” One child says, “Summer – we can eat ice cream.” So the
child associates summer with eating ice cream. Another child says, “Spring,
because the trees will have new flowers and all plants will grow.” A third child
says, “Winter – cool wind.” A fourth says, “Summer – I go to my village, and go
swimming and play.” This child probably associates summer with the summer vacation – going away from the usual setting.

The idea of asking, “What do you like about the season?” gives us insight into the child’s understanding of seasons itself. When a child says that s/he likes winter because there is a cool wind, it is obvious that s/he has understood what winter means. There is another aspect to this. One of our teachers mentioned the other day that she was getting to know her children a lot better through little nuggets like going for summer vacations or liking ice creams – it made her relationship with them grow stronger. And I am sure you will all agree that that obviously is going to promote better learning.

Another example: “You are leaving for a vacation in Ladakh in two days’ time and there is a weather forecast of heavy snowfall. What do you pack for your trip?” How they would like to deal with the weather reinforces their understanding. At the same time, other abilities like vocabulary get developed – poncho, for example, is not a word that I would very commonly use myself, even as an adult. Also the ability to frame sentences: She may get wet – comma – a cycle tyre may get stuck in the puddle. That’s a fairly well framed sentence. This happens to be a Social Studies lesson, so if this teacher finds that children are not able to frame sentences, she could discuss that with the English teacher.

We could ask them to divide themselves into groups and role play ‘The formation of seasons and how each season affects life’. Here there are opportunities to assess other aspects like what happens during role play – are children able to gel with others, are they giving each other opportunities, are they able to appreciate each other’s role playing? These would be ascribed to socio-emotional learning, or even aesthetic sense.

Interestingly, a majority of the responses to this was the rainy season, possibly because it is easy to draw lots of rain and clouds. We said they should choose a season and create a new accessory that could be of use. One child chose a waterproof bag so books don’t get wet. Possibly this child had been affected by his/her books getting wet on the way to school. Another child wanted a bike with an umbrella. These tell us something about the ability of the child to think and to create, which is very tightly linked to the subject concept itself.

To draw your attention to the whole and look at methods, all these responses are for one topic, one lesson. But there were various methods – role play, drawing, case study, situation analysis, and also opportunities to assess aspects apart from subject knowledge. How these are interpreted is where the challenge lies and that is what we are trying to put our heads together.
Experiences in Assessment: Chrysalis, an Assessment Framework based on CCE
Bala Subramaniam

on – the diagnostic aspect.

The other thing is that because this is a studio, and treated like a primary learning resource in the classroom like a textbook, this whole process becomes very informal. So for a child, it is just drawing, painting, splashing around and role playing. But for the teacher, if she is observant and sensitive, these are opportunities for assessment that is happening continuously and flexibly.

Moving forward, there are things we would like to do or are thinking about doing. One is to define a set of things we would like to assess, apart from the objectives or outcomes of each lesson itself. We are also hoping that we could involve and dialogue with our teachers, and make it a collaborative endeavour to discuss what other things we would like to assess about the child.

We would also like to try and put together some tools for data gathering. We are not yet sure what these will look like. While we completely appreciate that it must be left to the teacher to do this, we are also grappling with ensuring that some minimum level of authentic quality assessment also happens. How do we strike a middle path between leaving it to the teacher and having a rigid, tight structure? In this context, we are hoping we can explore the role of technology, and also study our teachers a little more from the assessment lens and see how they view assessments. What are the roles they see themselves playing? Are there any gaps in that? How can we slowly handhold them?
**Anjali Gupte:** How are you going to get the teachers to assess the way you describe? I think that is one very big challenge, and I don’t know how you are saying that you will do that. Every teacher has got her own way of assessing, and to tell her that this is the way you are to do it is not the done thing, anyway.

**Bala:** Short answer – we don’t know. Even before going to the how to assess bit, there are a few other challenges that we are even now grappling with. For example, ‘Which season do you like and why?’ is a question that tends to get skipped. Why? Because it is not considered important. The definition of weather is important, the definition of season is important. Write three differences in a table form between weather and season – those are important.

So at the very basic level, the challenge is even to help teachers understand that these are not just questions to be answered or activities to be completed, but opportunities where they will be able to assess a host of things or, very simply, assess the student’s understanding of the topic itself. That is something we are grappling with for starters. As we go on, we are hoping we will dwell upon this a little more and come up with – I don’t know what.

**Chitra Ravi:** I think it’s sounding a bit too modest for my liking because we have already seen that the materials are empowering teachers to observe what they have not noticed with textbooks. And of course, our programme is strongly linked with teacher empowerment. This goes with what we call a teacher framework. It is not a typical manual that tells her what to do step by step, but gives her a set of learning outcomes that many of these activities have as a built-in assessment. It gives her spaces where she notices what kinds of skills and dispositions she can observe from some of the answers and responses. There is a whole lot of training that happens along with this material.

Yes, there is a very wide range of teachers, including those who want to skip
the questions Bala mentioned. But then we actually show responses and tell
them, “Do you notice that these are diagnostic – responses that can help you
actually figure out where the problem lies?” Once they get tuned to it, we see
that the capability building is faster than with a normal teacher empowerment
programme, where there are no materials and supplemental complementing
aids, but there is training, a whole lot of beliefs set in – and then they go back to
classrooms and are quite at a loss as how to do it.

I personally think that there is a lot of hope in what we see. But we have a long
way to go, and that is why we have tried in a few set schools to give certain tools
that they can administer. Somebody was talking about tools where they observe
– we have also tried to give them some tools, always conscious that these are
not limiting and they are not restraining a teacher’s own unique ways of trans-
acting assessing. At the same time, we believe that frameworks and certain basic
guidelines are very critical.

I think we are there. Yesterday, there was an anecdote about a question in Maths,
which was kind of what we call a ‘look around’. What you saw here was a ‘look
within’. It has more relevance, it is more societal. We do an addition-subtraction
concept, then give a sample slogan like ‘Add more trees, subtract pollution’,
and ask if they could come up with more such slogans. We had a 3rd Standard
kid saying, “Add more good fruits in the diet, subtract junk food.” What we are
saying is that teachers are very excited. We have to point out to them: Do you see
that the concept of addition and subtraction is understood in what seems like a
very ‘look around’ question? The whole idea is to make the teachers see what we
would like them to observe, as a part of learning which encompasses the social
and emotional, creativity, and primarily, understanding of concepts.

Devika: Very nice presentation, Bala. Even earlier, when you shared some of the
Chrysalis work with me I always appreciated how you designed your textbooks.
However, I have two questions.

One is, have you articulated the objectives or the learning outcomes upfront – all
of them? Like, if this was a season and weather chapter, then the obvious ones
would be that the child should be able to understand how seasons are formed
and whether it is the tilt of the axis or the distance from the sun – which is a
very abstract concept in Grade 3. Then, in the same listing, since you have been
stressing on how you have called out a personal view of liking a particular season,
is it also a part of your objective that the child will be able to reflect and so on?
Because that is what will ultimately also reflect in the rubric, which you say you
haven’t yet designed.

The second question relates to what you showed as a diagnosis. Again, for this
lesson it was simple because it was weather and season and the child is confused between them. My question is, who is doing this exercise? I mean, is EZ Vidya and Chrysalis doing this exercise, or are the teachers expected to do this exercise of actually calling out possible misconceptions? That is, as we know, a huge exercise – making a list of the possible misconceptions of every subject, every concept, and then preparing the teacher to look out for them. So I wanted to know whether you are doing it, or how are we ensuring that this diagnosis will actually happen the way we hope it will happen?

**Bala:** To answer the second question, it is both. We have people in our team who have been teaching these subjects or grappling with these ideas for many years, and when you look around you find commonly published misconceptions. We also have a team working with these schools. So we don’t just leave these materials and come away. People sit in the classroom, engage with teachers and get from them what the misunderstandings or misconceptions are in their classrooms, and we document those.

About outcomes – yes, for every lesson we have the expected learning outcomes quite clearly defined. These are related to the concepts of the lesson itself. We also have another category which we call the core ideas for every lesson. How we try to differentiate these is that the learning outcomes are a little more demonstrable, or the attempt is to make them more demonstrable in the sense that the student is able to distinguish between ‘a’ and ‘b’ and so on. The core idea of a lesson is when we try to dialogue with teachers and understand things, when we ask: “Why should a child of Class 3 be learning about seasons? What is the big idea of learning about seasons? Has it to do with adapting yourself to various things? If I am coming to Bangalore from Madras, I’d better carry something that will keep me warm?” Could these be the larger purpose of this lesson?

So the purpose of the lesson is not to define what weather it is, or distinguish between weather and season, but it gets defined in the core idea. Some of these larger things, like the ability to reflect and so on, we have not yet really defined them apart from in our own vision statement which carries an aspect of self discovery as being the key to education.

**Rod Hemsell:** Going back to the beginning, you want to go in the direction of helping teachers become assessors and not just facilitators. But what you have presented is a lesson for students to complete, which means that your focus up to this point has been more on improving the way lessons are delivered to students. And then you are asking the question: How do we use that as a basis for helping
teachers become observers and facilitators? Is that correct? Assessors?

Bala: Absolutely.

Rod Hemsell: This is a very interesting position to be in then. And I think it is very relevant for the whole question of CCE because it’s a challenge for every teacher in every school to make that transition – to become an observer and an assessor. So I would like to suggest that you don’t need to provide a detailed rubric right upfront. What you should do, I think, is ask the teacher: What do you see? Then you can ask a follow-up question: Do you think that that is original, or do you think that that student has shown a sound grasp of the lesson? Little by little, you can get from the teacher, a response that actually comes from the teacher. And then you can start to develop a rubric based upon the teacher’s response.

The reason why I suggest that is that you want the teacher to start making those observations. And they are not going to do it easily. You are going to have to ask follow-up questions, and redirect questions, and treat that teacher just like you would teach a student in a constructivist classroom. I think this is really essential to do experimentally with some teachers, based upon materials that you are very familiar with, and develop some rubrics that address all those different skills that you want them to assess – accuracy and remembering facts, interest level or creativity of the student, language skills, or whatever. But first of all, you want the teacher to start observing all those things instead of just thinking about what is the right answer and what is the wrong answer. That is a very interesting and challenging position to be in, if you have the confidence of the teachers and start working with them to develop the rubrics.

I was going to ask another question, which I think I know the answer to. If that teacher can then work on developing rubrics with the students so that they know, upfront, the whole range of skills and sensitivities that you are looking for, it largely eliminates the randomness in the process. But that is a few stages ahead.

Rohit Dhankar: You say that you are moving assessment towards teaching – that is, you are making assessment a part of the teaching – and in the very next sentence, you want to make the teacher a facilitator and assessor. I see the tension. You are pulling in two different directions. Why don’t you define the facilitator in such a manner that the assessor becomes a subset of that?

Let me give you another interpretation. I would like to know if one of your teachers comes up with these kinds of things, what would you do? It is still sitting there. [Not sure what this means but doesn’t connect without it.] If that is the
case, then your sheet seems to be somewhat confusing for the child – whether the concept behind it is weather or season. If someone says ‘summer’, then it is a season. And to define a season, you have to do several things. If someone says ‘sunny’, then you don’t need to do anything but make the sun. So I don’t interpret it as creativity at all – it is a choice. Suppose someone says ‘cloudy’, it is enough to make a cloud. But if you say something like ‘summer’ or ‘winter’, then you need to give more than one example. So this might be actually dictated by the child’s choice of that concept rather than assessing creativity out of that. Why I am making this argument is, perhaps you are assessing the child’s critical thinking and not creativity.

**Chitra:** This is actually not assessing creativity. It was one of the interpretations.

**Rohit Dhankar:** That is what I am saying – if you are interpreting it as creativity, then I advance an argument to interpret it as critical thinking. So what would you make with that?

**Devika:** Making a choice.

**Hardy:** Also precision. The second one is very precise.

**Rohit Dhankar:** Yes.

**Jacob Tharu:** I want to draw your attention from facilitator to assessor. I think it should be the other way. I want to ask a further question. Even without talking about assessment, you can do a good job for the next three months by just promoting good transaction. We have to make that our frame and then say that if you do a little bit of assessment, this pedagogy can be enriched. We have to demand the assessment as an enrichment of pedagogy, because we value a certain type of pedagogy. So, in fact, I think you can cut out all the assessment part of this and there is still very good teacher training, teacher empowerment.

**Bala:** Just a quick thought on that. At the risk of sounding dismal again – Chitra calls me dismal because I am the one who has to deal with all this, meet teachers every day! – the intrinsic value of good transaction sometimes is just not appreciated. The immediate question is: Why do we need to do all this? We have studied this, written the definition. It is not just about good transaction – you are interested in what the child is able to define.

**Chitra:** Also, most teachers think that activities are important but don’t look at activities as eliciting performance of understanding as we call it. So that is a huge thing we are grappling with. They say there are too many activities. We have to tell them that it is not mere activities, these are all opportunities for you to run through a low stake assessment. So that is where the word ‘assessment’ comes in.
Jacob Tharu: I fully agree with it. That is why my 49 per cent disagreement. You can’t get rid of assessment.

Hardy: You started off by using the word ‘teacher’. Now, teacher includes facilitation and assessment, both. So we should go back to the word ‘teacher’ and ‘teaching’!
Panel Discussion: Assessing Social and Emotional Learning – Possibilities and Challenges

Panel: Vishnuteerth Agnihotri (Educational Initiatives), Maya Menon (The Teacher Foundation), Sonal Raja (Azim Premji Foundation)

The panel discussion covered the possibility and challenges of assessing the relatively intangible area of Social and Emotional Learning. Panelists presented their views and insights based on their own experiences in working in this domain. Vishnu draws upon his general experience in working with assessments and also from his experience on working for the Quality Education Study. Maya draws upon her general experience in teacher development and in working on projects like the Safe and Sensitive schools and the more recent project that studies Social and Emotional learning. Sonal draws on her experiences in working towards an assessment framework for non-cognitive areas and also on her work as a child psychologist.
How do you measure social and emotional learning? Should we even measure it? This is a very explosive topic and a new area for me and for my organisation, because we didn’t really look very closely at social and emotional learning till we did the Quality Education Study.

Assessment serves two purposes. One is to provide specific feedback – there are certain things to be achieved, where do we stand with respect to those? An equally important purpose of assessment is to shed light on what is important. The moment you say you are going to assess something – self control, or how to represent a point of view without upsetting someone, or a certain environment – even if you make a 50 per cent perfect attempt, the important thing is that it focuses attention that it is important and valued.

My limited experience has been this Quality Education Study. We are also working with a project in the Maldives, where they have a new curriculum in place. They want to do a baseline study of not only academic subjects, but also what they loosely call values and attitudes.

There are two things. When you are trying to measure social and emotional learning, what are you trying to measure? The so-called ‘end results’ – like, a student should be able to do this or display this kind of an attitude – or an environment which produces certain social and emotional learning goals? We were unanimous in saying both were equally important. We need to measure what kind of attitude children display, and also the classroom processes – how a teacher interacts with a child or the way children interact with each other.

I come from an organisation that works more with large-scale assessments. I have very little or no exposure to the classroom situation itself. I believe that it is worthwhile to measure social and emotional learning, and large-scale assessments have certain advantages. They are built by experts and give a lot of data across a large number of students. They give you an opportunity to correlate one dimension with another. For example, if children persist more through failure, is that connected with their academic learning outcome?

There is a limitation, of course, in the variety of tools that can be used in assessing. So a mature teacher who is well trained in this will probably get children to conduct role play or, by observation, deduce a lot more than large-scale assessment could. But the teacher may be biased, or the students may fear that they cannot reveal certain things because it’s the teacher who is asking.

This is an example of a question or a tool to check students’ attitudes towards
civic responsibility that we used in the Quality Education Study. What is interesting is that data shows that younger children tend to give the ideal answer: c) Never. As they grow older they say that when others do it, it’s fine. It gives you an insight into how we are as people. It is not so much assessing the student, but the entire social climate.

Assessing the ‘end results’…1

There is a New York Times article, ‘What is the Secret to Successes/Failure’, that talks about an instrument called the Grit Scale. It was mainly developed in the context of the KIPP (Knowledge is Power Programme) charter schools, based on a book written by Martin Seligman and someone else. They reduced it to a 24-item instrument, and there is an 8-item version for younger kids. What it tries to assess is the consistency of interests in an individual and the proclivity to persist through failure. In fact, you will see that the KIPP scorecard talks about the student assessing himself on 24 items, and the teachers give feedback on that.

This work is based on studies showing that success in life is highly correlated to the ability to persist through failure and having a consistency of interests. The domain of social and emotional learning is endless, and one of the questions which is very hard to answer is, what kind of things do you pick up to measure? That is the Grit Scale.

With regard to environment, we don’t assess the end results of what the
student is thinking but look at the environment. This slide was an example of a tool with which we assessed the climate of the classroom. Teachers and principals are asked questions like: Is strict discipline necessary for proper teaching? For discipline, is teacher’s control a must? Should students fear the teacher?

Assessing the environment... 1

1. Strict discipline is necessary for proper teaching.
2. For discipline to be there a teacher’s control is a must.
3. For discipline to be there, the students should fear the teacher.
4. Undisciplined students or students not paying attention should be physically punished.

We saw a very strong – sort of negative – correlation between belief in strict discipline and lower academic performance. The other correlation was with student perception of teacher support, involvement in the classroom and equity in the classroom. Wherever there was a belief in strict discipline, in those classrooms there was a negative perception on these three parameters. These are the kinds of things in which large-scale assessments are strong.

Another controversial example is about children rating teachers. A Harvard economist did an experiment to see if we could assess the quality of teaching or teachers by getting students to rate teachers. Interestingly, the five items most strongly associated with student learning were to do with how much the class followed what the teacher was trying to do, and if there was some degree of control: 1) Students in this class treat the teacher with respect. 2) My classmates behave the way my teacher wants them to. 3) Our class stays busy and doesn’t waste time. 4) In this class, we learn a lot almost every day. 5) In this class, we learn to correct our mistakes.
One would have thought that a general feeling of care or the teacher being loving might be very important. But it turns out that it is a very – to use an Arvind Gupta term – Anton Makarenko kind of thing. You respect the people as much as possible and you demand as much as you can. But when you do both, you seem to get the best learning outcomes.

I would like to end by saying that though this is a very sticky area, it is worthwhile getting into this, focusing on what is important and refining the assessments along the way. Large-scale assessments have their role and school assessments have their roles.

Maya Menon

Our involvement with social-emotional learning started with our work with teachers – training them in teaching methodologies, classroom management skills, better teaching approaches in terms of subjects and so on. We would go to see how teachers were practising in the classroom after our teaching. I began to see a pattern that while they were adopting new ideas and new methods, the fundamental way in which they were looking at the child was not changing – as somebody who could not be trusted, who could not or may not be able to learn on his or her own. And that is when it struck me that unless that changed, nothing else would change.
So one point of my interest in social-emotional learning did not come from the research or large-scale assessment angle, but from the classroom. The other was my own contact and experience with a particular approach. I have an enduring interest in Circle Time, which changed the dynamics of teacher-student interaction. My interest in social-emotional learning began with watching how teachers and students interact. I often notice how there is this continuing authoritarianism that exists in all our classrooms, whether it is an upper end school, or a rural government school, or a low cost private school. We have the privilege of working with all kinds of schools and we see that the classrooms are not different, and the way teachers and students interact is not very different.

That is what got us really concerned and we began to think about what we could do. For two-and-a-half years, we have been involved with another project called Safe and Sensitive Schools, with support from WATIS. And currently, we are involved with another project where we are looking at developing standards for social-emotional learning for Indian schools.

Why is social-emotional learning important? If we believe that education is for ensuring that people are both humane as well as human, then I think social-emotional learning is vital, as much as the academic or – as CBSE would say – scholastic learning. Increasingly, social-emotional learning has come to the fore under CBSE’s co-scholastic dimension, though it is very poorly understood there, as well as very poorly delivered or practised.

Just yesterday I was at a school that we are working with, a low cost private school. I walked into several classes unannounced and found every other teacher with a stick in the hand. Social-emotional learning cannot happen, as Vishnu was saying, in an environment which does not nurture it. I asked them, with genuine sorrow, “Why do you have to use the stick with children who are not unnecessarily undisciplined or anything?” The reply was, “No, no, I am not using the stick, just showing it.” Showing the stick is a symbol of fear. Evoking fear is the way we seem to teach in all our schools.

There is something fundamentally askew about how, in India, we see children. Maybe in other parts of the world too, but I can only comment about our schools in India. We distrust children in every possible way. We don’t trust them to learn. We think they are not capable of taking decisions on their own, they can’t manage themselves, they can’t help each other, and so on. So if the fundamental way in which teachers and adults and children interact with each other doesn’t change, we can’t be talking about social-emotional learning. And then, of course, we have to begin to look at assessment of
social-emotional learning.

Sonal Raja

My journey started from understanding children and wanting to help them in terms of being a child psychologist or counsellor, realising that children spend a lot of attentive, alert, waking hours in school. We are trying to develop and nurture children into human beings who are capable, who have potential in different areas. So when we talk about child development, what is the role of the school in nurturing these abilities? In those first very important years in school, what effect does the school environment have on that kind of development?

All of us no doubt agree that this is an area where we need to pay more attention. But my struggle in working in this area started with wanting to know, why is the emphasis given separately? This space of social and emotional development should not be looked at as separate from the academic, from the scholastic, from the cognitive, because those are the verses of the whole domain. Therefore, what is the role of academics, the role of knowledge?

So, for me, it is not this over the other, and it is not this without the other. The content, the academics, the skills – that always is there. We want to learn skills. But the way we want to learn skills, the way in which we nurture the abilities which a child has in developing these skills, is a combination we should focus on.

Although there are so many words already in the domain about non-cognitive and co-scholastic, we are trying to see whether we can call it the personal and social wellbeing of the individual. We are seeing how we can develop the abilities or skills of the individual – whether it is critical thinking, creativity, self-awareness, or identity. But what the NCF (National Curriculum Framework) also emphasises is that it is not only about the individual – s/he is in constant interaction with society. The person goes through the self-journey by being a meaningful contributor to the society as well. Therefore personal and social wellbeing are very important aspects of an individual’s overall wellbeing.

In child psychology or human development, we talk about the areas of development – physical, social, emotional. We are trying to see how we can see this development through the lens of the NCF, what education aims to achieve through these. To educate is to bring out. What do we aim to bring out? The potential and the abilities that are already present in the children.

I have a little reservation about how much we can measure it. We definitely
want children to go on a journey from Point A to Point B having some feedback loops of assessing whether the children are moving in a direction that our education aims to achieve. I can’t comment on how to assess that – what kind of tools we might have, what kind of measurement or scale at which we can measure. But there needs to be some way of integrating this and helping children – or people – understand that they are moving from Point A to Point B in their journey of the aims of education.

We have to also think about what our aim of assessment is. Is it to know how the child is developing, where the child is going? Or is it again about the mastery of content that we probably will bring in a co-scholastic way, or in a life skill way, or in some other form of moral science or value education?

I am just thinking aloud about the challenges we have in this domain and what assessment might do. Assessment of this area cannot be static because these attributes are not static – they are constantly wavering. People have different preferences at different points in time. Unlike the traditional way which has been saying that your personality is like this, your interests are these and your aptitude is this, in this age we should not be talking about measuring and containing a person’s dynamic abilities and attributes.

Maya

I want to make a point here. We cannot be talking about assessing children’s social-emotional learning unless we look at assessing the environment. Because if the environment is not conducive for developing and enhancing social-emotional learning, then I don’t think it is worthwhile examining the ability to demonstrate the kind of attitudes or competencies a child shows emotionally or socially.

It must be mandatory, especially in the context of RTE (Right to Education) that determines that schools have to be child-friendly, happy, etc. if we can’t put that in place, there is no point assessing social-emotional learning. It is imperative that schools become friendly places. We all agree on that here, but a lot of the time it is all said on paper. Teachers mouth that we must be child-friendly and so on but continue to practise what I mentioned earlier. I went to speak to the administrator about the teachers who were hitting children, and I found her walloping a 6th Standard child. I waited – I shouldn’t have. Then I went and said, “I don’t think you should have hit him.” The boy came out crying. I tried to talk to him and he sort of stiffened up. This happens all the time in our schools. I told the administrator, “You should not have been doing that.” She said, “I am doing it because I get so many complaints from all the
teachers because he is constantly misbehaving.” I said, “But you can’t do it.”

The irony is that there were posters up in the same school saying ‘Be humane and respectful to the child’, ‘Every child is your child’. And then we talk about social-emotional learning! I told her, “There are teachers upstairs who are hitting children.” She was ready to take them to task. So I said, “You are also doing it.”

I don’t mean to be facetious – the point I am trying to make is that most of us who are educators and teachers in a school are not even alive to what regularly happens. We are quick to defend or attack. This ability to live with these contradictions in our schools is very, very scary. Increasingly, as I grow older, I feel that that’s a really big problem in our country.
**Bala:** One, I wonder if it might be a good idea to have some sort of a loose definition of what socio-emotional learning is.

Secondly, one does hear quite often this idea that socio-emotional learning must not be treated separately from the other academic aspect. It might help to dwell a little more on what we mean by that. Is it about understanding these things as distinct? Is it about the way in which these develop in a child? Is it about the way in which these are assessed? There are so many possibilities.

Thirdly, the importance of the environment. When we say that there’s no point in trying to really assess socio-emotional learning when the environment is not conducive to it, I wonder if that is preferential to socio-emotional learning. One could say the same for Mathematics as well. And then again, only when we assess we come to know where we stand.

**Rohit Dhankar:** I too didn’t understand what we mean by socio-emotional learning. How is it different from what you call scholastic or academic learning? What could be the different ways of measuring it? For example, the examples Vishnu showed looked like academic learning to me. A child knows when to throw garbage or not, and where not to throw it. So I don’t understand what this socio-emotional learning is, though I don’t mean to deride it.

My second confusion is that whatever it might be, why can it not be learnt if the school is very harsh. Do you think the Spartans could learn something about social ways of behaving and emotions, in spite of their schools being extremely harsh? Do you think that if a teacher has a stick in his hand, then children are not learning fear? Isn’t fear also a part of the socio-emotional learning that our society wants? Maybe our society does want children to learn to fear authority.

The third thing is that all the speakers have been talking of socio-emotional learning and also of skills. If I understand correctly, respecting someone as
an understanding and knowledgeable person is a socio-emotional or social behaviour. But is it a skill? Can I learn it as a skill to respect someone or show friendship, or be kind? Skill seems to me something to be directly taught, and which you can do or not do. You have the skill of climbing a tree but you decide not to climb the tree. But do socio-emotional skills mean this kind of thing?

**Devika Nadig:** Maya, I also don’t see the difference between what you are calling social and emotional learning, and academic learning. Since you referred to Martin Seligman’s list of 24 character strengths which I have gone through in detail, I know that Seligman talks about which ones you would like to bucket as social and emotional. But he also, for example, talks of ‘love of learning and wisdom’ as a strength. Where would you put that? And if you say it’s an emotional skill, which to my mind is emotional objectivity in dealing with the world, it is about self awareness. Then it all goes back to knowing one’s strengths and weaknesses, which again becomes a skill learnt through academics.

So there seems to be a huge mix-up about what social-emotional skills are. But my question is, has anybody really done a listing these, even if we were to concede for a moment that they are skills? Seligman’s list is there. There is Peter Senge’s list which we came across in Schools that Learn, where Art Costa has detailed some 24 intellectual behaviours, which I use all the time when I am getting teachers to understand that there is something beyond which you can see in a child during CCE (Continuous and Comprehensive Evaluation). Even there, there are attributes you can say are academic skills. For example, he says that persistence is a skill to be cherished, pursued and practised, and that a sense of humour is an intellectual behaviour. Is there any other listing done?

A last question is, even if we recognise that these are skills, has there been any thought about how are we going to teach this in our school curriculum?

**Maya:** What constitutes social-emotional learning? And wouldn’t all learning be seen as cognitive or academic learning? Actually, yes. Everything happens in the brain, so everything is cognitive in that sense. But what comes in the domain of social-emotional learning is self awareness, and there are various characteristics or indicators that would demonstrate it. Then there is self management, ability to work in teams, relationships, communication, decision making, etc. These are some of the broad themes under socio-emotional learning, which basically means managing yourself and managing your behaviour with other people.

It doesn’t necessarily have to be connected with a particular academic subject. Of course, if you are teaching Mathematics or Science, or Language, you can
be nurturing self management, self awareness, the ability to talk to each other, deal with conflict, relate to each other... We are not ever suggesting that you should look at social-emotional learning as separate from other academic learning. These are some of the areas that can be worked with during a regular subject.

Regarding lists of behaviours – yes, there are various countries which have developed them. For instance, in the US, there is the Collaborative Academic Social and Emotional Learning (CASEL), which lists specific domains of social-emotional learning under self awareness, self management, etc. The UK and a few other countries have detailed them. They have also mapped them to different ages – what a child of six years is capable of doing as compared to a child of 12 or 14 or 18 years, etc. We have just embarked on that in India. If we know what they are, then a teacher in Grade 6 should be able to know what she should be nurturing, and what a child of Grade 6 should be able to handle as far as he himself is concerned as well as his interactions and relationships with peers.

Can ‘skills’ be ‘taught’? They can. For instance, when you work with children, you can teach them to sit in one place, to look at each other, to take turns, to listen to each other... And these are all aspects of social-emotional learning or development. I won’t call these skills, but they are things that can be learnt, in a social context. School is a social context. And if they are explicitly handled, then they are learnt in a positive way.

Now, about fear – it is a social-emotional learning, I agree. But is it a positive social-emotional learning is the question.

**Hridayakant Dewan (Hardy):** It is debatable. People may think it is, in some societies.

**Sonal:** To respond to Bala’s question, social-emotional learning, we are saying, is personal and social wellbeing. It is not only the social-emotional aspect but ways in which people respond to their environment, given their cultural, economic and social contexts. It includes the way we are trying to make sense of it through the NCF – looking not just at traditional social-emotional aspects, but how to be independent in thought, to learn and develop aesthetic appreciation and abilities, to be sensitive to others’ wellbeing, and to participate in democratic processes and social change. So it is an inclusive way, and it is difficult to see how the skills I was referring to were those of addition, or the mechanics of language, or of football and things like that. These are attributes that we think that children have. How do we create environments
that nurture these abilities?

A different way of responding to Rohit’s comment may be what we learn in Psychology, that there is a eustress and a distress. Some amount of stress always helps people to achieve whatever they want to do. Exam-next-day helps us to do that last minute cramming. But knowing that probably, if I fail and I can’t come home, I will have to throw myself on a railway track or off the bridge, that fear might not work too well. The way we, in our culture, think that fear is the way to respect authority, that would go. All of us have been in environments where fear has worked for us. If not for fear, we may not have been able to qualify for even the basic degrees.

So there are always two aspects to it. What I am trying to convey and to understand myself is how people take that fear. It is very subjective, a condition that can be positive to one individual and negative to another. So because we are talking about personal and social wellbeing, it is the individual’s interpretation of the environment and the situation, and how to try to deal with it.

Vishnu: I do think that even if the social-emotional environment – even if we have not defined it very exactly – is not very healthy, it might be useful to assess it. You might use grosser methods if the idea is just to give it importance. Now, to this very interesting point of debate – if this is really different and separate from cognitive learning – on the one hand I would say that they are very closely linked. But I would like to almost insist that they are a little separate. For example, in the Maldives project they wanted values and attitudes and such things to be assessed, so we were trying to understand what the key challenges in society were. One of the main issues in the Maldives is drug abuse. One out of two children at the age of 12 take drugs. Children who are very good in Science and Maths, for some reason – of identity, peer pressure, whatever – are more susceptible to starting the drug habit. This is evidence, or at least a pointer to the fact that they are two slightly separate things. You might be very bright in Maths, Science or History, but when it comes to a personal choice or coping with a social situation, you are unable to give an adequate response.

The second point, a very interesting one, is about skills. Is it a skill? I don’t think in the social and emotional domain, we are talking about skills. We are talking about the way we perceive things. The other question was, how do we actually teach this? I think there are ways to create those ‘aha’ moments or get people to question their beliefs about people or communities and so on. Yes, there is a skill aspect. How do you make eye contact, or how do you actually
learn to be a better listener?

There are coping skills, and sometimes we might have to start with skills even though we don’t understand what’s behind it. To take a simple example, why am I not going and beating someone – why am I counting to ten? We start with that, and if it stops at that it’s an issue because these things cannot be learnt by a skill. But that gives us the space to reflect further and change your world view. We facilitate that.

I do think that some of the examples I showed were not measuring academic learning. When we are asking a question about where we should throw garbage, the response is not something which is consciously taught or learnt. There is a sort of distinction.

Sindhu Mathai: This question is aimed primarily at Vishnu. I was wondering if assessment in this particular area would require a kind of paradigm shift in the way we do large-scale assessments. The examples you showed are multiple choice and close-ended. Would we need more constructed, open-ended responses to be able to assess? At least that, if not a more long term assessment from experiences which a teacher has over a period, at the end of which you come to some understanding, some sort of qualitative observation? Have there been any deliberations on this? Or would it be similar to ASSET (Assessment of Scholastic Skills through Educational Testing, a scholastic assessment suite developed by Educational Initiatives) and the kind of academic questions that we see there, easy to code?

Vishnu: There are a lot of tools which teachers and others could administer, but I would say that experts should be involved because it is a tricky area. For example, one of the issues that came up was that teachers, scholars and others kept saying that students and children don’t respect elders. You can’t have a question that asks, how should you respect elders? Or, what should you do when your father walks in? You have to deconstruct this and maybe, over a period of time, evolve something. You would need to define this, validate that with experts and have some kind of rigorous framework within which to do it.

Hardy: I am sorry, I am going to re-ask that question because I still don’t understand what we mean by social and emotional learning. The examples given were of the cognitive. I am not saying academic. I think you can make that distinction clear. For example, conceptualising that there are 30 people coming to the house today, I have to organise a party. How much material do I need? How do I create the sitting space? It is a cognitive situation.
Similarly, the response to the question about garbage is cognitive, arising from the fact that I believe in equity and democracy. The response that I can never throw garbage emerges from there. Then you take a pragmatic view that, well, I have garbage and I have to throw it somewhere. If no one is throwing garbage there’s no place to throw it. Then there is no alternative.

So it is a cognitive response to a certain situation that I perceive. The example of the stick is also, to me, a cognitive response. I am teaching a set of children who understand the language of fear. I have a course to cover. If I don’t carry the stick, then children make too much noise. It is much harder to explain to the principal that I was trying to be nice to the children. Therefore this carrying a stick and perhaps not using it – I am taking this position just for the argument – is enough to send the message that if you misbehave, I will hit you. I am not clear what social-emotional learning a teacher has displayed here.

The third thing I am worried about is the fact that when you measure these things, whom are you doing it for? What is the purpose, and what are you going to do with it in a country like India, with the kind of diversity it has? If you want to have a certain response to how I should behave with my sister, then I am actually studying a very difficult part of my life. I can’t go back home and start behaving in the way you would expect me to answer that question.

Also, the other questions, about respecting elders – all that we have been talking about still doesn’t make me understand what this term social-emotional means.

Vishnu: Let me try again, because I believe that the social and emotional thing is distinct. And it is linked to your question about what is the purpose of doing such an assessment – whether you do it on a large scale, or in a classroom, or through an interview, or whatever.

What are you basically saying when you speak of the emotional or social domain? At one level, you are talking of your ability to manage yourself in terms of your emotions or whatever, and at another level in terms of relating with others. So the whole point of such an assessment, or even getting into this, is to see what kind of choices you are making in certain situations. Are you aware that there are other choices? That would be the teaching or the pedagogy part. And then leave the individual free to make his own choices, when he understands that there are certain consequences.

Maybe the garbage example is not a great one. But if there is a question where you ask that if you failed in something, would you continue to study that subject, or maybe it is assessed in a better way, I don’t think it is necessarily checking a cognitive aspect. Maybe part cognitive, but not purely. It is rooted in a different part of the being, which is how you respond to something.
Maya: I agree with what Vishnu is trying to say. I think that there is a big difference. And I see it when some children who perform very well in Mathematics or Science or Social Studies or Language are unable to interact with someone else, discuss what they have learnt with a classmate and so on.

So if we believe that discussing, being able to talk, share, communicate, is important, while that too happens in the brain – everything resides in and comes from the brain – it is different in the sense that it is another part, perhaps, of our brain that processes that kind of learning. How do you handle conflicts? How do you build resilience so that when you encounter a frightening situation, you are fearful, aware of your fear, but also aware that you have choices and possibilities of handling it? That comes from a different kind of capability.

Sonal: Again, I don’t see a difference in opinion between how Hardy and we are stating it. When you are saying resilience or communication, it needn’t be resilience in the face of not being able to make friends and so what do I do? Do I just stay away? It is also about not being able to solve a problem and persisting, and coming out resilient from the effort I have put in. It is about communicating the thought that I have formed while understanding a chemical formula. How do I present my thoughts? All this can be done through decision making, problem solving, persistence, resilience, and then creatively making a model of a molecular or an atomic representation of that chemical formula.

So, though we usually see these social-emotional skills or attributes in terms of interaction with others, they are an integral part of who we are and how we approach things in life. Probably there is no confusion in my head, and therefore when you raise a question or you make a comment, it does not disturb me. Because when I am either trying to communicate my thought or initiate a conversation, I am already thinking in my head about what I can talk to you – what is my background and yours, how can I make my thoughts flow, and how can I articulate those into words that will make sense to both you and me? We have to see how to nurture and develop this in children, how to think differently.

Sharad Behar: Let us not forget that a school and classroom are social units. We talk about individual learning, but basically we are in a social unit. So to this whole question about their being different or not that is being raised repeatedly, I also would like to answer in my own way.
They may be the same, or they may be different – I am unwilling to enter into that debate. But there is a need to flag them separately, just as there is unity of knowledge but you have to also talk about disciplines.

So this whole issue of reductionism and holistic/gestaltic is important – whatever is happening is cognitive, social, emotional and many other things together. Nobody is trying to separate them. But if you are talking about assessment, about development, and you are only focusing on one, then there's a tendency to neglect others. That is why we are talking about different disciplines.

The main point being made is that it is important to underline that whatever is called purely cognitive or purely academic and scholastic, there is something either within it, or slightly different from it, which must be taken care of. Just as knowledge can come from rote, but we are now saying, no, it should not come from rote but by constructivism. The message being given is that it may be within it or outside it, but it must come out, be understood and assessed. Of course, assessment is difficult. None of you really spoke about assessment.

The second point I want to make, which is very important, is about the Sparta example. Hardy asked another question on purpose – what is the purpose? – and I am responding. Are you thinking about a particular kind of society? Education is meaningless unless you have a social vision. Are you looking for an authoritarian or a democratic society? On that will depend whether the Spartan method of school discipline is acceptable or not. One must be clear. It is not just an issue of debate – it's an issue of what you ultimately, as a person engaged in education, see as the larger social picture, where you are making education take you.

The next point I want to make is that there is a need for working on assessment. Instead of doing it this way, it is better that a really strong group works on this. How can that be done?

Finally, I am also trying to remind you of the Delors Commission. What does it talk about? It deals with an area that is neglected. It talks about knowing, doing, being together. To be together – which is what you are really currently talking about – and finally, to be. To be is again something else, which we normally ignore. And in my view, it is an area where there is a need for us to act.

Venu: I would like to respond to Rohit's and Hardy's questions, partly because I think they are very important and also because I don't share their scepticism (what I think) about it – not fully, at least. But I do feel that we haven't asked the questions clearly enough and have attempted answers before that.

There are four questions that I am grappling with are. One is, what is an emotion, and what is an emotional state? The intuitive answer is very clear. But it has been extremely difficult to state that clearly because there doesn't
seem to be a kind of set of necessary and sufficient conditions to say what an emotion is. So, at best, we can give prototypes – like, fear, anger, happiness – and those answers have some problems.

The second question is, do emotions develop? And are they part of development? It seems, yes. But to what extent are they separate from other processes of development? Specifying that seems to be extremely difficult. Therefore, answering the question ‘What is emotional development?’ has proved to be difficult. For instance, is emotion a category like intelligence? We were all very clear a few decades ago that something called intelligence existed. Now people are not so sure. So ‘Do emotions develop?’ seems to be an important question because if we can have some idea, as educators, what emotions are, what emotional states are and whether they develop, then we can take a call on whether there is some connection between emotional development and learning. All development processes are not amenable to learning. For instance, a child increasing height is a process of development that doesn’t seem to be related to learning in a very direct manner.

So if we can understand what emotions are and if they develop, and then whether there is a connection between learning and emotional development, we will have a case for saying that education has something to do with emotions and emotional development.

The fourth question is, what is the connection between emotions, emotional development and learning of emotions so understood. By the social, and again, because the social is a kind of background condition for learning and education, what is that connection? Now, we have been conflating social and emotional learning repeatedly here, which I feel is a mistake. They are very closely connected, but we must again distinguish between social capacities and what we will identify as emotional capacities.

My suggestion is that I feel the answer to the question of whether there is an emotional development and whether schools can do something about this through the processes of learning they bring about, is yes. Unfortunately, I am very sceptical about external assessments – managerial approaches to assessment being applied to the social and emotional domain. I feel that if we can adequately define and specify what the answers are to the first three or four questions I suggested, they must be internal to the pedagogic process, and they are both a constitutive and a background condition for good learning.

Maya: I have been thinking about that. But with regard to assessment, I want to make a brief point that if you are looking at assessment in the context of social or emotional learning, I agree it must be in terms of one’s own personal
or social development. It can be self assessment, it could be peer assessment, it could be the teacher assessment through observation and so on. It cannot be external. However, if school systems are to be conducive to and nurturing of social emotional learning of children, then perhaps an external assessment could work.

**Lingaraj Dinni:** To my understanding, I don’t think there is a distinction between cognitive and scholastic versus a co-scholastic skill. I am not an educator, I don’t teach. But what I learnt in my own education was that the way people approach education itself is in a very scientific manner. But the same subject can be taught in a different manner. For example, in Civic Studies, you normally talk about the Constitution from the start – rights and duties. But if you teach what it is to be a good citizen yourself, that is a different way of approaching the whole subject. Or in Botany, you may know about calyx and corolla, but not the importance of diversity in the world ecosystem.

So the cognitive subjects can be approached in a slightly different manner in school to teach social and emotional skills. Unfortunately, that doesn’t happen in practice, and that is why we are debating about these skills as a separate domain. It is a part of the subjects we learn every day.

The second point is that while schools are obviously a part of the social construct, a lot of this learning happens outside the school. While I don’t have empirical evidence of the contribution of school versus outside school, the outside community – parent or community – has a significant role to play. I don’t know how a school can take the entire responsibility of making a change in the whole outcome of a student or a child.

**Jacob Tharu:** A couple of observations, since you are talking of assessments. There is a tradition in Psychometrics of distinguishing between maximum performance assessment and typical performance assessment. Personality, interests and attitudes are things that are a part of being. There is no right answer. This is the problem when you bring it into the scale of wanting to give the right answer or the wrong answer or whatever it is.

I think we have to do it in two stages. A lot of descriptive study of learning in the social-emotional area – not social-emotional learning – needs to be done, so we have an idea of our diverse population of children. What are the ways in which they change? What do they feel? We know very little about them. After that, maybe, some of us would be happy to say that they should develop in this direction. Some of us will be unhappy to do that. But it would be useful to at least know what children are like. Assessments overlook that point of view.
But subject to the various clarifications you made, the distinction between maximum performance and typical performance is very important. In typical performance, we have to be careful about social desirability. It is the easiest thing to say that I don’t have a caste prejudice – let my daughter marry somebody from another race or religion if one wants to find out. But these are methodological. If you are talking about assessment, these are some of the challenges which you should be aware of. But certainly, doing some assessment for the purpose of learning what the phenomenon is, I think is very vital.

Rod Hemsell: Contributing to the debate on whether social and emotional learning is cognitive or not, take a chance on this contribution which might or might not clarify something. Konrad Lorenz did a lot of work in this area and he decided that all learning behaviour is cognitive, and there is plenty of research to support that idea. So definitely, the boy Maya referred to in the principal’s office who experienced fear as the result of being struck and then freezing up, that student has learnt something from the experience.

But wouldn’t we say that the whole idea of education reform, which is signified by CCE, is about shifting the paradigm away from that kind of authoritarian learning towards a more self-initiated process of learning, and learning respect for others because of things which are shared on a cognitive level that are mutually valuable. Students cannot learn to share what is mutually valuable with an authoritarian figure because that person is always going to be imposing the point of view that they want the student to represent.

So it seems to me – as you said, Vishnu – that academic, social and emotional are not separate. And I believe, on every side of the fence, we all agree that they are all happening simultaneously. The question is now not that. It is, what is the quality of the social and the emotional and the academic learning which is taking place? And is it contributing to a democratic future and a future in which human beings are more responsible and respectful, and understand relationships as well as principles which they learn from science? Wouldn’t you agree that this whole debate is about a paradigm shift in education, in the structure of relationships?

Shivani Taneja: What I understood is that calling it social and emotional needs to be re-thought, even though you have been working on it intensively. But when my thoughts were coming up on it, I was thinking that things like what Beharji said – what kind of a society you are making – that is also important.

I am sure it is important to all of us, but it is the terms being used that are bothering some of us, I think. Because, I remember, at one time we were talking about how children should be learning concentration. Carpentry teaches you
concentration. I remember Rohitji taught me that about eight years back. So children should have these values as something that we all believe in – having confidence, having concentration, learning hard work... So are these emotional? When we talk about personality, I think it covers more areas. So even when we talk about self-management, decision making... even those are – I am using the word again – skills. So we need to be careful. What doesn’t necessarily fall in these subjects, these are more values within us, something that we all may be talking about. Also to be sure that each one of us has a different personality and we don’t want to force the same personality on everybody. So we don’t want everybody to be the ones who are leaders. I am not saying that leadership is a bad quality. Leadership is a good quality. But we don’t want everybody to be speaking in the same way, being confident in the same places – maybe somebody is confident somewhere else but somebody else is supporting somebody somewhere else in some form. So different attributes have to be nurtured, supportive to each other. So I think when we are talking about this, we need to be careful – especially if it is a new area and an area where everybody is not still fully working on, from tomorrow onwards, we will be really getting into data and those kinds of surveys which are not education. Maybe tomorrow we will have more discussions on it. So I am sorry I am making a pre-judgement on it, but my bias is from earlier.

If we are talking about education in a larger meaning, a larger purpose of education, then these discussions have to be in the classroom, and in the assessments, but under terminologies that are clearer for all of us. Maybe each word will need a long write-up of about, as somebody said, 800 pages or something like that. Also I was thinking that if we start saying these things, then we will be more...

I will take the most recent example of the Riverside School. It was nice to see children helping out the Umang children – it generates and encourages sensitivity. But if I come from an organization that works for the underprivileged children, and when children from an elite or a middle class school do it, I feel a sense of, “Okay, we have done good for the poor” – which is something which we don’t want to encourage. So it is not creating equity. It is not creating the feeling that these people can give us something back. Maybe it has been done and hasn’t been covered as the key message in the film.

So what are those 10-20 values that we are trying to encourage? Maybe one thing is encouraging one value, but another value is coming behind it. I think it is good that we had this session at this time, just as a reminder for all of us that we need to talk about these assessments. And like Sir said, any strong pedagogy would have these values. I mean, in this school (Centre for Learning, Bangalore) there are no children, but you can see those values. You can see that children value cleanliness, you can see children value nature. Those values will also be there in a
Supriya Chowdhary: Do you really think fear can give us any positive outcome? If we look back at our childhood, what we learnt in a fearful environment we couldn’t learn properly. What we are learning now, we are learning in a more enjoyable environment.

Sonal: I want to clarify that in no sense was I trying to say that fear was okay and only that helps learning. I will retract and say that at some point in our journeys of life, we also need to learn to cope with situations that are not seemingly positive or expected. Learning to cope with those is also a kind of attribute that we need to nurture.

What I was saying was that we learn that for optimum performance – and people might agree or not about the stress theory – there is a way in which it is articulated. It is that performance of an individual that comes when stress is at the optimum level. Some amount of stress builds up when the individual performs highest, and if the stress continues, the performance goes down.

So what I was trying to say is that learning to cope with fear also is a way of learning. All experiences are learning experiences. We learn that this works for us and that doesn’t. We do want children to learn in a free, un-fearful environment where learning is best. But at some point of time, we also want them to learn, if there is a situation they are afraid of, how to cope with it.

Vishnu: I think some of the points were very good. But a very clear definition is probably not there. I would love to hear what Venu has to say about emotional development. I have certain strong personal views, which are not necessarily backed by empirical research. There are certain things that are probably self-evident and there would be very little difference in the approaches. When we try to put these into constructs and debate them, it has a certain value but tends to show us as more separate in our views than maybe we really are.

For example, when we are talking of emotional development, to me the larger part is distance from emotions. Are you overcome by emotion? Does it betray your full leverage of your cognitive abilities? To me it is very evident that emotional development is about distance from emotions, space, clarity, letting your cognitive facility function – and we all know about the reptilian brain and the neo-cortex and the amygdala hijack, so I am not going to go into all of that.
Fear is a label we have given. We talked about positive and negative aspects, and Peter Senge talks very clearly and lucidly about creative tension and emotional tension. Emotional tension is negative, it is baggage pulling you back. But creative tension could be a positive tension. So if we were able to make such distinctions, we might know what to encourage and what to try and manage. All I am saying is that we should get deeper into the research, define things clearly and so on, but sometimes we should also use direct insight.

The last point I want to make is about the way we talk about social vision or personal vision. The whole paradigm in which we are having this discussion is that every individual has the capacity for a personal vision, and if he were more strongly developed in an emotional dimension, he would have the capacity to make those choices, define a personal vision and make that choice. This is the way I would sum it up.

**Maya:** I don’t think we have talked about uniformity or sameness at all. We talked about how every individual can be allowed to be different and be acknowledged and appreciated as different if you are looking at a social context. I know Jim Tharu talked about learning in the social and emotional areas or domains rather than social-emotional learning. Perhaps. I see it synonymously.

While we are looking at assessments, we did not discuss so much about them because there are huge challenges if we are talking – as Rod said – about making a paradigm shift. There are challenges of teachers’ inabilities and limitations in dealing with themselves, their own feelings and emotions and state of mind, as well as dealing with other people and with children, in particular.

There is a lack of value attached to the whole issue of focusing on social-emotional development of children by the school as an institution, by parents, by society at large. We value marks, despite CCE, partly because of our Indian culture where the parent or teacher asks the child to do something and the child obeys without questioning. Teachers continue to think that a questioning child is a disobedient child or an undisciplined child.

Of course there are exceptions. It is possible to walk into a school to see if it is a nurturing place for the social-emotional dimensions of a human being. We don’t have to be experts to know it. They are intangibles, but you can make it tangible, visible. We can make the culture of a school visible.
Nimrat Kaur and Neha Lal works with Azim Premji Foundation (APF). APF is a not-for profit organisation that has been working for more than a decade now towards making deep, large scale and institutionalised impact on the quality and equity of education in India, along with related development areas. Nimrat and Neha presents the ‘Framework for Teacher Excellence’ developed at APF and the approach and ideas about teacher professional development that guided their work.
Nimrat Kaur: In August 2010, the Justice Verma Commission Report spoke of teacher audit in the hope that it would lead to teacher effectiveness, resulting in enhanced effectiveness of schools. Why teacher assessment? Basically, to determine how a teacher is performing in various aspects.

There are a lot of things a teacher does besides teaching and learning – what are they? How do we assess her current state of functioning, thereby identify her needs, and develop a plan to improve her functioning? What should be the bases of interventions for teacher professional development?

**Scope of teacher assessment**

- Determine current state of functioning in various domains of teacher practice to develop individualised development plans
- Serve as basis for designing interventions for teacher professional development
- Serve to take decisions regarding teacher professional advancement

One would be the framework that teachers practice in various domains, so we know the next level of functioning and design the interventions more scientifically. Also, decisions for teacher professional advancement can be taken on the basis of teacher assessment.

Ours has been a progressive journey, not always linear, with lots of ups and downs, but essentially a combination of secondary research and best practices, both internationally as well as in our country. Data on teacher practices is gathered from the field in terms of observation and interaction with various stakeholders. All this data was grouped into domains and into a developmental continuum. Most critical for us was validation. This was done both internally – with the collective experience of the Azim Premji Foundation (APF) – and externally through workshops with various stakeholders, and
interactions with experts and academicians.

We are currently at the stage of tool development and field trials. Tool development has been difficult because, since the framework is holistic, it looks at various domains of practice, apart from contextualisation. Just as there is a need for contextualising learners – their teaching and assessment – the same holds true for teachers.

Here is a sampling of stakeholders from Mandya, Bangalore, Udhamsinghnagar, Sirohi, Abu Road, Dhamtari and Delhi:

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers in government schools</td>
<td>90</td>
</tr>
<tr>
<td>Teachers in alternative / private schools</td>
<td>39</td>
</tr>
<tr>
<td>Head Teacher / Education Administrator</td>
<td>17</td>
</tr>
<tr>
<td>Community members / Caregivers</td>
<td>36</td>
</tr>
<tr>
<td>Learners</td>
<td>88</td>
</tr>
<tr>
<td>APF members</td>
<td>71</td>
</tr>
<tr>
<td>External inputs (SCERT / DIET members, other organisations)</td>
<td>20</td>
</tr>
<tr>
<td>Total number</td>
<td>361</td>
</tr>
</tbody>
</table>

Essentially, it comprises teachers, head teachers, educational administrators – which could be CRCs / BRC (Cluster Resource Coordinators/Block Resource Coordinators), community members, caregivers, learners, foundation members and external experts. Teacher educators come under external inputs – like SCERT (State Council of Educational Research and Training), DIETs (District Institute of Education and Training), teacher education institutes and external experts from Jamia Milia Islamia, NUEPA (National University of Education and Planning and Administration) and NCERT (National Council of Educational Research and Training).

Neha Lal: I would like to clear the context that we are not claiming that, based on our work, we will be setting up any national standards. Rather, the attempt is to bring together all the work that teachers are doing already, day in and day out. The point is to acknowledge it, structure it, and allow teachers to see what is best suited for them.

The domains we have thought of where the teacher functions, are: relationship with students, assessment and evaluation, teaching and learning, contribution to the school, and relationship with the community. At the foundation
Structure of the Framework

Domain 1

Indicator 1
Baseline teacher

Indicator 2
Developing teacher
Proficient teacher
Excellent teacher

Foundation Domain has no levels of performance
of all this is teacher attitude and belief system because we believe that they guide all her actions – her thinking and her working in the classroom.

This slide shows the structural details. In the field, we have seen that there are people who will come up and say that they want to teach better. What does it mean to be better? We are not claiming that we're going and helping them in that sense, but at least help them to ‘unpack’ it. The other frequent thing that comes up is that all our life we have been taught by the so-called rote method, and we believe it is the best. If something else needs to be done, what is it? The point is not giving straitjacketed solutions, but laying down options.

Within a domain, there will be certain indicators. This means breaking the practice down further to see how a teacher can go from a beginner level to the excellent level – basically, providing a development continuum. What we are sharing here is very technical. Depending on what we’re using it for, it needs to be adapted and simplified. Here is a glimpse of the domains and indicators.

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### Domains and Indicators

**FOUNDATION: TEACHER DISPOSITIONS**
- Indicator 1: Displays respect and concern for others
- Indicator 2: Commitment to development of self and learners
- Indicator 3: Vision and understanding of society, education and learners

**I. COMMITMENT TO PERSONAL, PEER AND SCHOOL DEVELOPMENT**
- Indicator 1: Engages in continuous self and peer development
- Indicator 2: Contributes to a holistic school life

**II. COMMUNITY ENGAGEMENT**
- Indicator 1: Understands the specific issues and concerns of the community
- Indicator 2: Makes a systematic effort to engage with community in education-related matters
- Indicator 3: Discusses individual learner’s progress with primary care-givers

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Each practice is broken down into various levels in a developmental continuum. We haven’t given any levels to teacher disposition because we believe that either it’s there or it isn’t. We don’t have the expertise to say what is to be done if certain dispositions don’t exist – that is a different ball game. It is not as simple as saying, “If you do this you will become more respecting.”
That is not the kind of thing we are looking at.

The idea is to map the maximum things that a teacher is doing in her everyday life. Even if she isn’t doing all of it, looking at something like this could make her think: Maybe I am doing too much of teaching and learning. Do I need to do something about community? Do I need to do something about my relationship with students? Teaching and learning is one of the pillars of the many things that a teacher does. There could be questions like “What does effective mean?” and what some terms mean – we have tried to unfold it in the various levels.

Having something conceptual is very good. But what we do with it is a different question. The body of knowledge we have can be used for various purposes. For example, we know that teacher training happens every year, and decisions about what the training should be often depends on the resource person available, the centre’s choice and things like that. What we’re doing would help identify the gaps and the possible areas where intervention might be meaningful.

We are also looking at self assessment, where the teacher herself takes the onus of her own development, rather than going with the typical checklist. Interacting with students in, for example, the pre-service domain in B.Ed. colleges and DIETs, we often find that the objectives of the course are not clearly articulated. Where are you heading? What is a teacher supposed to do?
Something like this can also be an end point of pre-service teacher education, so when you go into a school in a formal set up you know what to do.

In our field trials we have been focusing on individual teacher assessment, and development is inherent in it. It doesn’t leave the teacher saying these are your strength areas, these are your areas of improvement and these are the possible ways of doing it – it provides for handholding. Of course, it is also based on how enabling the conditions are. We see this as part of holistic school improvement.

In case anyone is interested, a lot of our work has been translated into Hindi so as to reach out and connect to people in the field.
**Rod Hemsell:** If I went to you for the system to evaluate teachers, do you have an instrument for that?

**Nimrat:** Yes. Based on the framework, we have developed a classroom observation schedule and also interview guidelines. Like I said, this is a very generic kind of a framework to allow for contextualisation. So there are interview guidelines for various stakeholders as well as guidelines for doing artefact document review and getting inputs from other stakeholders. We have also developed a self assessment tool based on this, in the form of rubrics which we have to try out. We would be happy to share it with you anytime.

**Devika Nadig:** In developing this framework, did you start from scratch? Did you actually go and observe teachers in the school, for instance? And for which, did you have a framework in mind already – in the sense, what kind of capabilities would you be looking for when you are observing teachers? Even if you have developed a tool, that tool will have to actually articulate what your idea or notion is of a capable teacher. So did you first articulate your own notion of a capable teacher and then see what is happening in the schools?

*The other question is, did you look at other available frameworks? There is the most famous one, Framework for Teaching by Charlotte Danielson. Did you look at that or any others before you developed this?*

*The last question is, what is the tool for ensuring that the teachers stay capable in the class. Is there an observation checklist, and could you share some details?*

**Neha:** The way we have presented our journey makes it look very linear. It wasn’t like that. Initially, we’d thought that we didn’t need to start from scratch – there was enough work done in many countries and we could perhaps borrow and contextualise. But when we developed the first version of the framework and did a field trial, to our shock we were not able to map
what was happening in the classroom because it was very aspirational.

The hard reality was that we really did need to work from scratch. We were mindful of the kind of work that has been going on in many Western countries, as you were mentioning. But we did realise there were nuances. Our work is largely based in government schools, and many issues were not being addressed in any of the existing frameworks – for example, relationship with the community, how you are getting students to the school, what happens if a child is not coming to school – is the teacher doing anything about it?

Our methodology is to develop the framework and validate it as a simultaneous process. So we go and observe teachers, have a running record of what they are doing and then, when we have a sizeable sample, look for emerging themes. Also, we did not have a very robust research design – like, go to 5000 teachers and then come back and analyse. We were looking at it more from a data saturation standpoint, because after a while we were getting very similar practices from our school visits and weren’t adding anything new.

**Devika:** Did you compare some of the other frameworks and then take this on?

**Neha:** Yes, we did that. If you look at it at the domain level, you’d say it is nothing different from what there is worldwide. But if you look at the finer nuances and the details within it, the differences will emerge.

**Padma Sarangapani:** What is the theory of development that you are using?

**Jacob Tharu:** We always talk about scales and systems in the abstract. What are two or three things that teachers talk about under self assessment? Not how good or how bad – what are the dimensions that would make sense to them if you ask them for self assessment?

**Nimrat:** I think teachers are pretty comfortable with this train of work. We are just beginning the trials for the self assessment tools we have developed.

**Devika:** This is the framework to see this is what I need to do. But what would you do to ensure that teachers stay capable on the job day after day, lesson after lesson? What is it that you would want to put into practise in the schools? It starts with recruiting a capable teacher. But once you do that and measure against the framework, how do you make sure that this goes on day after day?

**Neha:** I think you share some of the fears that we also have. This needs to be
driven by the school and by the teachers. It cannot be externally planted.

Secondly, we believe that for something like this to be sustainable and long term, it is important that the entire culture in the school supports it. We have come across teachers who are extremely enthusiastic and say, “Can you give this to us? We will take it on our own.” But other teachers didn’t want them to do better because they would also be forced to do more than what they were doing – all those politics. But we have to begin somewhere. It is obviously a good dream to say that the entire system is prepared for something like this. But our hope is that once there are some pockets of results, there will be more willingness and motivation to adapt and to adopt something like this for the entire school.

Nimrat: In fact, in the field trial that we were talking about, we realised there was no point in developing a report for the teacher without developing a report for the school. So until the school supports it, there is not much point in this.

Sunil Batra: I am concerned about the terms used – teacher assessment and developmental approach – because notionally, teacher assessment is to do with an external agency and is an evaluation method being imposed, while developmental is more about being able to reflect on your own life. It also connects with this – where is this the space for self appraisals? Unless you get opportunities for that reflection, you are not going to be able to see where you have been, where you are and where you want to go. In the same vein, how are you developing the developmental framework? What is it? And where is it emerging from?

Neha: Conceptually, we see development as a part of assessment and not as two separate things.

Nimrat: We believe that the framework will give a teacher the opportunity to reflect. We have simplified the framework so that there are three versions – a teacher can start reflecting within it until she gets to a point where she can reflect without any kind of structure.

Neha: I think a part of what you are asking is a function of process – where is the space for teacher self assessment, teacher self reflection etc. We are trying to develop some kind of grading for a school that doesn’t believe in something like this or is not ready. We need to build enough readiness in the school and in the system to gear towards this.

Vyjayanthi Sankar: Do you know that the HRD Ministry has developed a
Teacher Development Index in the last six months? The second point is, what is the purpose of this assessment? I think it is for ensuring that the teachers have a professional development programme, something that will help the teachers to do something better. Is that the purpose?

Neha: That is one of the purposes.

Vyjayanthi: If that is so, my query is that when I look at teachers practising, and from the student assessments we do, the issues with children’s learning are often to do with teachers – so it could be that the teacher’s content knowledge itself needs to be strengthened, pedagogical practices need to be strengthened?

Somewhere we shy away from the fact that our teachers may require this support. The whole notion of assessment is seen as negative. I have seen systems using assessment as a development path, like with our work in Bhutan. Is there any idea of looking into those aspects? When a teacher becomes stronger and more confident, there are payoffs in terms of behaviour and a much more approachable classroom climate.

Neha: Our entire domain of teaching-learning talks about giving importance to subject matter. One thing that may have been missed out is that this is just one level. Once this kind of needs analysis is done, then the next level is obviously to have on-site support, otherwise an assessment like this goes nowhere. It is simply an end. Also, from a tools standpoint, that is something we are looking at. But we haven’t decided what we will use for subject matter. For example, some of our work in APRESP (Andhra Pradesh Randomised Evaluation Studies) has used the EI (Educational Initiatives) papers.

Padma: What is the theory of teacher interaction, teacher practice and teacher change that you are working with? Is it Shrimaan? What is informing the way you are visualising how to talk about teachers and initiating a change?

Another concern that I have is that there is a certain kind of homogenisation of what we consider good teaching, and I find that very boring. Teachers are good in very different ways. I fear that we are actually suggesting that everybody should be doing everything, or that these are the only things to be done to be a teacher. How you are going to address that kind of problem? How have your classroom observations actually led you to come up with this kind of a rubric, or this framework that you are using?

The last question is, are you saying that this is an assessment of the teacher, and no matter where she is, this is what she will be? If this is how your instrument is structured, how do you factor in that teachers are what the institutions make
them? And how does that then get captured in this teacher assessment?

**Nimrat:** The very fact that there are domains was a consequence of our need not to homogenise, because having various domains of practice means that I might be very good at connecting with the community but I might not be doing so well in some other area. We report at the indicator level because we found that even within a domain, teachers were doing different things for different indicators. The third thing is that this is very generic. You saw it in the indicators yourself. There can be various interpretations through this, leading to contextualisation. As far as good teachers are concerned, we have a Teacher Excellence Programme in Rajasthan. We have observed those classrooms as well as others, so we have seen a range of teachers. We have been conscious of that.

**Neha:** We had, in our minds, very consciously not tried to homogenise teachers – you don’t have to do all these things in this particular fashion. If you want to become better, you select from wherever you are, you decide what can be the next step. A third person isn’t telling you what to do. We haven’t really taken a theorist or a theory in terms of formulating this. It has been a very, very evolving concept for ourselves, even in the way we have developed it. We didn’t affiliate ourselves to a theory of teacher change and therefore this came up. But we realised teacher reflection is important, and her ability to be able to see her strengths and where she is going.

**Rukmini Banerjee:** Mr Dhir Jhingran has a very interesting study of teaching in 1st and 2nd Standard classrooms. We at Pratham did a very narrow exercise on trying to understand teaching – which may be different from teacher – in the study called ‘Inside Primary Schools’. There we found that really engaging with teachers on how they interpret children’s work was quite useful. I don’t know whether that is part of your domains.

**Neha:** All our work in APF centres around the teacher, and we have been always saying that there is a need for better teaching. What is better teaching? Is it what you and I think? It is not outlining and prescriptive. But surely, it is putting some thoughts together. People are free – teachers are free – to add to it. That is the way we are thinking of taking it to the stakeholders. This is what we have come up with, talking to stakeholders and looking at the literature. But teachers are very welcome.

If you are an excellent teacher, one of the points there is that teachers start articulating what is good teaching according to them and then therefore they populate this further. But for someone who is not very clear where she is,
there needs to be some starting point to it. We cannot always be idealistic and not suggest anything.
Vyjayanthi Sankar was (at the time of the event) Vice President for the Large Scale Assessment group at Educational Initiatives (EI). Vyjayanthi has led many large-scale learning achievement studies in India and outside, some of the most prominent ones being ‘Student Learning Study’ across 18 states (with support of Google), the ‘Annual Status of Student Learning’ in Bhutan done under the aegis of the King of Bhutan and the ‘Quality Education study’ in partnership with Wipro Applying Thought in Schools. Vyjayanthi shares EI’s experiences and perspectives on large-scale assessments.
Our experience at EI with large-scale assessments can broadly be classified into three main types.

One is Cross-Sectional Studies, which are done horizontally across different states or districts. For example, the Student Learning Study was done across 20 states of India, covering about 48 districts and 1.6 lakh children in government schools, and was commended in the 12th, 13th and 14th Sarva Shiksha Abhiyaan joint review mission. Another such study is the Quality of Education Study, 2011.

The second type is the Longitudinal Study, where you look at a system and a reform continuously over some years – like the work in Bhutan that we have been doing for the last five years. Every year children get tested, and when you track it you find a lot of systemic change. We have also been involved for a year with a project called Gunotsav with the Gujarat government, where we are looking at how by focusing on learning outcomes we could improve the system. In the School Excellence Programme that we are doing with the Mumbai Municipal Corporation, we have six other assessment partners.

The third is Impact Assessment Studies, which could be typical base-line-end-line studies to understand the impact of an intervention, maybe by an NGO. The Randomised Evaluation Study of Andhra Pradesh falls within Impact Assessment, but it is also a Longitudinal Study because it was done for six years, supported by the World Bank, Government of Andhra Pradesh, Azim Premji Foundation, Harvard University and EI, tracking the same children in the same schools year after year. It focused not only on learning outcomes, but on using learning outcomes and the impact of different interventions. Randomised trials were conducted to check whether teacher incentives and input grants work.

The type of study designs the type of assessment we structure. Each would need to have a different design and objectives. For large-scale assessment you first need to keep its objectives in mind. It could be to select the best, like for admissions or appointments. Here the assessments focus on the individual. Or it could be a screening test where you want to see which level a child belongs to. For example, if you have out-of-school children and have to mainstream them into the school system you need to know at what level they should begin. For such cases we design something like a screening test. If it is for diagnosis, you need a very detailed strength and weakness profile, so we design it differently.

If it is to select the best, the difficulty would be the level, and even that difficulty would be different. For example, the IIT-JEE exam would be different.
from a board exam which is typically at a lower difficulty level because the system wants the maximum number of people to pass. For a screening, you would have multiple classes and multiple distributions overlapping. How do you set the difficulty in that case? If it is for a diagnosis – and most of our large-scale assessment studies fall in this pattern – there has to be a normal distribution where you get information about low-ability as well as high-ability performers.

Similarly, large-scale assessments too have to be classified and would differ depending on the purpose of the assessment. If it is just to blow the whistle, to tell the system that things are not okay, you would want a quick and ready snapshot. If you have to give a detailed granular feedback to the teacher on what is going well or not with every child, you design it differently.

In the design for the base-line-end-line programme where impact is evaluated, the end-line cannot be too different from the base-line. So you have similar and identical items, apart from other considerations. If you have to generate benchmarks, you need to see if the entire curriculum has been covered and there are enough questions in a particular skill. These are just pointers to say how the objective of the test would determine how the assessment is built.

One of the confusions we come across when we work with different groups is whether to do a census or a sample. A census is not really warranted unless you are looking at individual child tracking or a granular study. In the Mumbai Municipal Corporation project we did a census study, because the purpose was to give feedback to each of the 24 wards, with information about each child. So every child in Mumbai in Class 3 and Class 6, covering four mediums, was tested.

The most common confusion is between testing the child and testing the system. In testing the child, the concern is whether the question is too difficult or too easy and if it is within the child’s reach. For testing the system, the design would have a mix of all ranges of questions so that you are able to track the entire normal distribution. Often, one test tries to link too many objectives, which is not right. For example, you can’t do a student assessment but give a teacher promotion based on that. Different designs are meant for different purposes and the design should determine to what extent you can leverage the particular test.

How does testing help improve student learning? Just as weighing a cow does not increase its weight, testing does not improve learning – it should not be confused with intervention and follow-up activities. Also, how should we test? Some of our assessments are across 20 states, with about 15 languages
and different cultural contexts. So is it possible to have one common test for all?

There is often confusion between the role of large-scale testing and classroom testing. One does not replace the other. Classroom testing is what a teacher has to do. She finishes her curriculum and needs immediate feedback about what she has taught. But it does not give enough information at a policy level or show a larger pattern.

One of the challenges, which I would grade as system related, is that when we design an assessment we do not know whether to base it on the textbook or on ground reality. When we started our work in Andhra Pradesh in 2004 – that was the first time EI was working in the government school system – the textbook would be pitched at a particular level and the children were at a different level. So what do you go with to ensure that you get a normal distribution? Or there are inconsistency problems. In Uttarakhand, some Maths textbooks have English numerals, some have Hindi, and they could have different scripts. There are also some unexpected differences across regions – for example, the Gujarat curriculum does not have geometry at all, unlike all the other states.

Language can become a complication. For example, in some schools that we have worked with – affordable private schools in Andhra Pradesh – the child is taught four to five languages. It may be an English medium school, but the child might speak in Hindi, or Urdu, or Telugu. The teacher too communicates in a mix of languages. So on what do you base the test? There have been cases where in the same test design, the same horizontal format of the paper, the first column has had the Hindi version, the second column was in Urdu, the third in Telugu and so on, and the children could choose whichever language they wanted to.

In terms of student related challenges, there have been cases where we have tested Classes 1 and 2, which is not an ideal age for testing because even for a group oral test the children just look at you and you have to guide them. Then there could be form versus content issues – for example, filling in missing letters versus writing a word. A child may be able to write a word completely but may not be able to fill in the letters because the form is alien to him.

In government schools systems we often find that children are not able to read. As a result, we came up with a new version of a test component that we call a group oral. There is an evaluator who is trained to read out something in a standardised manner, pause for the child to repeat, pause again to check whether all the children have answered, and then go on to the next phase.
The NCERT, incidentally, is introducing that, though they are calling it an interactive item. The spirit of it is the same, to draw information about what a child with poor reading skills actually knows. The child may know how to do a Maths problem, but cannot read the instruction. We have to create that information.

MCQs (Multiple Choice Questions) are now largely accepted because of Kaun Banega Crorepati type of programmes. So even if you go to the remote areas, you find that children are familiar with ‘Option A/Option B/Option C’, whatever their mother tongue may be.

When it comes to design, what proportion of the assessment should be written and what should be oral? In the Andhra Pradesh project, there was a written component, then a group oral component where the evaluator reads out and the children answered and we gather the information. There were also one-to-one interviews, but the cost of these is very high. An evaluator can, at best, test five to six children in three or four hours. Whether that information adds value to what we already know needs to be decided.

Initially, there were no multiple choice questions in tests across the country. Everybody opposed it. Now it has gone to the other extreme. Governments want only that. We tell them we need some free response questions as well. We are also introducing higher order questions for conceptual learning.

The challenge in terms of psychometrics is in fixing the difficulty level. There are assumptions we would need to make for the normal curve and also look at the reliability of the paper. That means there must be a sufficient number of items so that the scores are reliable. We use modern techniques like IRT (Item Response Theory) during the test development stage, after the pilot, which checks whether an item just looks difficult for the child or is consistently so. For example, let’s say two children are taking a test and both of them score seven out of ten. One may have scored the seven by answering a few difficult questions, the other by attempting easy questions. The test score makes both appear to be on a par, but in reality the one who answered the difficult questions has a slightly higher ability than the other. IRT not only checks whether you got an item right, but also if it was difficult or easy. These two are put together in a formula based on which the parameters are fixed, and that is very critical to determine the ability level.

Generally, a large-scale test development stage would follow three phases. In Phase One, a situational analysis or the a-priori hypothesis is developed. We look at the textbooks, syllabi, curriculum and so on and start item generation. In Phase Two, we take the developed items to teachers to see how they work.
That is what we call phase validity. Then pre-testing is done – could be for the items alone, with two or three schools. Then we design the papers. This is when blueprinting issues are taken care of.

Developing Good Questions

**Importance of Learning Outcomes addressed**

**Measurement**

1. Metre is the standard unit for measuring ________
2. Division of length by a whole number results in ____
3. 5m + 2 = ____________

How long is the pencil shown in the picture? (Use the ruler shown in the picture.)

Ans: ___________ cm
In Phase Three, we do pilot field tests. These mimic the entire test process because for the data in a large-scale assessment to be good, it is not enough for the design or the paper to be good. It is how it is administered throughout. The end-to-end quality has to be kept standardised. So a pilot field test gives us information on what the issues in the field might be, whether it will work and so on, after which come the other versions – translations, validations, etc.

The other issue we face is about developing good questions. Often we have to take a call on how much of the test should be from or similar to the textbook and how much slightly different, though testing the same content. For example, in a typical textbook, measurement is dealt with as length, area, etc. whereas to check for learning with understanding, you have to position them slightly differently.

Sometimes, without any intention, you may end up designing and checking for a different skill. For example, in the chapter on ‘Levers and Simple Machines’, the teacher gave a question on balancing a seesaw, showing a picture of a seesaw with two objects on one end and three of the same objects on the other. This was to see if the child understood the concept of simple machines. The response was that the seesaw had to be balanced by removing one object or adding one – these patterns and combinations. When we asked the teacher if she felt that the children had learnt the concept of simple machines, she said yes. But then, what the children were really using was equality of numbers and had not really understood the machine. So we removed the objects, put a fat man on one side and a thin man on the other, and then asked the children to balance the seesaw. None of the children could do it – not even the teacher. I was travelling through Chennai and I put the same question to a vegetable vendor. I showed him a picture and he said, “Oh, just make the fat man sit closer to the fulcrum.” So the learning outcome has to be gauged differently, because the teacher herself is confused. Since we do everything by rote, we don’t go into the conceptual depth that is needed for application.

When designing items, we need to be very conscious of ability and age-appropriateness. A Class 4 question could be: Here is a box containing ten crayons in red, yellow and blue. Three of the crayons are blue and nine are not red. How many yellow crayons are there in the box? We have to be careful not to unnecessarily complicate things for the child.

Then there can be a lot of ambiguities. We took question samples from different papers to check for instructions. If a question featuring a square, a rectangle, a square standing on one of its corners, and a triangle, says Tick the square below, the answer could be either the first or the third. The child could
tick both. What happens if the child ticks one, or the other, or both?

When we worked with the Madhya Pradesh group, they had some open-ended questions like: Say true or false: There is no need to boil the milk. What is the purpose of asking something like that? In designing such questions, you end up with ambiguity.

Let us now come to testing outcomes. Here the teacher writes an example on the blackboard and asks the students to write a related word. For example, camel – camel cart. Once the child understands the pattern, he comes up with ox – ox cart, horse – horse cart, and donkey – donkey cart. There is no need for him to think. There can be the issue of testing too many outcomes. In a problem like 0.725 x 0.132 or ½ x ¾, the skill marked for the question is multiplication. But in reality, when you give a question like this, it does not test multiplication skills alone. It also tests knowledge of fractions and decimals – too many things in one item. We have to be careful about that.

A question where the skill was marked as Spelling said: Rewrite the given sentences in good handwriting. So handwriting skills were also measured. A lot of attention needs to be given to test and the item design.

When building items across so many languages and having to harmonise, we face a different type of problem, especially in the lower classes, where things are a little more complex. For example, in a Class 2 item on vocabulary, there is a picture of an owl and the question goes: Look at the picture and write its name. ‘Owl’ in English is a three-letter word of medium difficulty. The next format is in Hindi and also looks okay. The child can write ‘ullu’ which has a simple script, two syllables and no consonant clusters. But then the same gets adapted to Telugu, Tamil, Urdu and so on. In Telugu, this becomes ‘gudlaguba’, which involves four letters, a difficult script, four syllables and what is called samyuktaakshar or conjoint letters which children are not exposed to until Class 4. So a simple item like this may end up not being comparable at all. You want a paper where the feel and look is the same for all languages and more or less the same items are asked.

The other issue we face is when we use equivalent words from other languages. An item from Andhra Prasesh shows an illustration of a kite and asks children to write its name. They may write ‘galipatamu’, which is what it is called in Telugu – or the English word ‘kite’ or the Hindi ‘patang’ and so on, in the Telugu script. So how do you score it? Just because it is a Telugu paper, would you not accept words like kite and patang?

If we say ‘He started running’ in English, it looks like a simple statement for a child in Class 2 or Class 3. But in Telugu, which is what we call an agglutinative
language, the same statement becomes ‘Parugul-ankinchukunnadu’, written as one word. So what looks like innocuous in one language can become difficult in translation. These things have to be kept in mind when we compare the pace of learning in different states.

Another issue is related to comparable tests in multiple languages. In English, we may find a problem that says: Subtract 43 from 75. In Hindi, it changes to 75 se 43 ghatao. This tests students from different mediums but varies in difficulty because when we use the term ‘subtract’, the subtrahend 43 appears before the minuend 75, whereas in Hindi the order is reversed and we are saying take 75 and remove 43 from that. In subtraction, children are taught that the first number comes first and the second number comes second. So they would put 43 on top and 75 below it and try to subtract. So we have to take care that in different languages the difficulty level of the item does not change considerably.

Let us look at the possibility of another likely answer. The question is: Mohan cut an apple into 4 equal parts and ate 3 of them. What fraction of the apple did he eat? In Hindi, the same question goes: Mohan ne ek seb ko chaar hisse mein kaata aur teen hisse kha liya. Usne seb ka kitna bhaag khaya? Bhinn mein uttar likho. There is ‘bhaag’ and then ‘bhinn’, which is the technical word for fraction. If the translator had used ‘bhaag’ without understanding this, the child might have ended up giving the answer as 3 instead of ¾. These minor nuances are important when working in multiple language questions for the same test.

There could also be variations due to social, geographical or cultural diversity. I’d like to share an interesting anecdote. We had this item in Andhra Pradesh in our early days of working with the vernacular, when we would give detailed rubrics to code the marking of a child’s responses. We gave a picture of a parrot and the child had to write what it was. The rubric said ‘chiluka’, but the field called up with a problem. It turned out that most of the children wrote ‘rama chiluka’, meaning ‘green parrot’, whereas the paper was black and white – so they didn’t know whether to accept it or not since it was not there in our rubric!

Once, for Class 2, we had to do a test for colours. How do you do this with a black and white test paper? It is very difficult on a large scale. We had a picture of the vegetable lady’s finger, with its name written. The evaluator had to read it out and ask what colour it would be. According to the rubric the answer was ‘green’. A question came in from the field asking what to do because a child had answered ‘yellow’ – in Chittoor District of Andhra Pradesh lady’s fingers
are a little yellow. So you have to understand the context very well when you design the rubrics.

We ensure a good variety of boys’ and girls’ names, and actually count how many religions are represented so that exclusion issues don’t creep in. Cultural familiarity in terms of food, festivals and names need to be considered, as do issues relating to geographical diversity. A child in North India would probably have not seen a coconut tree and may be hard put to answer a question on it. Similarly, when you ask a question about the seashore to children in Rajasthan, it would not make sense for they may not have even seen it.

There could be minor issues in paper formatting, which many would not even consider to be an issue but they are. When we first had to do options for multiple choice questions, we were faced with the dilemma of whether we should write a-b-c-d in English, aa-ba-sa-da in Hindi or aa-ba-ka[?]da in Gujarati. In English, we sometimes give emphasis through capital letters so that the child does not miss the clue. But Indian languages have no upper case letters, and with some scripts you cannot even underline. Given the orientation of the Urdu script, do you write the number 27 as 2-7 or 7-2? How would the child read it? We found that you write it as 27 – only the text goes the other way.

The data should be such that there is analysis for meaningful dialogue and change. Often, we find that large-scale assessments get reduced to just percentages – like Bihar scoring 40 per cent compared to Rajasthan scoring 42. When it gets aggregated to that level, it is not useful beyond a point. Testing can improve student outcome as long as the granularity of the data is maintained and one is able to link what the child answers for different problems and thus connect the dots. Going beyond percentages is critical.

We also find that for large-scale assessments, if it is a large-scale study, we often pepper it with international items and so on. We tend to benchmark against other performances where we can, so that we get a relative understanding as to where our children stand.

Similarly, the misconception and common error analysis is very important. We need to know how many kids answered what, and certain graphs get generated. These graphs, which we call item response curves, indicate not only what percentage of kids answered what, but also which child answered which option. For example, if we have a parameter for the difficulty level in a test where option D is the correct answer, you will find that the lower ability children do not choose that and tend to choose options A, B or C instead. But as their test scores improve, you find that more and more children choose
option D. So you can sort of see the inflection point from which percentage or what ability level they start moving towards the right answer option.

I will not go into the sophisticated IRT curves. But basically, it divides the entire group into percentages of children at different ability levels – how many score below the 25th percentile, how many score between the 25th to 50th, 50th to 75th percentile and so on. It also checks what the child in the 50th percentile knows and what the child in the 25th percentile does not. Figuring out these things is very important for the stakeholders.

We also give what we call teacher sheets. This example is taken from the Mumbai programme. The same question was asked across different mediums and we actually found how many chose what option – A, B, C or D. We could see that across the mediums the doughnut charts looked more or less the same. The colours may have been different, but the concepts, the number of children choosing option B and the wrong answer options also remained more or less the same. We break down this sort of information and prepare a sheet for the teacher where we give this data and ask: Why did you have to ask this question? What do you understand from the data? What should you do about it in the class? What are the other resources you could look for?

We try to break it down to that level even when we do a large-scale study where, if we test 250 items, for 50 items which are identified misconceptions
we generate 50 teacher sheets and ensure that teachers actually use them in the classrooms. That is the next step in our reform.

Often when we work with different groups, we find they are at different stages in the maturity of measurement, or even in understanding measurement. In Stage 0, testing is done but there is little focus on learning. So it is just a rote and repeat process. In Stage 1, learning is mentioned but tools are not discussed. In Stage 2, tools are discussed, but we still do not get item-wise results. In Stage 3, analysis happens at the item level and we are able to track misconceptions, common errors and so on. Only after measurement reaches Stage 3 do we really move to understanding how children are learning. Large-scale assessment can be done in any of these ways, but only when it reaches the third stage can we say that it actually addresses learning.

I was wondering which areas we do not really have the expertise for in this country – or even across the world – for large-scale assessments. I would say the first is reading tests. So far there is not enough research on figuring out how to actually build reading tests. We all know that children cannot read. I was recently at a conference in Bangkok where about 30 countries participated. What surprised me was that all the countries from the Asia-Pacific region talked about children not reading. Again, they were only talking about decoding – the ability of the child to recognise the script. But we are not able to crack the problem. Research that exists often pertains to the West, where the languages may be different, not phonetic and so on.

So developing good reading tests which give us an understanding of the issues behind reading and what we should do to improve it, is crucial. Reading tests in Indian languages that are based on research could differentiate samples at different ability levels, miscues, etc. Large-scale assessment will be useful when it can give us an understanding of the types of learning and related issues, and that needs to take place here.

The second is what I would call a vertical scale, an advanced psychometric solution for determining expected growth class-wise. We have now launched a project, supported by Dell Foundation, across India in different school systems. It tracks children across Classes 3, 4, 5 and 6, trying to determine issues like whether a child who gets 30 per cent in Class 3 and 32 per cent in Class 4, or vice versa, has improved or not. We do not have information about learning improvement issues, and that is what this vertical scale addresses. It is a psychometric problem and the same items get tested, or anchored, across different classrooms, and then you check for and build a scale.

There is also not enough information on the non-scholastic aspects of
student development. How do you measure these? Is such measurement even possible? If you don’t measure at all, then how do you say that a child has to develop holistically? How do we ensure that yardsticks are given to the schools?

Lastly, testing is a costly affair if you want to standardise and have evaluators on the ground. What is required is the use of technology. Could we arrive at a place where a child is just able to walk into any kiosk and take a test like a blood test, understand what the issue is and then work on it? We must build online, scaleable low cost assessment solutions figuring out how to leverage this.
**Sindhu Mathai:** When you talked of translation and several difficulties with adapting to the cultural context, do you have a rubric in place now, just as PISA has for how translators should go about translating?

Secondly, taking into account debates on what quality in education is, I notice that on the one hand those who are interested in large-scale assessments and quantitative researchers tend to overly focus on numbers. And then you have the other extreme of the qualitative researchers who are not bothered about it at all. Have you also tried to see a sort of balance in the way you interpret your results along with some qualitative findings?

**Hridayakant Dewan (Hardy):** My question concerns the term you used about educational testing. In that, there are some objectives you had outlined. I don’t see the term ‘educational study’ in the entire presentation. I also don’t see the objective of understanding in the rubrics that you put up. Ever since we have started thinking about education, a lot of studies have been done to understand what it is, rather than to try and diagnose a solution – just to get a sense of, a better understanding of, the phenomenon. I thought I didn’t see it in the picture of the entire scale testing that we talked about.

The second thing is that in terms of the detailed granular feedback, we talked about whether the children can put in letters of the alphabet and so on. What is our understanding of learning as a process? How do children learn? Are there stages in learning? When you give a detailed granular feedback based on two questions, how do you interpret the data that you have for that particular classroom to be able to give a feedback to the teacher about the child? Because it is very difficult. Even very well designed processes which individual teachers use often miss the actual process which the child should follow.

The third question is about some of your examples and the arguments you
built from them – for example, the question about the scale. Why is it a better conceptual understanding to say that if I shift the fulcrum it will balance, rather than saying that I will add or subtract a weight from both sides? Then you talked about a True-or-False question as open-ended. How can a True-or-False question be open ended?

NCERT, incidentally, has been doing a lot of work on reading, and there are a lot of studies done across the world on the difficulties of reading and in the methods of teaching reading. So any test that looks at the problem of reading has to take cognizance of the fact that there may not be a method of teaching at all. So if there is no method of teaching, it is very difficult to actually come up with a test for reading. The absence of a test for reading is largely because of the fact that we have not really understood how human children learn to read. Therefore any test that we do will be a mechanical breaking up or decoding. And decoding is actually not at all important for reading – many people have already shown that. So all tests, large-scale or small-scale, that people are doing on decoding are irrelevant for reading. They don’t help or harm reading at all.

What I am also worried about is this over-emphasis on testing. I am a teacher. I teach a child in Class 2. Then I teach the child again in Class 3. I know whether the child has learnt or not. Now to start thinking about a question like whether 30 per cent in Class 2 and 32 per cent in Class 3, or the reverse, tells me whether the child is learning, is taking a very important part of my assessment of the child away from me, which is just by interaction with the child and tells me a lot more about whether the child has progressed or has not. It focuses too much on what that one written response, or what the scores of one activity measurement response give you, rather than my understanding of the ability of the child and my recording. So I want to understand how much emphasis should we place on testing versus a more comprehensive assessment of the child?

Vyjayanthi: Some of these questions will be covered in the upcoming panel discussion, so I will take up only some now. About translations and whether a rubric exists – yes. Even the translators are selected in a specific manner. They undergo tests and three or four independent experts give their views on the translator’s work. Clear guidelines are given about what sort of words can be used, to what extent they can adapt an item and so on. That could be a generic guide list. Then the creator of the item puts in a cautionary note about specific things to watch out for which get checked during the evaluation process.

About the quantitative aspect, you are right. That is why after a testing we go and interview the children to check what is actually happening in the classroom. In fact, this even covers Hardy’s point about whether we are able to
break down and understand the process in which the child is thinking.

As for Hardy’s question on the objective of understanding not being mentioned, in the diagnostic achievement test there is generally either an achievement test or a diagnostic test. That is how it is generally understood across the world. An achievement test would just give numbers – this percentage of 32, 40 and so on – while a diagnostic test would go deeper into issues. EI combines both these tests and when the items are actually made, we try to understand how the child is learning and understanding. That is misconception research. The purpose of large-scale testing is not just to rank – that is a minimalistic approach. The idea is to understand the patterns and what sort of learning goes on, and to diagnose the extent to which it could be remedied.

About the fulcrum balance question – in the Simple Machines section in Science, the concept is explained by saying that to balance, Load x load arm = Effort x effort arm. That is the equation used for the child to understand the concept. That means that the load arm and the effort arm are at a distance from the fulcrum. If you want to check if the child actually understands the concept, then you have to see whether the child has understood that the distance of the load or the effort from the fulcrum is what decides the outcome. When they use the numbers 2 or 3, the children are actually using their mathematical concept of 2 = 2, 3 = 3 or 5 = 5.

**Hardy:** But the load is changing. The arm is equal and the load is different.

**Vyjayanthi:** If the child has understood the deeper concept, the moment I remove the 3 and 2, and put in the thin man and the fat man, he still should be able to do it.

**Hardy:** That is a different problem. The problem that you posed here allows for both solutions and they have displayed both conceptual abilities equally.

**Vyjayanthi:** The idea is that if the child has really understood the simple machine concept, then he knows that in real life, if two children are sitting on a seesaw, you cannot remove the head or arm or something from a child, but he should still be able to figure out how to balance the seesaw. Although the concept may be right it still does not tell you, without any error, whether the child has really understood the concept, or is using some other concept to arrive at the answer. That was the point I was trying to make.

The True-or-False item that you mentioned was actually taken from a paper.
in Madhya Pradesh. The instruction given was not to make all the questions multiple choice but have different types that would give an understanding of the child's thinking. In the process, they designed these True-or-False questions. They are not really open-ended items but they called them that, and framed them in such an ambiguous way that a child could neither say true, nor false. I was making the point that we should watch out for this kind of thing.
Rukmini Banerji has been associated with Pratham since 1996. She has been a member of the national leadership team of the organization since then. Rukmini has led the Annual Status of Education Report (ASER) effort since its launch in 2005. Rukmini speaks about Pratham’s journey, how ASER came about and how they look at education reform and large scale assessment.
I was asked to speak on large-scale assessments, obviously the ASER. I will talk about its evolution because that is not so well known and might help to set the context.

I have been with Pratham almost from the beginning, and we had a very simple goal, which we still have – Every Child in School and Learning Well. The ‘well’ came in at some point and, as you can imagine, we would have long workshops on how to define ‘well’! But the main goal was ‘in school and learning’. You could be learning outside school too, but I think we all agree that it is important for your child to be in school.

We started off in Bombay around 1995-96. At that point, even in Bombay there were quite a lot of children out of school. One of the key beginnings was that both the founders of Pratham – Madhav Chavan and Farida Lambay – were university professors and had worked a lot with adult literacy in the National Literacy campaigns. It is quite typical that when you start with adults, you feel you need to work with kids, and then the whole circle.

The 1996 Bombay riots played a big role in the starting of Pratham. Madhav and Farida being Bombay people and having worked in Bombay slums with the National Literacy Mission, felt that there was something to be done, that we needed to start working with the families. Bombay was highly fragmented by the events, and it seemed like having every child in school and learning would be something that people would feel was worth coming together for.

Bombay, even then, had a relatively functioning school system. The Bombay Municipal Corporation (BMC) schools operate in eight languages, which is quite rare for any city anywhere in the world. Pratham saw a big gap in the pre-school area. In those days, the anganwadi structure did not really cover Bombay as much, and a large number of migrants had arrived there. Attachment to school would therefore be an important bridge. One way to get to universal primary education would be a universal preparation for getting into school – not just for the children, but also their families. That is where we saw we could add value.

Right from the beginning, the aim was not to supplant existing schools but to support and supplement them. That notion is still very strong within Pratham – that these schools that we have, the government schools, are actually our schools. They are paid for by our money. And therefore, as a citizen, it is important to be able to support what you’ve already invested in.

The notion of citizenship is stronger in Bombay than in many other places. The idea of strengthening an existing system that you support anyway, and of bringing families into this whole process was important from the start. So we
started this community based, low cost balwadi structure which fed into the municipal school systems – in many cases, also private schools – and through that network, grew a lot of the later strategies.

I joined Pratham in 1996. At that point, we had about 150 balwadis in different parts of Bombay. Two years later, we had 3,500 balwadis in Bombay. From this network came a lot of demands and desires. The community felt that we were doing a lot for the younger children but not for the older ones who didn’t go to school. But increasingly, especially in the more settled and slightly better off areas in the slum population, was the feeling that their children were going to school but the learning was not as it should be, though they couldn’t really articulate how it should be. The genesis of working both with pre-schools, out-of-school as well as in-school children happened at that time.

We worked large-scale with the BMC around 1998 – in every municipal school, with a community volunteer who supported what was happening. Even with the children in school, there was a sense that they were getting left behind, but not really clear exactly how. And of course, the ones out of school were left out.

We could see that there was one thing that really fuelled the children to go ahead – the feeling that they were learning, however we define learning. As soon as the children progressed and could see that for themselves, our bridge class times would increase, and slowly we would have at least as many hours as the school. The bridge class timings were slowly moved to school timings so they could then enter school without a big disruption.

How did the children know they had made progress? Like riding a bicycle, one of the key things you notice is that you fall a lot and then suddenly one day you don’t fall at all. It is not as if the day before you didn’t know to ride a bike. But there is a tipping point after which it is clear to you and everybody else that you are not falling any more. It is the same with swimming. You need to be working at it and then suddenly it becomes quite visible.

To us, as we were working with children, it seemed that this really was one way in which it suddenly became visible to people that you had changed. You felt like you were able to do a lot. And then you were able to bargain your own position within the family as well as within the school. Teachers in large, crowded schools liked kids who could do things on their own. Families that weren’t sure what this whole schooling business was, supported kids who showed visible progress.

We had close to a thousand bridge classes across Bombay. But a large part of it was in the Hindi and Urdu speaking areas, which are the bigger slums.
We felt a great deal of frustration because it was clear that we were working hard, children were making progress, but the progress was not adequate for a ten-year-old to have a real fighting chance in school. You work with a child for a year, he is able to read some things, do a little bit of maths. With reading comes comprehension, and he is beginning to write. But that is not sufficient to deal with what the 5th Standard requires. If you are not sufficiently prepared for what the school requires, the chances increase that you will not be in school.

Around 2002, we decided that we had to do something so children had a fighting chance to complete primary school and be well positioned to go further. We didn’t have the Right to Education Act then, and I still think that 14 years of age is not the right place to stop. You should at least finish high school.

Pratham was then already big, with a presence in several states. At some point in 2002 we decided that we would all stop doing what we are doing, and everybody would take a bunch of kids – 20-25, a number we could handle. We picked children who were at least eight, probably already in 3rd Standard, who couldn’t read fluently as yet. Across Pratham, we gave ourselves one month. It just seemed like the amount of time you could take off from all the other things you were doing and work with these children for about two hours a day.

To get an entire group of children on the same plane for reading, we used what is now known as the ASER tool. It really began as a way to organise ourselves and our work so we could communicate from the Hindi states to the Marathi states and others. We were trying a massive experiment!

We knew from the work we were doing that children were quite diverse in any group, whether inside school or outside. How do you get a handle on the diversity? Within Pratham, we had a lot of very committed people, but not necessarily pedagogically well trained. We noticed that we all had different groups. For example, my group had almost equal numbers of children who could just about read letters, some who could read simple words, and a few who could read a few words strung together like sentences. There were other groups where nobody could read even a single letter. So the instructional strategy I would use had to be slightly different from my colleague’s. This gave us a sense of the diversity of the children so we could translate it into some kind of instructional practice. We noticed that a lot of parents – generally the parents of children who can’t read are not very literate themselves – would ask what we were doing.
I remember an incident where my colleague, just to get on with the work, said we were doing a survey.” The mother replied, “No, this is not a survey.” I asked her, what is a survey? And she said, “A survey is that which I know but you don’t. But this – the level that my child is learning at – I actually don’t have a very clear idea about it. He does go to school, and he is learning, but I don’t know how much he has learnt. So what you are doing here is something about which neither he, nor I, nor any of you, has any idea. Whether you know anything or not makes no difference. But I ought to know.” I think that that is one of the best definitions of a survey!

There was a lot of parent engagement, especially when we were doing it out of school. That is why I feel that connecting the ‘out’ to the ‘in’ is really important. Parents would say, “This seems quite easy,” or “By what age should they know this?” We would tell them, any age is okay – our grandmothers can also learn. Anyone can learn, but they have to have an idea of what it is all about. Have you ever looked into your children’s books? And they said “No. We are illiterate. What good would it do us to look at those books?”

We saw from many, many experiences like this that, apart from the instructional strategy which evolved out of this, for the first time something was happening close to them where they could begin to engage a little bit. As we moved further, two things happened together. One is a kind of instructional strategy that emerged, which large numbers of Pratham-type people could do. By Pratham-type people, I mean an average enthusiastic person in a village or a slum who feels ‘I need to do something with my neighbourhood children who are not at the level at which I am’. Many of our volunteers are themselves products of the school in which they teach. Often, whatever training they have is what we give them. They are not particularly very well educated themselves and have all come out of traditional schools.

But more importantly, we felt that there was something new in which we could engage parents and community members, raise some discussion about what should happen, when and how, and who should be involved in it. The tendency to blame schools and teachers is not appropriate because our children spend more time at home than in school. If, in spite of having only three children at home, you are unaware of their learning level or capability, how can a teacher with 50 kids under her know everything about every child?

The big challenge for us seemed to be – whether we were working with children out of school or in school – how do we get this business of learning to have some real meaning and traction? Definitions can be fought about, but there is no question that learning should be at the centre of our entire
education system. What you are learning or how to learn it can be argued. But this era of only opening schools and only thinking about access is now going.

**Improving reading in school by teachers**

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We would do a very simple progress chart. Frankly, it didn't matter exactly at which point the children were on the chart, but we had to make a distinction whether they were clearly at the beginner level or at a slightly more advanced level. This kind of chart helped us, right at the beginning, to look at individual children as well as a group. In a large and a crowded country like India where our classrooms have a lot of children – now we have increasingly smaller and smaller schools which have other sets of problems – how do we focus on every child while not losing sight of the group? As a teacher, you have a responsibility to each individual as well as to the whole group, and it also lies in moving them all towards some goal you have set for yourself. It was also helpful to have discussions with parents about who was progressing and who wasn't. Sometimes you had to say, “I don’t know what to do. I’m teaching him but he’s not progressing at all.”

All of these things, focused on the individual as well as on the group, as well as movement over time, helped to have it in a way that I didn’t have to look at all these forms. These days, in schools there is this Continuous and Comprehensive Evaluation (CCE). The principle, I think, is exactly this – that the teacher must understand the child at the child's own level, and the child
must know where it is. But the formats are so complicated that you cannot come up with a quick summary feel of what you need to do tomorrow.

This is what – between the tool as well as a little bit of the tracking – helped us to move forward, and it is something everyone at Pratham automatically learnt. Children did progress with our intervention. I think that is really important. We don’t like people to train who have not themselves been able to achieve whatever the training says it is going to achieve – otherwise, it cannot spread.

A large part of our training structure in India is not like that. It is ‘I am an expert, I will tell you what to do’. And often, with SCERTs (State Council of Education Research and Training), when I say, let us try these ourselves, they say, “Where is the need for that? We are experts. We have taught before.” I think, at every stage, it is important to do some of it yourself, as everyone who was working in Pratham had done. Whether they could explain the pedagogy or the assessment or not, they could say, “Leave your children with me and come back after four-five days. Then you tell me if you see any change in them.”

This was also the time we moved to working in rural areas. There, we needed to understand the village, for which we needed to speak with each child and each family, because like a classroom, every village has a different composition. While the other compositions in terms of caste and other things can be different, there is also a great deal of variation in the level at which children are.

We realised something else. My own experience is mostly from UP and Bihar, so I can’t say what other places in the country are like but presumably they aren’t very different. A whole village is very big and quite fragmented. We often say that India has problems we can’t solve because it’s too big. A village too has problems, and that is also very big – about 500 households, which is a lot of children. But hamlets and sub-localities are generally not as big, and everybody usually knows everybody there.

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A video entitled ‘Catalysing Action in Villages: Mobilising Communities’, shows discussion in small groups in each hamlet.

Local people help in making an education report card of the place that focuses on whether children go to school and if they can read simple text and do basic arithmetic. There are ‘demo’ classes in the village for four-five days to show how children can learn to read quickly and do basic maths. Then there is a big meeting to discuss the report card, attended by parents,
villagers, village committee members, headmaster and teachers. Around 110-150 people attend. They agree on future steps and on what can be done in the village on the basis of which one can start action and track measurable changes in children’s learning.

This was very easy way to talk to people, by asking them to do something together. People would suggest that so-and-so children be called, to find out what levels they were at. Children would call each other and parents would have a good sense of what they were doing. We found that this hamlet report card was often a far better thing than a village report card. There is what I call the ‘paanwala’ method of assessment – which assessment purists will not like – which if you start doing in front of anybody, others will say let’s do it too. It’s not just that they are checking children’s reading and arithmetic. It is not even that they are checking. It is a good way to get to know the kid because the kid, as we are doing this interaction, is not only reading and doing maths, he is also doing a lot of other things. You also get to hear this kid’s voice independently. Very often, I have heard people say, “This is a naughty boy. We had no idea he knew so much maths.” It is a good way to get to understand kids, and a lot of people begin to help because it is quite straightforward.

In a big village this takes a couple of days, depending on how many people come forward to help. But it gets everybody talking and thinking about it, and about what they should do next. We were not doing this just to get some numbers or data. It was important to understand what to do next. We would have a village meeting in which all these things would be discussed. And then we would say, now what do we do next? There’s a lot we can do, starting with the option of doing nothing – that is also an option. India has six lakh villages. If you don’t want to do anything in your village, we will simply go to another one. At this point, people would say, “No, wait. Let’s think about what we can do here.” The first discussion would not only be about “What can be done next” but “What do we do next”. The traditional thing to do was to blame – the teachers, the sarpanch, or someone else. The real question was, is something to be done or not? If yes, who does what? If not, everything becomes very easy – we can all return to our homes... In this way, a whole programme would emerge.

At that point we were in the rural areas of at least seven or eight states. If I had to capture it into a frame, I would say that this is what we really learnt, from assessment to action.

One of the best illustrations of this was an actual incident that happened to
me with a pradhan, the village chief, in either the Sultanpur or Pratapgarh district of UP. We went to do this report card. Customarily, you tell the pradhaan that you have come to his village and ask if you can go ahead with your work. Pradhaanji says, “What is it? A survey? Go ahead.”

This pradhaan was not the kind to have a long discussion with. “Many people come here to conduct surveys. You too go ahead,” he said. He did not even look up. We went ahead with our work, and a lot of people in the village helped. We came back to him after some time because to have a village meeting it helps to say the pradhaanji is going to come. He said, “Are you done? Where should I sign?” In our format there was no space for that – we didn’t need a signature. He said, “What sort of data is this that does not need a signature?” and wanted me to ask my “senior officer”. I said I was the senior officer, and he said in that case where was my car, and why was I roaming around the village!

But we got his attention and he wanted to know what the whole thing was about. When we told him it was about whether children go to school or not, he said they did – out of 200 children, 158 went to school. He knew, like everybody did, about the out of school children. So we said, sure, and this is what follows – if we show this tool to a hundred children, only 50 or 500 will be able to read fluently. He said that couldn’t be, the data was wrong, because who on earth would visit 50, leave alone 500, homes to conduct a survey? They’d
do three or four and then sit in the teashop and fill in the rest. This was how surveys were conducted. When those around confirmed that I had been to all the homes, he still insisted that the data was false. If children were going to school, even if they weren’t learning as much as they should they were still learning. There was a teacher. So it couldn’t be true. We told him there was only one way to find out – to talk to the children himself. He finally did do a random sample, and after asking about eight or nine kids to read, admitted it really was true. But it took about two hours to understand that there was something we needed to think about.

Again, you have to be curious. You have a lot of data and reports, but if you don’t have a question, the answer is not helpful because you are not looking for it. How do you generate curiosity to figure out what the next step is? A huge accomplishment in India is that we now have schools almost everywhere. We have teachers, though they could do with improvement. We have textbooks, though they could be better and available on time. We have many of the basic things that we didn’t 50 years ago. Should we just say that this is what will make the difference, or be curious to see what else we can do?

Things like filling in CCE forms can, however, get very difficult. I too can do it enthusiastically for two or three children, but after that I need a tea break. To fill in 32 indicators for one child, in accordance with instructions I can’t really understand – and I am in this business, I do this all the time – is a bit unrealistic. So, for engaging large numbers of people who need to be engaged, things have to be straightforward and the ‘aha!’ moment has to come very quickly. That doesn’t mean we do a shoddy job, but that it can’t take three whole days to get to the meaningful part of something.

How do you make the information easily digestible? Anecdotes have great power. How do you convert an anecdotal aggregate and bring it closer? The hamlet is probably the right place because there you actually know all the individuals. If you have done the survey yourself, then anecdote, aggregate, and your experience, all blend to create something that you believe in. The faith is also due to the fact that it is something you have created. Generally, you don’t blame yourself for anything. You don’t cheat to yourself. How do you move from this anecdote – which is powerful and shapes our perceptions – to an aggregate which is based on a system?

The next big thing is, what do you do now? At least in UP, I have almost timed it, and it takes 40 minutes. You start with the British, then you blame the politicians, then the textbooks, and then you blame everybody. The people blame the teachers, and the teachers blame the parents. There is only one person
who escapes the blame. You yourself. Everybody else in India is to be blamed for everything else. So you allocate a 45 minute session for the blaming, then come to what do we do? One option is to do nothing. Nobody is under any compulsion to change the world.

There is inevitably someone from each group who wants you to tell them what to do, and then they will consider if it is possible or not. Which is where the instructional part of it comes in, when you say we cannot do anything more in your village, but we can share our personal experiences with you, show you things and spend two-three days with you. Beyond that, these are your children and you do something about it. Understand everything first and then do as you please. Then begins the demand from the government and everybody else about what is to be done. Yes, we need adequate numbers of teachers, well-trained teachers. But until then, should we simply sit back and say that if our children are not able to cope, then just leave them alone? We too need to make an effort.

Catalyzing action in schools : Energizing the education system

Two Pratham team members spoke to the Cluster Coordinators in Mokhada and Igatpuri blocks in Maharashtra.

We “told our story” and requested CRCs to try out our approach – pick children from Std 3-4-5 who cannot read fluently and work with them for 1-2 hours a day.

CRC ran their own “practice” class for 15 days.
They reviewed their own children’s progress and decided that the method works ...

Each CRC “trained” their own teachers.
Two Pratham people also helped in the block.

External evaluation done by the teacher training colleges in the block.

Assessment was the first step in understanding the issue and in planning the action.

Significant changes in children’s reading

Assessment was integral to understanding if anything was changing and in figuring out “what works”.

Mokhada clip

Schools obviously have to be catalysed. We went to the Maharashtra government because we are originally a Bombay organisation and one should do something on one’s home ground. We said we had something that would enable children to read with ease. They wanted to know who our pedagogy experts were, and we said we didn’t have any. Our people had taught children,
and we would move on with whatever they had learnt from it.

They gave us two tribal blocks to see if we could do anything there. This is also very typical – if you want to do a pilot project, go off to some place where no one has gone before. So we went there and said all we wanted was one day with the cluster coordinators. The two blocks were Igatpuri and Mokhada. Mokhada had 15-20 cluster coordinators, who said, “So tell us, what is your story? You have come so far, from distant Bombay, you might as well tell us and we will give you some good lunch afterwards.”

We told them what our experience had been, what we had done, and requested that they try it out in their schools for 15 days. Not for the whole day but for an hour or two with the same kind of kids – from the 3rd, 4th, 5th Classes, who couldn’t read yet. We said we’d meet again after 15 days, and if they felt that there was some potential in it, we’d discuss it further.

I don’t know exactly what method they followed. They certainly did use this beginning assessment tool. No matter what method you use, if you put your mind to it, children make progress. There are a few elements – you must understand each child, speak to each separately, ask every child in the class to come and sit with you for a couple of minutes while you see if they can read. Very often, children who have already been so-called tested will say, “Please test me once more. I want to sit by your side.”

If you do all this, and have a goal in your mind to make progress, no matter what method you use you will feel there is some progress – and there actually is progress. After 15 days when we met the CRCs (Cluster Resource Centre), they had many thoughts – we won’t do it this way, we’ll do it that way, add this to your tool, add that, why don’t you have conjunct letters, and so on. The cluster coordinators shared whatever their experiences were and we shared ours with them. The cluster coordinators shared it with their own teachers. We were keen for some external view on this. So they invited their local teacher training colleges to come and do a kind of a baseline and end-line, in a very simple way. There was substantial progress, which to me was not surprising because the whole thing was designed such that you focus on every child and take it forward.

This is what led, eventually, around 2005, to ASER. The macro scenario was important. There was a new government, and I think the education cess started around this time. There was a lot of talk about outlays to outcomes – money was being put aside. Yet there wasn’t anything new coming out of the government other than on enrolment numbers and input-related measurement.
We had an annual planning process which was supposed to be done in every district, into which district level variations on what to do in the schools could be brought in. That is when we decided that if, in our experience, we felt that this kind of approach had helped more people to start thinking about learning, more discussions on what learning and learning well may mean, then it needed to spread out far more, just to get more people thinking about next generation issues. I don’t think these are next generation issues. It is just that, as a very large body, we have focused on getting the basic inputs in place for a long time. People have always been worried about learning. But I would say, at the macro policy level, the focus on getting inputs in place has been much stronger than anything else. And then followed what you may already know – ASER.

Decisions had to be taken about sampling. Our experience was that even when you work in 180 districts, that is too small for India. If we felt that some of this was the beginning of traction, then we should think of the whole country. But 575 districts is a lot. At the district level, it wasn’t easy to find a group of people who would participate in something like this, which is actually a weekend activity with two or three years of training. We didn’t have much money to give – a big problem, but later on you feel glad because a lot of people joined who wouldn’t have, perhaps, if there was more money, or the wrong kind of people may have joined who did it for the money rather than for the passion.

In district after district, whether in Kashmir or Nagaland or wherever, I saw mostly young people come forward who hadn’t really seen much of their district. During feedback after the survey was over, they wanted to tell you how their district had villages which took 12 hours to reach after changing three buses and crossing two rivers! It was like they’d discovered not only the children but their neighbourhood. In Kashmir I have had cases where if you ask what the most important lesson was from doing all this, very often people would say, “We need to do something.” This feeling also comes from some amount of exposure, as a big group, to something that can be done that doesn’t seem totally undoable.

This was the evolution. Is this large-scale assessment, is it small-scale assessment? We feel that the group you work with – the class, the village, the hamlet, whatever the unit at which you want to make something happen – is the scale at which you should do this. If it is a village, then obviously it has to cover every child, because by the time you do a sample, you may as well do a whole village! The fundamental belief is for a widespread discussion on learning. There have to be things that people get started on and move to a much higher level. But just to get the discussion started, particularly with the illiterate, or
parents who have not been to school much, there needs to be a starting point. I don’t believe that any education can improve without parents. At least from last year’s estimate, especially in North India, 60-70 per cent mothers of school going children have not been to school themselves or have had one or two very indifferent years in school, where they didn’t learn very much. So what are the methods with which we can carry everybody along? What are the measures that can be used, and how can all this be brought to a fruitful discussion at the level at which this is being done, for some action to be taken forward?
**Sumita Dasgupta:** Could you give us some thoughts on the villages you have worked on? They have given digestible solutions. It’s a wonderful concept. Have you gone back to them sometime later to see whether these solutions have been adopted or impacted the overall development? Has the assessment been put to work?

**Rukmini:** There are many anecdotes, but I feel confined, after giving a lecture about rigorous evidence, to give you a rigorous answer.

Before ASER started in the Jaunpur district of UP, we did three things. One was this kind of hamlet-wise discussions, but just on what the state of education should be. Then we had the kind of discussion where we didn’t bring in any new information. Because people do know what should happen in school, and that education should be for everyone – it is just that not everybody knows. So we facilitated a discussion on education in the village. The second set of interventions had this village or hamlet report card making as part of it, but with no suggestions from us. The third set actually had us saying, we will run a demo class to show you what we can do. For anyone who comes, if they want to teach kids later, we can tell them how we do it, share our methods.

These three interventions were then put through a randomised evaluation. Villages were randomly picked, and with the assessment done by an external body the results showed that only the third one had had an effect. So we talked a lot at every meeting – even our average Pratham team member, who is probably 20 years old and not a great orator, could get 200-300 people to come to the meetings, which lasted a long time. Everybody said this was the first time there had been a discussion on education. But concrete action? Not much.

Did the schools change? In the third one, it was usually community volunteers who came forward, taught children, and often did not speak very much
at these meetings. They were not bothered about the big picture changing. They were saying, “We like working with children. There are people in the village who give tuitions. We are not tutors, but we too can do our little bit.”

They were really like Baal Sakhis, ‘Friends of Children’ – an old term for us volunteers from our early years in Bombay. Not really teachers but friends, or older brothers and sisters type of people, who gave good results. On this very basic reading and very basic maths, a lot of people in the village could help the kids to move to the next step.

At that point, we were not targeting action in the schools. We weren’t looking at what we should do with the teachers. This is the experience – that in the “What do we do?” there is a lot of discussion, but rather than saying “You do this” we would say, “This is what we can do. We have done this and can tell you about it.” It may work for you, it may not. It is like my mother makes biryani very well. I will tell you what it is. Whether your mother can make it or not depends on your mother’s skill. And that seems to have worked.

**Sumita: Do you need to do hand holding? Have you ever tried it?**

**Rukmini: People would ask us to come and see what they were doing, whether they were doing it correctly or not. There is no definite right and wrong in this process. You will see that for yourself when the children learn effortlessly. When they come to you every day, you can be sure that you are definitely doing something right.**

Yes, hand holding is required – we all need it. How much, is a question of what you can afford. If somebody goes back to the village once a week or once in ten days, it’s great. But often, people in the village would demand, “You call us there because I want to also go out of my village. I want to go to a meeting. Everyone else goes to meetings – like those from Mahila Samaakhya and Log Jumbish. I too want to go attend a meeting.” With the CRCs also, hand holding helps. We now say that if this CRC has done it himself, he is the hand holder, the mentor and the monitor. So first, you articulate what the issue is. Second, what is the action that we can achieve? Third, there is a goal that can be achieved and understood by everybody. And fourth, we help each other to get it done.

Our first Pradhaanji became a total lover of learning. He said, “We had no idea that these things needed to be focused on. Now that we know, we will definitely do it. But the way you teach – we will not follow that. We will teach children in our own way.” We said, sure, teach them using whatever methods you will. But let us try and move towards a goal. You can define your goal
however you want.

Sunil Batra: I work in the education space, am involved with a school called Shikshantar in Gurgaon, and have initiated a not-for-profit called Shikshaarth. I'd like a little elaboration on something you said. Doing a status report of this kind is not easy, and you have explained it very well. How do you ensure that there is a rigour maintained by the 30,000 volunteers? What mechanisms have you had in place to ensure that is being followed? The other question is about the paanwala experience – children are gathered around and you are, in an informal way, trying to assess what they know. How much of that is reflected in your report?

Rukmini: I'll explain. A CBSE chairman once asked, why not do this Continuous Comprehensive Evaluation within a school? If you leave the word ‘evaluation’ out, it becomes a way in which you interact.

In ASER, we always do basic reading and basic maths. But every year, we also try other things. Two years ago, we were doing what we call Everyday Maths. This was piloted in a very crowded area. Everybody could see what was happening. We took a dhaba menu, and had menu calculations for the kids. There were three or four jars with biscuits and we asked which was double of the other – things like that. A tailor came out from his shop because of the crowd and asked what we were doing. Asking questions to the children, I said. “Why don’t you ask them a tailor related question?” he wanted to know. I said, feel free to ask. He said, “But I don’t know how to ask children such questions.” So I said, why do you consider these questions? Why don’t you ask them whatever you think is apt?

This attitude is not so much assessment or evaluation. It’s about talking to our kids. As a child, there’s always somebody who challenged you with puzzles and riddles, and it was always a little uncomfortable thinking that s/he would come home and ask you something and you’d have to answer it! I liked what the CBSE chairman said – if this sort of interaction was there in our environment, we would not need these 32 indicators to figure out who is what. As soon as you start really chatting with kids, you get a sense of what the child is interested in.

If the paanwala became a source to whom every child could go and say, “Ask me something today and see if I know it or not,” it would help that community to see that you can interact with children in this way.

On the question of rigour, yes, it’s a big challenge. We also raise money to do
this, so it has to be effective. What are the ways in which you can control a big exercise like this? We wanted to know how the Census and NSS do it too, by way of comparison. We do a couple of things. One is that we have two to three days of training in which one full part of a day is actually practice. So when I say this is what needs to be done with the children, we go and do it, so I can see whether whatever I am saying is being followed or not. Census does not have practice. For us, the important part is that you go out so that I can see the variations. Come back and ask me as many questions as you like. We can’t use video at the district level because it is not possible. But at the state level master trainer trainings, which go on for five-six days, we use it.

There is a system of both monitoring when the survey is on and rechecking. A lot of DIETs (District Institution of Education and Training) now participate in this – some because they have been asked to, but others because it makes students go to children’s homes. In many DIETs across India, they do classroom sessions but don’t go to children’s homes. Our survey is done on a holiday because children can be found at home. It is done in the home, or household, because there are four kinds of children in India – those who are enrolled in government schools, those who are in private schools, those who may be enrolled in other types of things, and those not currently enrolled anywhere.

For a representative sample of children, you need all of these types. Therefore the home or village is the best place to find them. To find them all, it has to be on a holiday – generally Saturday-Sunday. If it is a team of 30 people, we do 30 villages. We always have a team of two so that at least some amount of what we call inter-rater reliability is hopefully brought in.

Then, between the two weekends, there is a re-check. You go back to the villages to confirm: Did somebody come? Did they visit your home? Did you see this? We don’t do re-testing because that requires much more, both in terms of resources as well as technical work before that. So there is a recheck process and then there is a state level recheck which happens after the survey is over. When the data is entered, then there are the usual data entry rechecks as well.

Some technical work has been done on this. For example, this inter-rater reliability has been checked. The interesting thing is that if you look at basic reading, what are the other surveys that have been done on a large scale? There is one that has been used in other parts of the world, called EGRA – Early Grade Reading Assessment – which is a lot more complicated, time consuming, needs more training, and is usually done in school. We have
tested both EGRA as well as ASER with the same children, with pretty good comparable results.

So the rigour is maintained by the recheck of the processees on one end, and to begin with insisting on having practice everywhere.

**Sunil:** You talked a lot about the informal ways in which you are gathering understanding about where the child is. Is that reflected in your findings?

**Rukmini:** The villages are selected by using very standard sampling methodology. The actual ASER survey has to follow a certain pattern. So while you may have all the stories that I told you, during the survey you should follow the instructions which have been given to you and which your master trainers have made you practice. We’ve started doing something which again we’ve found to be very effective. We do a quiz at the end of the two-three days of training. We want citizens to participate, we want people who are interested to come, and these quiz results are very helpful because if somebody is really weak, either we don’t let them do the survey or the master trainers accompany them to the village to make sure that it is done well.

There are many more details on rechecks, processes, what we find and so on that we can share with you, but this is the gist of it. For the ASER exercise it is important to follow all the rigour and the training. But the tools are used for more than just by the ASER survey.

**Sindhu Mathai:** I am Sindhu from Azim Premji University. I found it interesting that you said which method you use doesn’t matter because very often the discussions tend to focus on what method you use more than whether you are achieving your objectives or not. It seems to come from practice and it matches the philosophy. But even having said that, do certain methods work better than others, from what you have seen?

**Rukmini:** It is not just the method. It is also who does it. So I may have a method that works for me. Now, having worked – as I am sure many of you have – large-scale with school teachers, I often find that a good teacher has her own method. She may hear my story, but she may want to do it or not. Or, as with the cluster coordinators, I may suggest that they try out my method and see. Good teachers usually come back with lots of suggestions that help us improve.

So I think there is a method, naturally, that I would like to use. But on a very large scale, I think no matter what method you train people with, when they
actually do it, they will do it their own way, with variations. It would be great if everybody followed the most effective method all the time, which could be defined in very fine print, or it could be a broad block.

For example, to any child that we work with we may say, the first thing we will do is read out a story to you and then there will be a discussion on it. To this, many state governments respond with, “The children can’t read. What good will it do if you read stories to them?” We say, it doesn’t matter, it has nothing to do with decoding. We tell the child, we’ll take up a story together. I will read aloud to you because I need you to know what reading is. After that, we will talk about it because we are not just reading for no reason. We are reading because we want to get further into what we have read.

So we always say that it doesn’t matter how old the child is. Accordingly, of course, the story is different. The other thing that we insist on is that when we are reading, each child must also have a book, if only to turn the pages and look at the pictures, so that they too get a feel of what we are reading. Many times, children say, “What you have read is not here in the picture.” But this conversation around something we have read together – although only I am reading, reading aloud – that is important.

We have great faith in ‘Barakhadi’, our alphabet chart. We can have a whole discussion on that. If you are a good teacher you could say, “Leave me alone. Tell me what you expect me to achieve by the end of the year or the end of the month and let me do it my way. And come and see what I am doing because maybe there is learning to be had on both sides.”

**Sindhu:** Also, when you say a significant difference from the baseline to the end line, especially in reading, do you see what the jump is that is happening?

**Rukmini:** It is not just one jump. We think that not only must we talk to the children, but using the vocabulary in the right way is important. So we won’t say, write something or draw a picture. We will say, do something on the paper. Teachers and children both have this idea that writing means writing correctly. When you speak you can say anything, but as soon as you write it down there is a right and a wrong.

So one of the ways of taking this gup-shup or conversation forward is to tell the children that we read or heard something that we held in our hands, and we discussed it. Now do something about it on this paper. The little ones draw pictures, or whatever. Often, people will think the children should be told what picture to draw. Don’t do that. Let them do whatever they want. The only job that you now have is to say, tell me what you made.
So along the way the jumps happen. In the simple assessments I may be doing, I may be looking at the reading. But along with this, the fluent readers almost always come with a level of comprehension. We’re very fond of this four line thing. Reading a word is not reading. Reading one sentence also doesn’t give you enough opportunity to construct meaning as you go. But four – or it could be five – sentences is not too long and also gives the opportunity to make connections in what is being read.

There was this paragraph, I remember, that said: “Shyam ko papa ghar aate hain. Haath dho kar khana khaate hain. Ma se baatein karte hain. Aur phir so jaate hain. (Papa comes home in the evening. He washes his hands and has his meal. He talks to Ma. And then he goes to bed.)” We take care about what kinds of words are being used – simple, well known words. But child after child was slowing down in the third line. In terms of difficulty, readability, it is no different from the first line. So, finally, I asked, what is the matter, where is the difficulty in this? And in one voice, they said, “Papa does not talk with Mummy. You have written this wrong!” There was once a line that said “My mother is fat” and there was huge objection. They insisted we change that and make it “My mother is beautiful”.

As a child reads, the assessment may be just of the so-called reading but you learn a lot about the kid. When he can’t read, he rubs nose, scratches his head, doesn’t look up. The body language changes as soon as fluency comes, along with comprehension – which is really important. It is far more important that confidence comes about being able to do something.

The significant jump in the baseline will look like now he is reading fluently. But as people who work with children, we know that it is not just that. It is confidence, it is comprehension, it is the ability to draw pictures linked to what they’ve have heard and many other things. So we decided that we should call our method something, and we call it CAMAL – Combined Activities for Maximized Learning, pronounced ‘kamaal’, the Hindi word for wonder.

So there is a need to bounce many balls, and someone will catch some of them. Even if you are in the habit of doing just those four or five things every day, at some time children will pick up some things from among these, which when they come together, will create a significant jump.

_Hridayakant Dewan (Hardy):_ I work in Vidya Bhavan. What has been the greatest challenge for Pratham, from starting in Bombay to becoming a large organisation working in many places? Also what has been the greatest sense of achievement from it?
Rukmini: Sense of achievement comes later. I think the greatest challenge is that in spite of having done so much, school after school, parent after parent, and other people think that for education you need to have uniforms, desks and a nice building. We are great believers in inputs. If somebody said you need good teachers, I wouldn’t have a problem. I’m not saying these should not be there. Of course there ought to be desks. But we can sit on the floor too. It is not as if one’s comprehension is affected by that. It still frustrates me that in spite of all this drama, all people want is a building. Organisationally, that is a challenge.

Hardy: For drama you need more actors. What are the challenges in getting so many actors?

Rukmini Banerji: There are a lot of people who get involved because they want to do something. But it is not easy to train them. They say, we can’t understand all this that you are saying but we want to work with children. That’s a challenge. Increasingly, as we are going into CAMAL, what I want is, for example, gup-shup, conversation. It is not easy. How do you get people to really talk about a story? They say, “Madam, we have done our talking. I asked some questions, they answered, and that’s how we talked.” That’s a big challenge.

Now, about reading stories. We run a lot of libraries, and once I asked all our community volunteer librarians, what is the picture you conjure as soon as you hear the word ‘library’? And everybody said, “Closed cupboards.” Then I said, can you tell me a book that you have read recently or at some time in your life that you enjoyed very much? “We have not read books at all,” was the response. How are we expected to run such a big reading programme when they themselves had not had the pleasure of reading? What we are doing right now across Pratham is to tell every full-time Pratham worker that is necessary to read. If we run Read India and don’t do Read Me to begin with, then how do we expect the programme to flourish? These are the challenges.

I don’t see these as Pratham challenges. I think it is a challenge for anybody who works in basic education that we do not read ourselves. We have learnt our maths this way. I myself cannot do 4th Standard maths confidently because I feel there must be a right or wrong answer.

The are two other challenges. If this is a government school, and you ask but who is the government, you are told it is the Block Development Officer, the District Magistrate, the Chief Minister. On whose money does the school run? “On the government’s money.” How does the government come by this
money? “Madam, the people who rule obviously have a lot of money. That is why they are the rulers.” This is a big fundamental issue – how do we associate ourselves with the schools? The feeling is, “The government should send someone to see how the teachers are not working.” But who are these government teachers teaching? “They are teaching our children, but never mind, we will make that up through tuitions.” There is a delinking – that there is a government and there is a school and there is a teacher, and we are separate, so how is all of this our responsibility, and why should we go and look?

The midday meal scheme is a good example. “Oh, it’s terrible! Have you tried it yourself? Are we beggars that we need to go to school to eat?” This kind of attitude creates the distance. I don’t know if this happens in private schools – I have no experience about that. But a big issue is, how can we associate ourselves with our schools?

In Bombay, with the citizen background and culture, probably with better functioning schools, and with many adults today having come out of municipal schools, the link is closer. Today, 50 per cent of the children in UP go to private schools. So what would be their interest in a government school? Every political figure owns a school, so why would he care about government schools? There is this big mess that is not about to be solved by the SMC (School Management Committee).

The second is this refrain of “I am illiterate”. If I ask, how are your children faring, I am told, “How can I tell you? I am illiterate.” I say, what does it look like to you? “Madam, you are trying to trick me. I am illiterate.” So I say, you haven’t studied medicine like the doctors, so what do you do when your child falls sick? They say, “Oh, that’s very easy. First we touch the forehead and check, if it’s hot we give them some medicines at home. If the fever doesn’t go in two days, we go to the doctor. If the government doctor doesn’t cure it, we go to a private doctor. If that also doesn’t work, we fight with them.” I tell them, you haven’t studied medicine, still you handle so many situations – you are not illiterate then! A prompt answer comes, “Children fall sick only sometimes, but these things you’re talking about have to be done daily.”

Recently, in Ajmer District in Rajasthan and Poorniya district in Bihar, leave aside all the language complications, we did not teach the children. It is very difficult for Pratham to do it – they say, “These big people are very difficult. They want to sit here and work with children.” We worked for two years only with mothers of children who were from age four to eight. Often a mother of a four-year-old is a young girl of not more than 16 or 17. These mothers had never opened a book, not even touched the child’s textbook. We said, have
you checked them out? There are plenty of things in them that you too can do. “I am illiterate. How can I check it out?” But thanks to mobile phones, everybody has number recognition and number sense. When a child is ill, they know how to check for fever and go to a doctor, even if they haven’t learnt medicine. So I think these are all confidence issues, and that’s a challenge. “How can I go and discuss things with a teacher?” But didn’t you say you could fight with a doctor? I’m not saying you must fight with the teacher, but how about conversing?

We have great difficulties in talking about critical matters. There can be no sense of involvement until you believe this school is yours, that you have a stake in it. Another big problem is the attitude that a child is stupid, and that it is part of tradition that some clever children will move forward and others will not. How can we say that? The child is only so big! How can you say s/he is incapable of achieving anything?

These are not organisational issues but are big hurdles in our way to universalising learning. This is the government’s school, I am illiterate, this child is stupid – these are the three biggest challenges of India, which neither Right to Education, nor SMC, nor 6 per cent GDP is going to solve. We have to do it ourselves. Everywhere we need people who will say that these are all false. We need to tackle this.
The panel discussion tried to examine the role of large-scale assessments within school education. Panelists drew from their deep experiences of either designing and implementing large-scale assessment studies or from closely observing and analysing the impact of such studies. The panel discussion went into both what the role of large-scale assessments could be and also the problems and negative impacts of having large-scale assessments on the educational system.
Assessment & Education

Vyjayanthi Sankar

It is sometimes assumed that the challenge of providing quality education is an easy one to meet – just do the basics right and quality will be achieved. But experience worldwide suggests that this is not true. For example, the US spending on education jumped roughly from 300 to 600 billion dollars between 1995 and 2007. But performance rose only marginally, that too in Maths, not in Science. We too have this history – there are reports from Himachal Pradesh that say all inputs are in place but outcomes are not satisfactory.

Quality in education and ensuring that children everywhere are learning well or learning with understanding is not a simple issue. Often we find that in the system, when decisions are being taken at the policy level, they could be based on ideology, or ignorance, or inertia. Basically, they are not data-based – the basis is something else. For example, when new textbooks are being created, those involved never even look into research – what gaps the children are facing and where the emphasis should be.

This goes on. Programmes are implemented without proof of concept. When we work in Hyderabad and I ask my partners – Pratham or Azim Premji Foundation or Naandi – to get a control group, I can never get one. If I am doing a testing for Naandi, I will be actually checking Pratham schools. Anything that we want to do has to be implemented en masse. And when that happens, you really do not know whether a particular intervention is working or not because there is no way of establishing that.

There is also non-availability of well collected data. So if you go to a policy maker and ask, “Why are you doing this? Do you really know whether this will work?” the answer you often get is, “Where is the data? Show me the evidence.” The evidence also has to be collected on a scale they are able to trust – we are talking of large-scale policy reforms. But the data could be incomplete or collected through non-standard methods, or it may have lost its granularity and aggregated to such a level that when you try to break it up and read meaning into it, it is just not possible.

The other problem is limited accessibility. Data may be collected, there may be many bodies that are collecting it, but as a policy maker if you want to know what is happening, you do not have easy access to all of that.

The system too does not often have the required skills. Our experience has been that after a large-scale assessment when we generate the reports – whatever the level may be, we generate reports for the teacher, for the student, for
the ward – no one report works. You have to necessarily break the data into multiple forms. But you find that often people do not go beyond averages. For example, in the Andhra Pradesh Randomized Evaluation Study, when we presented the data, initially each student was given a percentile. Every student had a report because the same children were tracked over six years, and then we did workshops. After three months, the government came back and told us to remove percentiles and just show percentages. So you find that there is a lack of awareness in the system on how to use or understand data.

There is also what I would call the absence of the culture of research. Nobody looks at it in terms of very robust research with which you can go back to a policy maker and say, “Here is the evidence. This is what will work” – that sort of thing.

So how can large-scale assessments be helpful? Take, for example, the benchmarking of learning levels.

### Benchmarking Learning Levels...

The levels of learning is much lower than the international average on questions used from TIMSS and PIRLS.

**Class 4 Language**

**Passage Excerpt:**

When Lakhan discovered that he had mice in his house, he didn’t bother him much at first. But the mice multiplied. They began to bother him. They kept on multiplying and finally there came a time when he couldn’t stand it no longer.

**Question:**

Why did Lakhan want to get rid of the mice?

A. He had always hated mice.
B. There were too many of them.
C. They laughed too loudly.
D. They ate all his cheese.

**Sample Question 2:**

Internationally, 79.0% of students answered this correctly, while 41.8% of students from Indian school got the correct answer.

We did a Student Learning Study across 20 states of India, covering government schools and international schools, with questions taken from the PIRLS (Progress in International Reading Literacy Study). This was an international study with about 54-60 countries participating, and we found that our level of learning was much lower than the international average. We saw similar results in the QES (Quality Education Study, jointly done by Educational
Initiatives and Wipro).

Large-scale assessment helps us to understand the extent of rote. When asked, “What is 23 x 3?” 84.4 per cent of the students answered correctly. When the same batch of students, in the same paper, just a few questions down, was asked, “What is 3 times 23?” only 43.8 per cent could give the correct answer. Both are not what I would call conceptual questions. They are procedural questions. Even there you see that there is a limitation on what a child can and cannot do. These things can be brought out by large-scale assessments – that more children are able to deal with a procedural question than an application question. Studies like these basically try to understand and benchmark learning levels.

I would also say that large-scale assessment helps the policy maker understand patterns in performance.

Patterns In Performance

Misconceptions continues in higher classes

The length of the line in the figure above is 4 cm. How long is the pencil shown in the picture? (Use the ruler shown in the picture.)

Homogeneity in the performance of the different mediums

<table>
<thead>
<tr>
<th>Medium</th>
<th>Question</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Which figure is 1/3 shaded? A.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.</td>
<td>C.</td>
</tr>
<tr>
<td>Hindi</td>
<td>सीता ने 3/4 तार की लम्बाई को मिति है? A</td>
<td>B</td>
</tr>
<tr>
<td>Marathi</td>
<td>हे त्यः तारांची 3/4 मात्र मापण्यासाठी काळे? A</td>
<td>B</td>
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<tr>
<td>Urdu</td>
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So, if you are given a question where you have to try to find the length of a pencil, the important thing is to see the red mark on the performance table which shows that the children are answering that the length of the pencil is six centimetres, though it is actually five. The same question was asked across Classes 4, 6 and 8. Although a number of children were correcting themselves, those holding onto the misconception more or less remained the same. Similarly, when you test the same question over different mediums, the
patterns largely remain the same.

So how can large-scale assessments actually help curriculum and pedagogy? In the Student Learning Study, there were four questions in a Class 4 test paper, all on the concept of fraction. After the test, we actually grouped the students into different percentile groupings – children reaching the 25th, 50th, 75th and 90th percentiles. You can do a process called scale anchoring where you check how many are getting answers right. You find that children in the 25th percentile get the first question right, but not the other three. ‘If a watermelon weighs 10 kg, how much will half the watermelon weigh?’ Those in the 25th percentile were able to do it. But if the same fraction concept is altered slightly to ‘In which figure are one-half of the dots black?’ (among four squares with 4, 6, 3 and 5 dots, of which 1, 3, 2 and 2 respectively are black) the 50th percentile children could do it, but not the 25th percentile.

Equality of parts is such a basic fundamental idea of fractions. If you were to ask, ‘Which figure is divided into four equal parts?’ (from among a triangle, circle, square and hexagon segmented by straight lines) you would find that only the 75th percentile children can do it. And then you ask ‘Which figure is half shaded?’ Only the 90th percentile can do that.

So when you expect the teacher to improve the concept of fractions or the understanding of fractions in the class, she will be unable to do so if she is
not able to understand what exactly is to be done and who is at what level. Similarly, if I were to produce a curriculum or a textbook, I could focus on the actual issues depending upon what percentage of my children in that area or in the state are in which group.

So this is how large-scale assessment helps curriculum formation and pedagogy, and how in the classroom reports help the teacher. When the reports are given child by child, she can see that when the correct answer is C, most children are answering A. Then she goes back to the question paper and checks.

Prioritising at the administrative level is most important for India. When we do state workshops we emphasise that every DEO (District Educational Officer) should know at what level the children are, what percentage of children are in what, and actually seeing what they are able to do and what they are not, in terms of knowledge and ability. The more granular it is, the easier it is to bring about reform.

We use a video on student thinking for training. For example, in Bhutan, if the officer at Thimpu wants to know how to schedule his training or what he needs to focus on in Maths, he checks for it and sees that in so-and-so skills these many teachers are weak, that most teachers are weak in Algebra. The system tells you immediately which teachers are weak and need to attend,
and then it can actually show what they are weak in and what mistakes the
children are making. These are surgical repositories of data where the policy
maker, at the click of a button, is able to get what he wants.

Kanupriya Jhunjhunwala

I am discussing a topic that I myself don’t know much about! But it has given
me a chance to read up and sort of join some dots, but with the disclaimer
that it is still a question in my mind.

Everybody has been saying that there seems to be this relationship between
quality and assessment. And very often, the rationale for doing assessment is
that we are striving for better quality, and we need to know where we are to
be able to get where we want to. So if quality and assessment are linked, then
what are the different kinds of assessments that are there right now and how
does it affect everyone concerned?

There are high stakes achievement tests where aggregated results are used
for summative purposes, such as our Board Exams that decide whether our
students are promoted or not, or go to the next level. Or, as is very popular
now, for judging the effectiveness of schools, and assessing teachers also to
go back to assess how schools are doing, assessing children to go back to how
schools are doing. All of that is going on.

There are, on the other hand, also low stakes testing. These are usually aggre-
gate scores for a geographical area or maybe even international trends. But
they are not usually individual marks for promotion or for attaching any value
to anything or anyone. It is more to study how things are going. So I would
say, ASER (Annual Status of Education Report), at least in Pratham’s mind,
would be a low stakes kind of a test.

But who is at stake? Whose stakes are low, whose stakes are high? I am going
to take two case studies. One is the No Child Left Behind (NCLB) programme
in America and the other is this Karnataka State Assessment Organisation
test that we do for quality assessment. I am going to be very wary of making
comparisons and taking the comparative approach lightly. It has its own
problems, when you take what has happened in another country and start to
use that to figure out what is going on in our country.

So with that caveat, in the United States there are significant consequences
for students as well as teachers and administrators because schools who fail
to meet the adequate yearly progress that is mandated are labelled as failing.
And failing schools lose funding, children leave, children are pulled out.
There is that whole series of consequences. But in Canada or in India, usually
we don’t hold schools or teachers responsible for the tests we conduct. So the results tend to have high stakes or consequences only for students – not teachers or administrators, although educators may feel under pressure to raise test scores.

But yesterday, I saw on the front page of The Telegraph that on the 18th of December, there were four separate schools where students and their parents actually held teachers hostage in various ways for having failed them in the selection exams for the upcoming boards next year. In one school, there was a 22-hour siege. In our country too, there are these various ways in which schools and teachers are now being held accountable. So I think it is constantly changing – who is at stake and why, and why the stakes are high when we talk about assessment.

When the results are published, they are rarely, if ever, officially sanctioned for poor student performance. Teachers and schools usually get away and it is basically the students who suffer as a result of failing or doing badly in the exam. So this whole business of testing – Vyjayanthi spoke very well about why it is important and why we need it, but does it work? Since America has been doing it for so long – this very high stakes test – what has the American experience been?

Many of you might already know about NCLB. Eventually what happens is that if a school is labelled as failing for six years in a row, then it is going to either close down or be run by a private company. Privatisation is the most common option, if the school continues to exist.

We have been looking at this chain of assessment – this concern for quality that leads to testing which may or may not be intended to be high stakes but ends up being so. And that leads to privatisation and other market driven situations because the government, in the end, is giving up. It says we can’t do it any more. We are not in a position to take the onus for this quality any more. So they admit their failure and eventually privatisation happens.

Is it good or bad? If this is a chain that exists, if these are issues that affect each other, then is this for the good, or is it bad? Again the American experience – there has been a lot of research that the government has done to show that, yes, this has been good and achievement has increased and gender gap or the gap between races has decreased. So it is helping us. But then the critics say that much of the improvement is actually attributed to cherry-picking. There are cases where the teacher will encourage the low achieving students to stay home on the day of the test. Or they will send them away on school trips when the test is scheduled. Or they will actually tell them the answers.
In the keynote address delivered by Prof. Prabhat Patnaik at Jammu University, at the annual conference of the Comparative Education Society of India, he talked about the commoditisation of education and said that things do not become commodities merely because they are sold in the market. They do so only when saleability in the market becomes the sole defining characteristic. The so-called striving for excellence that our leading policy makers often talk about amounts to nothing other than making this commodity – which is education, and which India produces – internationally competitive.

We have a need, then, to understand the various forms that privatisation of education is taking – this opening up of the pedagogy market, as Krishna Kumar has put it, this commoditisation of education. Privatisation doesn't just equal opening up of private schools any more. It is all of these other ways and forms in which the market is entering the education space. Can they lead to the dismantling of the original aims of large-scale assessments, which are quality enhancement or better results with all children learning well?

A lot of people are familiar with The Karnataka case. Here also what was found was that they needed to show results. This started dominating the processes, and the actions of both teachers and lower level officials. There was quite a bit of cheating and, as teachers themselves said, the original reasons for doing the tests and remedial education goals were sidelined in the end. All the teachers were eventually only teaching for the test. Someone in the teachers union in Karnataka said, “The senior officers are bent on giving more importance to the 60 minutes of the remediation as compared to the six hours of regular teaching.”

Are we then seeing a trend towards commoditisation of education where assessment results act as a measure of quality of product, somehow similar to the way that branding creates perception of product quality? It is an open-ended question and I don’t have the answer, but I thought this was a train of thought worth sharing.

Hriday Kant Dewan (Hardy)

Let’s try and think about a process of assessment which is international. Let’s start with that because that’s what we are now heading towards. India as a nation, Bangladesh as a nation, and Sri Lanka as a nation are participating in that process. So what does it mean in terms of implications of that data and the inevitable comparisons? Who is it for? And what kind of inputs for quality and status check can it give us?

Are we saying that education does not have to have anything to do with the
geography, culture, history, or the background and politics of that particular country? That education is a process which is an outside implant, which can be put in, and the changes measured? Then you can decide if the implant that you have placed is proper or not, and how it has to be modified? I am not clear, therefore, what these international comparisons are for and where they will lead us to.

The second question is about the fact that we want children to learn. Obviously, the most important players in this are therefore the parents, the children and the teachers. Where are they in the process of this assessment? To me, that is the more central question. If I am preparing a test that has to worry whether it is internationally acceptable, then I am going to wipe out all cultural, social aspects and things that are important to the child from his or her experience. I am not very clear whether that is the best way to test. Even if I say that my testing is appreciated and may lead to certain improvements, I am not clear what I am doing.

The third question is more a comment on the way we make questions in assessment. It is of course inevitable when doing so for such large bodies that they have to have certain sweeping assumptions about how children are and how they learn – no talking about their cultural, social or political background, or philosophical background. We are just looking at the fact of how they learn.

We think we know what fractional numbers are. We cannot even think in our minds the fact that there may be a distinction for the child between a fraction and a fractional number. The concept of fraction, or bhaag – in Hindi, you have two words, bhaag and bhinn, and these two words may mean something totally different for a child. So when he sees a picture in which there are three parts, and he says they are one-third, he is right because it has three parts. Nowhere do we talk about equal parts. It is only when we do mathematics that we talk about fractional numbers, about equal parts. And the notion of fraction as a representation of p/q occurs before you make a picture of something that has three equal parts.

So the pedagogical tool to help the child acquire the concept of fractional number has become the goal of teaching fractions.

Rukmini Banerjee

The board exam is clearly not the goal. We have to say – I think this is the toughest thing – “What do we want? And who is ‘we’?” ‘We’ here means the SCERT (State Council of Educational Research and Training). This year, for
example, in ASER, we are doing a very simple English testing. Not because I think English is right or wrong or anything else. They are studying English already. There are only two states where English comes later – Gujarat and, I think, Karnataka. Everybody else is doing English in the 1st Standard.

The papers of the National Curriculum Framework (NCF), which I think are well written, are way off the mark. How will these things work? I completely agree that we should forget all this international comparison. Our country is so vast, we have enough problems of our own.

I was in a meeting in one state government where CCE (Continuous and Comprehensive Evaluation) was discussed. CCE, to me, is a great place where a lot of things could be possibly explored. But as we are linking CCE to textbooks, we are losing that whole opportunity of trying to understand the child or where the child is, trying to have a discussion at the state level or district level, wherever CCE applies. Nobody has said that the state should implement CCE, but every state is doing it.

There are certain opportunities in the Right to Education, which is a law and therefore we should take it seriously. One is that parents should be periodically updated on the progress. That must mean that the parents must be told in a way that they can comprehend, not just by sending a report card.

The second is that the fundamental principle of this continuous comprehensive evaluation is to understand where the child is at. There is a goal where I must take him, and this is a way to chart the path. We are rapidly losing that opportunity in many places.

But I also feel disappointed that teachers’ unions are not saying, “Leave it to us. We know the children.” People who can take these bold steps must do so, and take it for some group which is more than just one class or one school. Or maybe not, but there have to be enough examples. Ten years from now, DISE (District Information System for Education) could have their own way of how they have figured children out for a report card. But we still need to set a goal and get there. We need to have a discussion, fight about what it is that we want. If we want children to do a certain thing, we have to know how to get them there.

Assessment, to me, is the first part of the questioning of how to do this. Whether we have reached some agreement or not – PISA (Programme for International Student Assessment), for example – I have to say that when these comparisons are drawn, unless you are looking for a comparison, it is meaningless. The really worrying thing about PISA, apart from the other questions already raised, is the two asterisks on top of India. It doesn’t matter
if we came last or first. We lost in cricket too, but nobody says we are not a cricketing nation. We will do better next time. The asterisks say that we did not follow the methods. We didn’t do properly even whatever was taught to us.

Now, I don’t know the politics of why we went for PISA or whatever it is. At Pratham, it made us look at all those documents, which were there earlier but we had never looked at before, documents about the kind of questions asked and how they are asked [in PISA]. Can we create for children, the children that we are teaching, texts that are not for testing purposes, but for chat sessions? What sort of texts can we create around which we can have intense conversations, discussions? We find it very difficult to create them. We have been experimenting on this not with the objective of testing, but classroom interaction. How do you interpret visual images? So I think that I am not in on this whole international business. The world is a very big place. But there are things to be learnt.

Assessment gets a bad name for many reasons. If you approach it as Step One to figuring some of these things out, it is a productive process. If it is the end point then you don’t know what to do with it. Take the NCERT (National Council of Educational Research and Training) results, for example. I asked several state governments to explain to me what they made of it all. People don’t understand it, so why are we doing it? Our children have never done multiple choice questions, but we give it to them.

ASER may be very reductionist, minimalist and going into decoding, but a lot of people can understand where it is beginning. Once we have built that base, then we can go forward, question further.

I think we need indigenous solutions which may be very local or a little more than local – that varies. But we have to carry everybody along, and what the methods are of carrying everybody along have to be worked out. So the hard work lies ahead. Erecting a school building is difficult, but not so difficult. Teachers will be trained. In my state, some two to three lakh teachers have to be trained.

Everybody is looking for ICT (Information and Communication Technology) solutions. There may be this thing called ICT, which is probably used well in states like Karnataka. But only after you understand the children. The first thing in training should be to ask, “Do teachers in India know the names of every child in their classrooms?” Having done some surveys on this, I can tell you that they don’t – however much you may train them. So where do we want to go, and what do we want children to know? If we want them to fish
well, do we know how to teach them how to fish well, or will they learn on their own?

These are hard questions. I think the Right to Education has to have some of these discussions. Never mind whether ASER is minimalistic or reductionist. What do we want? After eight years, what are the tasks a child will be able to handle comfortably? This needs to be reviewed.

Vyjayanthi

Anything you do in life, whether it is learning swimming or making a cup of tea, you need to know how you are doing it so that you can improve on it. So, too, the purpose of assessment. Like Rukmini said, it is not the end point. Traditionally, we have been using assessments only to pass or fail a child, or to give him promotion, get him admission and so on. But when you are looking at low stakes or diagnostic assessments and so on, it is actually the starting point. It asks, “Where do we stand? What is it that I know? What is it that I do not know and hence where do I go from here?”

Even as a teacher, which I have been at some points in my life, if the principal called me and said that I had to ensure that children learn better, what would I do? Go back to the class, work a little harder, but not smarter, at doing the same thing that I have been doing. I need to know where the children are doing well, where they are not, where the gaps are and so on.

How would I get to know this? I might have a feel, but unless I have data I may be off the mark. We have often found that before the assessment when you ask, “What do you think your class is strong at?” the teacher will say it is strong in fractions. But once the data comes, the teacher herself is surprised – “I thought because I am very strong in fractions, my children will therefore be strong in it.” But it need not necessarily be so.

That is why data which is granular, collected at a competency level, at a conceptual level, checking whether children are learning or not, would be the fundamental step for the teacher to enable herself to do something smarter and hence ensure that more children learn better. So assessment is not just averages and percentages and data.

I have had this discussions with policy makers, where the education secretary says, “I have a budget, I have a mandate. My minister says the ASER report is coming so ensure children are learning well, those in Class 5 are not studying Class 2 texts.” So you ensure that Class 5 children are not doing Class 2 texts. That’s it. But beyond that, where exactly is the problem? We have to go deeper. Assessment is not just averages and percentages and data.
**Anjali:** I feel large-scale assessment would not work for diagnosis.

**Vyjayanthi:** I am not talking about replacing a classroom test. But what the teacher does is not sufficient input for a policy maker, for a textbook maker, for a person who is doing teacher training programmes. You need information also at a systemic level. There are two different purposes and both co-exist, serve a purpose.

**Anjali:** So what you are saying is that large-scale assessments are basically to test the system?

**Vyjayanthi:** Yes.

**Anjali:** To report on it?

**Vyjayanthi:** Yes. Largely so.

**Rukmini Banerjee:** Let me tell you what I think. In our ASER there are four lines, one of which we call the 1st Standard level from having done a lot of analyses of 1st Standard textbooks etc.

Allahabad, for example, is a big district. There are something like 220 or so cluster co-ordinators. In a meeting with them once, I said, “Can you write four sentences that you feel your children will enjoy, and which you feel will not be difficult for children in the 1st and 2nd Standards?” So 220 people wrote what they thought. These are people who are supposed to spend time in schools, and they do go to schools.

Then we said, “Alright, you have done it. You have had at least 20-30 years of experience in schools. Go out to the nearby schools and see if the children like
it, can read it, want to talk about it.” They all came back and said, “No, this needs to be changed.”

The big issue, I think, is – again, this is at a level much below assessment – what are we giving our children? Our textbooks are too tough. Maybe every district cannot have its textbooks – we don’t have that capacity. But what are we giving our children from these textbooks?

Devika: We keep talking about a diagnostic test. And someone was raising a question there that even though you are saying it is a large-scale assessment, it is more for testing the system. Is there any work, any test that you have, which is actually a diagnostic test in terms of telling us what we need to do now?

Even when there is a medical diagnosis that needs to be done, what the doctor actually has in front of him is a blood report and a urine report and many other reports which do not give any diagnosis of the ailment. A good doctor will interpret what the results are showing and what needs to be done.

Education is equally complicated. You might get a certain result from a certain test that you might have administered, and you still really won’t know what it is that ails the learning, what we need to work on from here on. I have been working with a lot of teachers and a lot of schools for using Asset, and we have also seen that when they get the results they don’t know what to do with them.

I think that we are not really diagnosing. We are not really helping schools to remediate. That is a very complex issue. So could you tell me, are there tests that have been framed which actually tell the teacher that this is the diagnosis and you can work forward in this manner? That needs a lot of intense involvement.

Sunil Batra: Assessments of any kind are subjective, and they will always be. With young children, specifically, the question of capturing perceptions will always be very, very tricky. We have to accept it, and that’s what makes certain kinds of pedagogy and curriculum development very complex.

Having said that, we also know that the kinds of influences that are coming on society are bound to be here. It has taken ten years for PISA and CBSE (Central Board for Secondary Education) to land up as partners. These are the politics of education that we need to be dealing with.

Ultimately, I think it also has to do with the choices we want to make – do we want to create a polarity here, or do we want to make some choices? And do we want to then initiate certain regulatory methods in society? At what age, what kind of assessments, whom is it for?
Rather than saying that we are fragmented and we will continue to be fragmented, can we come together in some ways to say that certain choices that we are making are detrimental to school practice? It is high time that we take a stance. Why are we hesitant? One reason is that we don’t know how to collaborate. And even if we do, we don’t spend that kind of time together. There are some very important perspectives that are coming out. But it is important that we also take some of these things head on and say these are the kind of choices we want to make for the next ten years. There will be major changes taking place in society in the next ten years in terms of technology, lifestyle changes, etc. Where is all this assessment going to go? New packages will be imposed on us. Until we question whether we want our children to be victims of that, there will be more ills in society than we know presently as detrimental to us.

Vyjayanthi: Just like the issue of learning is a complex one, I don’t think doing any one thing is going to solve it. Just doing assessment is like saying I will go and do a blood test again and again, and my cholesterol will go away. It will not.

What we need is a multi-pronged approach. There are tests which I can share with you. For example, in Bhutan or in Andhra Pradesh, every child and every ward gets a report which actually says this is what you need to do, these are your next action points and so on. Then the system has to be enabled.

In Bhutan, in a census study, every year children get tested, teachers get tested and so on, and very detailed, granular strengths and weaknesses are generated. But then, to actually implement and ensure that reform happens and children start learning, they have come up with a school support division. So there are people who go and help – sit with the teachers, make action plans about what needs to be done.

I don’t think that assessment by itself serves any purpose. Assessment is a starting point. It tells you where you stand, it tells you the health, it tells you in granular detail what you do well and what you do not, and hence that could help the system.

Rukmini Banerjee: Parents and teachers at least have to have a sense of what needs to be done in this year or in the coming two years. That has to be quite simply understood. What really worries me is that there is a textbook in my hand and there is a child, and at some point people decide that this child doesn’t know – and that’s not okay.

I don’t care what Finland may be doing. Whether it is at the top or bottom
of PISA does not matter. But it does matter that in my class, or in a group of children who are in front of me, 80 per cent should not feel that they will not be able to cope. And parents, just because they have not been educated and did not have the chance, should not feel helpless.

Methods and mechanisms have to be built. The collaboration you are talking about has to happen at a between-a-teacher-and-a-parent level where the child can achieve. When we set these goals, they should be achievable goals, even if they are internationally god-knows-where. For us, as teachers in a school, it is very difficult. When we have teachers in front of us and we say, “Tell us which of your children can do what by the end of this year,” there is a huge variety of opinion.

We have to guarantee education, which means guaranteeing learning. We have to define it. There is no way around it. There will be bloodbaths and they need to be had.

**Kanupriya:** The question that has been bothering me, that I tried to discuss earlier, is, does a certain type of assessment, used in a certain way, lead to certain types of outcomes within the education system? And if it does, then what are the regulatory mechanisms, or the issues around it which we need to come together and define what type of assessment we want and how that should be used or not be used?

**Hardy:** I want to repeat what Sunil and Rukmini have said – that we need to take it head-on, we need to put parent, teacher and child at the centre of learning. They need to understand what is happening, they need to feel that they can influence what is going on.

We need to allow our SCERTs and DIETs (District Institute of Education and Training) – and the people in the SCERTs and DIETs – to feel capable as well. For the last ten years or 20 years, I have been on the side of making them look like fools. I want to switch sides, because I think that’s what needs to happen. Because our being capable, knowing what education is and trying to bring in a different kind of education – which all of us feel very strongly about – is not the answer. It is not helping in the quality of assessment we are making. So while the textbooks may be bad, the only way to make a difference is to try and work with them. And make different kinds of textbooks – not keep saying that the textbooks are bad.

I think it is a critical point for all of us to think about. Can we get together
and think about this situation as a challenge on which we must collaborate and face together?
An Assessment Culture: Implications for Individuals and Society

Padma Sarangapani

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I have recently been involved with a study that will give the discussion on assessment a broader social context. The study was initiated about a year and a half ago out of concern about assessing the quality of schools with a very learning outcome oriented approach to measurement of inputs or pupil outcomes. There were very few studies that we knew of which tried to make sense of the school as an institutional space responsible for producing quality education. So we tried to understand how we wanted to operationalise this idea, and initiated an exploratory study.

The debate on quality in India has been deeply linked to the question of whether private schools with low fees can provide quality education to the poor. That is, do we have cost effective solutions to providing quality? What is meant by quality education has never really been articulated. There is the assumption that infrastructure or outcome results can help account for quality. We felt that until we understood what was going on in school, tried to map the space of school, and visualised it from the point of view of quality – as articulated especially by JP Nayak and Christopher Winch – we would not be able to comment on quality from an educationally defensible standpoint.

We had an exploratory tool which we took to three regions in India and attempted to map every single school within a certain urban geographical delimitation. It was a complex study in which we reflected on many dimensions of school education. I will focus on one which deals with classroom cultures and pedagogic regimes. This data comes from one educational mandal in Hyderabad with 85 schools – all types of schools, including recognised and unrecognised schools, government schools, primary and high schools, composite schools, madrassas and even non-formal education centres. Many of the private unrecognised schools fell in the shadow areas between mandals, where jurisdiction questions slip conveniently from one to the other.

It was difficult for us to determine the clientele bracket for each school and to put a finger on the fee structure of a private institution – there are many types of fees, hidden and explicit. Instead, we got the schools to tell us about the occupational profiles of the parents who send children to that school. Some of the analysis was our attempt to correlate clientele groups and types of schools.

In this slide, Group 1 represents occupational types such as bank officers, high level government employees, or software engineers. Group 2 has business people. Group 3 represents those in clerical positions in the private sector. Group 4 comprises people with irregular employment and unregulated
earnings, like shop assistants or vegetable vendors. Group 5 has scavengers, ragpickers, etc.

In the mandal, we found that schools were remarkably homogenous in terms of clientele. Only very few schools cut across a range of occupational types. One of these was a special school, which though heterogeneous in the occupational profiles of parents was homogenous in terms of the clientele it catered to – special children. Another catered to a religious minority group, Muslims. This school again had occupational heterogeneity but the same religious and linguistic background. Effectively, all the schools from this area were homogenous in one way or the other. This was a very important finding.

Another interesting finding was that while we might think that Group 5 children mainly go to government schools, they actually go to schools run by charitable institutions. Even government schools don’t cater to them. The poorest of the poor are being attended to by schools run by religious minority groups, who are willing to enable children from extremely difficult circumstances to participate in the schooling experience.

This does not have any direct connection with assessment. But the question arises that, given the stratification of population and our educational system, and that there are no opportunities for children of diverse backgrounds to be mingling in schools, can we see the replication of these deep inequalities
present in Indian society? Not inequalities alone – there is also a tendency to ghettoise its various wings. I can’t yet make a direct connection, if this has any direct connection with assessment, but it is a question we can keep in mind.

I want to move on to pedagogic regimes. I prefer the notion of pedagogy to the idea of teaching and learning, because pedagogy draws our attention to the fact that there is much more to what teachers do than appears in the classroom. Teaching needs to be understood along with the theories, beliefs, policies and controversies that inform and shape it. To understand what teachers do in the classroom, we have to locate that practice within a much larger institutional context, the teacher’s own belief frameworks, and societal issues within which their practice of teaching actually unfolds. Acts of teaching carry in them multiple levels of focus simultaneously. Even when teachers do what they do in the classroom, they are working towards many types of outcomes and gains – immediate and distant. It is difficult to pin teachers’ actions down to outcomes because they work at many levels, and their work is influenced and shaped by the context in which they work, both directly and indirectly.

Our study draws attention to the fact that if we want to understand what teachers do in order to describe what they do, we have to take a much more complex approach to the description, rather than go into the classroom, observe and comment on the quality of teaching going on in there. With extensive data captured from 85 classrooms, out of which I have myself gone to 15, I found that in order to be able to describe the quality of what teachers were doing and what children were learning, we needed to factor in at least five different dimensions.

In different institutional settings, and in different contexts, teachers and schools have expectations from children. We need to be aware of this, and be able to engage with conversations or observe interactions where we get a feel of these expectations. We also have standards and expectations of what homes are going to do for schools. It is not enough just to look at the teacher-community relationship – there is also a set of expectations that bind the school and the home, and we found various types of relationships. There were certain institutions that expected there would be no support from home, with an empathetic acceptance of this fact. In some others there was no expectation of support from home, but dissatisfaction about it. In some cases, both school and home worked together to constantly complain and exchange reports about the child. There was a tense cooperation, with a lot of blaming going on. There were schools where parents would be constantly counselled on how they should reformulate the way they practised at home so they could
support what the school intended to give the children. Sometimes, school and home were in perfect sync in terms of their expectations from children, where teachers would be expected to call at four in the morning to make sure children were studying. In certain schools there was an assumption that the cultural capital which the school needed to build upon would be available at home, and that if there were demands for funding, the home would be in a position to provide it.

We found about seven or eight types of relationships – a complex of mutual expectations, mutual understanding – that can exist between the home and the school. Then there are different types of teaching that go on in the classroom. In some, the teaching is massified – meaning, teachers don’t connect with individual children, probably don’t know their names, and the class proceeds in a very massified way. In certain other classrooms the teaching relationship is individuated, but not individualised. So you can have a lot of intense assessment going on and the teacher knows the grade of every child. But every child does not emerge in that classroom as a distinctive individual, although you get individuated in the process of the pedagogic practice.

The method of learning, we felt, is a feature very central to understanding Indian classrooms because pedagogy is not only defined by the teaching, but the teacher also has the onus to make sure that the child learns. So you will find that a lot of time in the classroom goes in the exercise of revision, something we never factor in. We look at teaching, but this is not actually to teach something new, it is to make sure the child has learnt. This is an obsessive concern of classrooms – in a 40 minute period, 30 minutes can be dedicated to this. And there are various ways of making the child learn, which I think is central to today’s discussion on assessment.

Schools were also very distinctive from each other in terms of the discipline cultivated. Certain schools had an explicit corporal disciplinary culture. Others were more rational in their approach, in the sense that they expected children to be willing to meet norms and expectations of teachers and fall into that practice through reason. Other schools would use psychological taunts and so on to make children fall in line.

Method of learning and disciplinary culture are two striking features of Indian classrooms. I also believe they are closely connected with what I am going to call an examination or assessment culture. Krishna Kumar had spoken about a textbook culture. But probably even deeper than that is this obsession to be examined and assessed and evaluated. Almost everywhere the focus of attention was to get children to learn answers at the end of the book.
In every school we went to, wherever we got permission to observe enough spaces, we were able to describe what was going on in these dimensions and synthesise them into what I am going to call a pedagogic regime, with permutations and combinations of pedagogic types. I was able to abstract and synthesise about seven or eight types, which I will call regimes.

Like I said, there is a very strong influence of the institutional context in which the teacher works, which more or less narrows down available options. So in a given school, you will usually find that teachers tend to be of a certain kind, or the pedagogy is a certain way. There is an overarching influence of an institutional management or organisational culture that tends to produce a certain type of pedagogic regime, produced by a combination of management, clientele, homogeneity of clientele and homogeneity of expectations. It is a regime in the sense that it really gives teachers very little elbow room.

The only schools where I felt that they were teachers, was in the government school spaces. The individual classrooms had a very distinctive quality where the teacher was at the centre of it. In other schools, the teachers seemed like waifs, pale shadows of something else, carriers of many more complex messages which were circulating in the institutional space.

Pedagogic Regimes-2

PR1: ‘domesticating’
PR2—PR4: textbook culture
PR6: progressive with cultural capital
PR5: coaching/swat
PR7: progressive/nationalist

While on the one hand that the government school space was the only space in which teachers emerged as individuals, it was also marked by a kind of
laissez-faire pedagogic regime in which you would have some excellent teachers. It is an amazing pedagogy, which is very high quality, all in the vernacular. And there were other teachers whose relationship was completely massified – they focused on just domesticating the children and making sure they stayed quiet in the classroom and were under control. So that is a very complex institutional space, with bizarre variations. Otherwise, by and large, in these schools in Hyderabad, there was a lot of homogenisation.

I found broadly seven types of pedagogies. PR 1 was the ‘domesticating’ kind of pedagogy, where the focus was to keep the children quiet and make them learn a-aa-e-ee, 1-2-3-4. Even when these children went to a higher class and some of them had become literate, they were basically being schooled to be quiet. Authority emanated from the teacher – she decided the standards, and the school principal decided the expectations.

The pedagogic range PR 2-4 had all types of textbook cultures. PR 5 seemed to be progressive, but only because it worked in schools where there was a lot of cultural capital coming in from children, and teachers were able to draw from it. But even in these schools, the effort of the teachers to ‘make the children learn’ was very distinctive and obsessive.

PR 6 is distinctively Andhra – the coaching or swot-school type of pedagogic culture in which the schools sold themselves as enabling children to crack medical and engineering entrance tests. It was part of the promotional material of the school. Even though the school was up to Class 10, they followed children who had gone on to Class 12 and reported their ranks in the EAMCET examination. There were also schools whose USP was to cater to children cracking Olympiads.

Very few schools fell into PR 7, which could be considered progressive or nationalist. Not surprisingly, among schools catering to upper income groups, we find a more progressive pedagogy – that is, with some dialogue in the classroom. The teacher may insist on the textbook answer, but she allows the child to write it in her own words. That is the extent to which pedagogy may be considered progressive in India. It is dialogic to the extent that you can ask questions in the classroom and ask for clarifications. But the need to ensure that the children are able to do examinations is nevertheless very much there in the culture of the school.

The other progressive schools were those that catered to the lowest income group, like I mentioned earlier about government schools, and also in some private, unrecognised schools with religious backing. One of them was a Hindutva school and one was a madrassa. Unexpectedly, both were very
supportive of the child’s holistic development – we found an interest in children to participate in songs, and a very positive relationship of the teachers with the home. These were run by two religious fundamentalist groups, yet they had progressive pedagogy. But what is the hidden story here? Use of the vernacular. The possibility of conversations not bound by the need to be in English seemed to have opened up the possibility of richer interaction in the pedagogic space. Otherwise, by and large, other than government schools, the schools were English medium and to a great extent their pedagogies were stultified.

Now, what is the variation? PR 1 is domesticating. In PR 2, you had to get the answer right according to what the teacher said was right. In PR 3, the answer had to be right as per the textbook. In PR 4 you had to get the answer right, but possibly write it in your own words. It became more progressive. Ironically, there is an obsession with conceptual development in these schools, so they want teachers who are highly competent in their disciplines. Because if they have good content knowledge they are better equipped to enable children to learn concepts better, so they can crack the entrance exams for IIT or other colleges that have a more conceptual bend to them.

So it is a regime. The decision to use the word ‘regime’ came to my mind because you can feel the tension of the pedagogy palpably in the space of the school. You can feel it as you move through the school. It is there in the practices, in the reporting cards, everywhere. And almost all of them have the assessment culture of our society that pervades our school system. It is not that we are bringing assessment discussions into a school space which had poor or no assessment, but to that which is obsessed with examinations. It is important that we think about and discuss this interaction. I know that the quality of the existing examinations we now have is very poor. They are rote memory based tests. There are those who argue that if the assessment system got better, perhaps the pedagogy of the school would improve. So can’t we have assessment-led reform of the schooling space?

We have seen that assessments like Olympiads – which are very rich conceptual and cognitive experiences for children – can nevertheless produce a pedagogy that can be stultifying and structured with extremely high stakes. Perhaps what we are seeing is peculiar to Andhra, but I think Andhra may be just the leader and this may not be so unusual.

The study that was carried out in Kolkata did not come seem to come out as starkly. PR 5 type of schools did not seem to exist there but they may not be far behind. Some of these schools are opening branches in other cities as well,
so there is likely to be an expansion of this approach to education.

Interestingly, many of these schools actually have very sophisticated assessment practices, as well as a very vigorous maintenance of data on children’s percentages and averages. They haven’t yet moved to percentiles, but they use and track individual children’s performances in very elaborate ways. So it is not that schools don’t have this understanding and practice. But I am not sure that this is a direction in which we want curricular or pedagogic reform to go.

I would like to end this presentation by saying what I feel is the problem. It is not with assessment, but with what we regard as learning in the Indian context. And there is no imagination of learning that is not linked to assessment. Teachers know that a lot of assessment of learning happens in the course of our teaching. So we rarely need separate events to assess children. Teaching and interaction provide multiple opportunities to understand them. In fact, many items of assessment are also very good pedagogic tasks for us to do collaboratively. There is no need for a specific domain of assessment – it could come more broadly into that of teaching and learning.

I agree that the distinction between assessment and learning is very tenuous. But in the Indian concept, it seems that being measured is the focus of the learning efforts of teachers and children. The possibility that there is something like understanding, like problem solving, of learning for something larger after which assessment captures something, does not seem to exist. So I am concerned that learning will get reduced to what is assessed. Right from the time of Ralph Tyler, we know that, scientifically, assessment is just a sampling of what you have learnt. It can never map everything you have learnt. But in most schools, this is not the notion. The objectified emergence of learning outcomes seems to be the dominant thinking in the Indian context. Assessment and learning have collapsed into each other, with no distinction being made.

What does it mean to know something? What does it mean to understand something? These notions are not sufficiently unpacked or elaborated when talking about children’s learning in India. What we seem to be seeing all the time in the schools is that the entire effort of learning is actually getting reduced. If a whole lesson can be taught in 20 minutes, then the rest of the time can be spent in learning the question-answers – that is the dominant imagination with which learning is planned and executed. In this kind of context, what are the possibilities that more intelligent assessment can actually open up and make available in the Indian schooling system?
Rod Hemsell: In these 85 schools, is the NCF (National Curriculum Framework) being implemented?

Padma: A majority of these schools follow the state syllabus. Andhra has started preparing new textbooks according to the NCF only in the last two years. By and large, apart from the government schools, all the other schools use private publishers to supplement textbooks, mainly from the Holy Faith Company, Delhi. They are pretty conventional textbooks and don’t, in any way, represent the vision or thinking of the NCF. Only in the government schools you find very robust practices – the possibility of teachers with robust practices. Not all teachers were like that, but there were teachers like that in the government schools. Interestingly, in the government schools, there have been a lot of intervention programs which are actually very much more influenced by the NCF thinking or at least School Progressive Reform thinking, or remediation thinking.

Many of the more active teachers said that they didn’t worry too much about the nature of the reform that they were meant to officially implement, but adapted any reform to do the kind of teaching they felt was needed in the classroom. In that sense, they seemed like autonomous practitioners who were using their discretion in the space of the classroom, regardless of what official line they needed to maintain. And I would say that that teacher autonomy should be an important dimension or access for thinking about teacher capabilities.

Rod: I recently reviewed a report that everybody is familiar with, called Learning without Burden. It was the parent thinking behind the NCF. In that report, the observations you have made were the main focus for the development of NCF as I understand it. So, undoubtedly, this condition exists and it has been well known
for a long time. The question is whether NCF is going to actually impact that situation. Andhra might be an interesting test case to see if they really do, on a state level, try to implement NCF. Then, perhaps, there is a ray of hope that in another five years or so, there could be a different pattern.

Padma: I think that the NCF is a more productive way of thinking about what would impact the system. But if we introduce any kind of assessment into the system, it is ready for it and will just lap it up and do more of the same. Curriculum thinking has to be the point at which we really confront or challenge the structures that have emerged. Assessment-led reforms will not lead to reform. Assessment will probably be made consistent with the system that already exists, because it is structured around assessment as its mainstay.

Sunil Batra: Can you tell us a little more about the methodology you followed to arrive at these findings – how you gathered the data etc.? There are three things. One is that you made a reference to the environment of the institution that leads to this kind of pedagogic regime, and talked about serving a certain kind of clientele. But you did not make any reference to the leadership.

I am also tempted to say that there is a certain vision that is coming from the leadership of some of these schools because a large number of these are private schools. They are addressing the needs of that community, no doubt, of that clientele – but there is a vision with which they are working. That is number two.

The third is about assessments. India is a highly stratified society. And the kind of assessment models that are now coming into place in the country are meeting the needs of our stratified society and therefore will be lapped up very easily. That’s what we are saying. So what you say about the kind of assessments that are happening is that they would reinforce these kinds of stratifications.

Padma: About methodology, this was definitely not a study that would work if we had an observation schedule and fixed instruments to go with. So we had our own MA Education students and other educationists working with schedules which we had developed, but allowed them to think and experience what they were going through in the school. So they were not there just to verify numbers and tick. They were actually trained educationists in the space of the school as researchers. So in that sense, they were a part of the instrument, not just taking schedules into the school. I don’t think it would have worked if we had an informed observer – trained by us, with our instruments – going in and capturing data of this kind. This approach was not something we had anticipated in advance. Although we had piloted instruments and so on, it was not very clear, when we had data from 60 schools, what was the best
way to make sense of it.

So these are really post facto categories we evolved from the data. It was possible because in addition to the factual information, there were interviews with school heads and teachers and observations in the classroom. It was limited by the fact that it was done in one day and we didn’t have the opportunity to interact with parents extensively outside the school. But talking to the teachers and the school management, observing teachers and parents who came to the school, overhearing conversations – that’s how we built a picture.

So in that sense, it is an exploratory study. And I think that now we are in a better position to actually propose more robust measures which can be taken up if we have to go into a larger scale. I am reasonably confident that the categories we have arrived at are valid, that they will hold up to scrutiny.

Regarding the management of the school, you are absolutely right and I am glad you brought it up. I don’t have a slide with that description and I haven’t pushed the data to truly analyse that. But I found that the categories of private-aided, private-unaided, recognised and government were not enough to capture the complexity of their pedagogic regimes.

All government schools are not the same. Some were opened through the SSA (Sarva Shiksha Abhiyaan) in the last two years, and are very different from those established 40 years ago, which have a certain identity. Again, all private schools are not the same. In the Hyderabad case, I found at least five different types of private management that were important in understanding the distinctions. There were schools that had been set up by entrepreneurs who bought a school after seeing an ad in the paper and decided to get into it as a business. Some were teachers who bought the school and were running it – they envision a different kind of school as compared to a pure entrepreneur.

Then there is a different type of entrepreneur – the local tuition teacher who runs a tuition class which grows bigger and bigger and becomes a school. The pedagogy in that school is more like a corporate entity – it is trying to bring in micro management of pedagogy explicitly. In some of the schools, you find the same pedagogy, not by explicit control but by some kind of mutual understanding. In other schools, the definitions of exact pedagogies are imposed on teachers through micro management. In fact, a lot of the assessments you see in the school are geared to micro management of pedagogy. You are given scripts of what you have to do, and you have to follow it and ensure outcomes. That is how the entire pedagogy gets controlled.

So the histories and reasons why these schools were set up seem to produce a distinctive pedagogic type. Whether there are trained teachers or not actually
makes a difference. With teachers who have set up a school, you feel a bit more relieved because at least the kids do a nature camp or participate in some elocution competition, as compared to a school that has been set up by an entrepreneur who doesn’t have the imagination that these things are possible in the life of a child. So even in these small ways, teacher training really seems to matter, even if we are sceptical about a BEd degree.

Sindhu [Mathai?]: If we consider the school to be a social institution, reflecting what societal aspirations are, would you say it is a problem with the assessment culture, or is it just society and its aspirations that has found this form of assessment to be the answer? If so, can we rectify anything at all?

Secondly, how do you really understand a school? Aren’t we all coming in with certain judgements of what is progressive, what is good? We all have our lenses. Is it right to pass judgement at all?

Padma: As an educationist, I think it is right to do that. When I call something progressive, it is because it has certain characteristics which I am loosely labelling as progressive. It is where you see some dialogic exchange in the classroom at the very minimum, where the curriculum is more than just the scholastic subjects through the day, where the assembly is more than just a chant and gets over in three minutes. The assembly is actually an opportunity for somebody to come out and say something, for the teacher to interact. So when I look at that set of characteristics, I call it progressive. It is just that we like progressive. But right now, I am using it equally as a label. But then, I return to the labels and say these are the ones we endorse and these we don’t. I don’t say I endorse it even before I label it. I must first find the reasons why it deserves to be put under PR 6, which I am calling progressive because that is how we can relate to it in my scheme of things. PR 1, in my mind, is domesticating, because that’s what we see there. It is just a metaphorical way of describing the set of characteristics you see in a classroom.

Ruchika Saharan: I want to share a similar experience. And I agree with what you said about the progressive schools and the lower income schools. Working with a few schools in Delhi – some higher income and a few run by NGOs who are no longer ‘schools’ – I think they provide a more comprehensive area for the child to explore. One of the schools is Kalakaar Trust. It is based in the Kalakaar community, who are migrants from Rajasthan – puppeteers and so on. This school actually caters to their learning not only maths and science, but also the arts and how to have a career in it. We do exchanges with students from other schools, regular middle income aspirational schools. It is interesting to see how
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kids perceive each other’s school, and also how the burden of societal expectation isn’t there on a kid coming from a slum. The teachers also come back with some reflections, because it is more learning oriented and it doesn’t have to feed into a high examination system.

Padma: You are right, I think, that some schools and charitable institutions don’t have the burden of expectations in a way which children in some of these swot-schools seem to be doing. But we also know that if we don’t have any expectations from children, then they are not going to learn. So as a teacher, you have to have expectations. It is only when you do, and you have the possibility of aspirations, that the children actually respond and grow. So if you go into a classroom with the belief that these children are never going to learn anything, then you don’t have any expectations. But then you are complacent. There is a distinction. You are not saying “no expectations”, but you are also saying that you are not burdened by high stakes, testing oriented expectations.

This is what I call individuating, in the sense that you are the bearer of your success and failure. So in that sense it is very much consonant with a liberal imagination that every individual carries – in their hand or in their mind – the possibility of what they will become or what they will not. You get individuated in the higher end spaces. In the lower end spaces, you are massified. You never emerge as an individual. You don’t get noticed unless you are really charismatic. That is the kind of tension we see across these schools.

Ruchi: That’s not the way it is. They have expectations, but a different set. It allows more of experiential learning to evolve because they have the time. The school may be oriented towards learning rather than exams, and they expect the children to become artists or puppeteers.

Padma: Some of these schools don’t have playgrounds and games for children because it will make children very rambunctious and difficult to control. They state it upfront. Not only that, they actually have discipline control people on every floor. The violence in the school is palpable. Complaints come into the office about how someone jabbed another with a ball pen. There is violence of a physical kind and also of a psychological kind.

Sreekanth Sreedharan: The crux of what you are saying is in the way you have cut up the pedagogic regimes. You are in a way saying that if you go up some kind of a socio-economic ladder, you see a movement from a domesticating kind of a school to a progressive, competitive, test-preparation kind of a school.
But at the same time, you are also associating some negative connotations with that. We need a little bit of elaboration as to why it is bad. For example, if we see this as a combination of something good happening, which is helping children understand concepts – conceptual understanding as opposed to rote memorisation – coupled with a pragmatic response to social realities, what is wrong with that? That could also be a view. I am not saying I subscribe to this view. I am just trying to understand why you are saying that this is necessarily bad. We know a little bit of that social reality in Andhra. They do see that those who manage to do well have a better lifestyle and move on. These factors are there in the parents’ and teachers’ minds.

The follow-up question is, are you also saying that this process is in some way a unitary test? In the process of this test preparation kind of classroom activity, are we leaving out a lot of children?

**Padma:** No. I am not saying that this is producing inequality within the classroom. My study definitely is not equipped to answer that question.

Is there a hierarchy in this? Yes and no. They seem to follow some hierarchy because you can see elaborations of certain dimensions of pedagogic regimes. They seem to be getting better in some ways. There is a little bit more dialogue, and a little bit more positive empathy with the child.

PR 5 is actually the space which has a culmination of conceptual learning and extreme test-driven maintaining of children’s learning, which is not what you see in PR 4. So there is a difference between these two. This is something really interesting, and it is spreading. You have these names in Andhra – Techno School, Concept School. What is techno? It is a method of maintaining pedagogy through a certain regimen of testing, which is written in the book. Techno means you enter the school and sign an oath that by the end of the year you would have achieved certain things, had these many tests. This is the script you are given. So ‘techno’ is the USP of the school – a very tightly maintained regimen.

So on the one hand, you are teaching for concept, but on the other hand, you have entirely turned it into an assessment-driven package. People have now realised that techno is not enough. There must be all-round development plus some Olympiads. That is the new thing which is being sold, but then you make sure it is only for people who have the cultural capital.

**Devika Nadig:** I have a very simple question, again related to the methodology used for gathering the data. Did anybody look at what kind of teaching plans these teachers make? Do they stake the learning outcomes upfront where we
should be talking about what the child will know, will be able to do and so on? Do they also lay down the teaching or instructional strategy that they will employ in order to achieve these aims? Are the teachers at least aware that they could be using different strategies? They would generate a very different kind of classroom environment if they used such strategies.

**Padma:** We did not specifically look at this, but were exploring the teacher’s sense of autonomy and where her practice was coming from. So we interviewed teachers to ask them how they prepared for the lessons, to what extent the management was telling them what to do, etc.

What we did find is that in schools run by teachers who had become owners, teachers frequently reported more sense of freedom and congeniality. In one such school, I remember a teacher telling me that she felt a sense of freedom because the head allowed her to experiment with how to go about the lesson. I asked her, can you give me an example of something that you tried? And she told me, interestingly, “In our Indian scriptures, memorisation is given a lot of importance as a way of learning. So in my lesson plan children will memorise first and then learn.” She was invoking ideas from whatever resource she had, which was Hindu scriptures in which memorisation is very central.

But by and large, apart from schools where there were scripted lessons, there were very few statements explicitly of teaching objectives and strategies.

**Vyjayanthi Sankar:** I’ve lived in Hyderabad and my daughter finished school there, so I know how the system works, and I have also worked with government schools. One point I want to make is that what seems to be driving the system is the expectation. When we put the children in a school, whatever type it may be, the expectation is that the child will be competitive and come out on top. So testing has high stakes and is combined with, as you say, memory – end-of-the-book questions have to be memorised and repeated. That is the pressure. However, I would not group the whole thing and say that assessment-led reform hence may not work. Because just like there are all types of learning, there are also all types of assessment. We must make a distinction between high stakes, marks oriented testing with low stakes, diagnostic testing of a larger system which can actually help the system reform.

**Padma:** In some of these schools, especially the swot-schools, there was no diagnostic testing of the sort that EI (Educational Initiatives) does. But there was some kind of diagnosing, or at least tracking, of children’s learning that was going on. In other words, they actually compared children’s marks – this term’s with the previous term’s – and there were complex arrow marks going
up and down to trace how are they progressing.

Vyjayanthi: Yes, I know that. My daughter used to be shifted every three months to a different group, depending upon her percentile.

Padma: But even this is tied up with a high stakes overall model. So you are managing performance all the time.

Sharad Behar: First, I am very happy – this is a very exciting study. Two, I believe that the study is still in progress.

Why shouldn’t you call it a school regime instead of pedagogic regime? How are you differentiating between them? Next, have you done, or do you plan to undertake, analysis of the factors that contribute to these kinds of regimes? Obviously, such a regime cannot come into being only because of assessments. There must be multiple factors, and there must be the roles of multiple stakeholders. I would like to understand how the regime comes about.

Next, do you think that the teacher is just a prisoner? You have talked about autonomy in government schools. To what extent does the teacher contribute to changing this regime and culture? Or is he completely helpless? Also, you are forgetting the head teacher in all these discussions.

The next is, for me, very important. You said that government school teachers have greater autonomy. In that case, in this categorisation, where are the government schools? Are they also in different categories? Or do they fall into only one or two categories?

Padma: I have deliberately grouped some of the schools according to their clientele type – not by management type.

Behar: I found it encouraging because if you are suggesting that there is considerable scope for improvement or intervention in the government school system where there is greater autonomy, then with teacher empowerment there could be more improvement – a change in the regime – than in other schools.

And finally, a question for reflection. We talk about education for change – for social change. Like some of the others have also commented, it appears as if, in this study, there is an application of social hierarchy. How do we see education leading to change, or this kind of education reinforcing the social situation?

Padma: It can be called a schooling regime or a pedagogic regime – not a school. In that sense, there is a close relationship between the idea of schooling and pedagogy. It is intentional from the point of view of the school set-up
as a teaching-learning space. In that sense, it is pedagogy – not restricted to teacher.

Is the teacher helpless in it? In the private schools, I think so. Those spaces are quite structured by their institutional contexts and controlled by them. So the teacher alone is not a position to do very differently from what the institution expects her to do, while in the government schools it is possible.

The social hierarchy getting replicated – it seems to be, isn’t it? Depressingly so. But that is the point I also want to make, about this social hierarchy getting replicated both through homogenisation and the pedagogic forms. One axis of analysis that I found very interesting was schools where the classrooms had a massified approach versus schools where the classrooms had an individuating one. That more or less maps onto the levels of education that even Bernstein visualises – that there will only be some who will emerge with a self identity to lead, or to feel in control of a situation. The others will really have to fit in wherever they are. So even ‘individuating’ doesn’t make you ‘individualised’ in terms of a confident self identity, and that seems to happen across the schooling types. You are not allowed to emerge as an individual in every school space. The only schools at the lower end where you can emerge as an individual are the ones in the vernacular medium. So that’s where there is a possibility of some critical counter-culture possibility setting.

**Behar:** And this question about the factors that contribute to this regime...?

**Padma:** That will need another study.

**Behar:** Your current data won’t help you?

**Padma:** I am willing to go to one level. We can map management types and pedagogies, and speculate on those. But for other issues around it, we would have to redo the study.

**Jacob Tharu:** A brief question to take you back to the earlier discussion about the assessment culture driven by high stakes. I am pushing it to say that it might not be quite ready. We have always had an examination driven system. It started with [Sarvapalli?] Radhakrishnan and much earlier. Does measurement driven culture come from PR 4, where this constant coaching has become a methodology? All of us grew up with the final exam being very important – the stakes were still high and only some of us made it through. But this difference seems to be emerging from a measurement culture which comes from more frequent assessment, which
An Assessment Culture: Implications for Individuals and Society
Padma Sarangapani

is seen as a pedagogic tool.

**Padma:** I think that is absolutely the point. When we go into a classroom we can see the way in which teachers make children revise and repeat, rehearse and practice. That is really a new development. There’s a huge amount of time going into those practices. But you are right. There is a shift. We don’t have scripts from old classrooms that will enable us to say how much it has changed. But I suspect that this is now increasing.

These are distinct phases in the lesson and what makes a difference, from classroom to classroom, is how much time gets invested in every phase. Interestingly, in India all the schools do all the phases. There is no school which says, revise at home. Every school makes this revision happen in school and takes responsibility for it. Different schools take different levels of responsibility.

So that is how it is intensified. That is the way in which what has to be learnt is getting more and more defined, controlled and managed in the space of the school. So in that, you are right. I did feel that this is a new development. Performance management is also something new. It is becoming more scientific.

**Ramkumar:** We have varieties of schools like international schools and various branded schools, minority and tribal schools, madrassas, unaided schools and religious muths. Do we have studies about what happens in classrooms under Indian conditions?

Assuming that we have understood very little of that, and considering assessment-led reforms that stress more on input and output, can we question the very credibility and legitimacy of the findings of assessment-led reforms?

Thirdly, considering that the tuition culture spreads even to kindergarten level, children have three types of study institutions – home, tuition class and school. Are there studies on what exactly happens to the child? Do the conflicts and contradictions confuse the child?

**Padma:** About the third point, we don’t have studies like that yet. But some ethnographies are now beginning to look at the home, school and tuition space. So hopefully we will soon have some core understanding of that.

Regarding legitimacy of these assessment studies, I can’t comment now. It requires more thinking.

**Hridayakant Dewan (Hardy):** One of the things that perhaps we have not
included in the study is whether the school has a vision of itself. One of the reasons that we have this external need to be justified is because the school does not have a specific role for itself. So either the role has to be performed by or given by the textbook, or by an external evaluator. That’s the real issue. We should start thinking about a study that will give us an understanding about whether the school, as a collective set of people, has a vision for itself. The Kalakaar school is a very interesting example of where there is at least some vision about where they want to place their children. The absence of that is defining the Indian education system.

Padma: In fact, the schools we see here were set up about 30 years ago and have some social mission articulated. The timetable is more elaborate. We actually looked for this aspect in the institutions and explicitly looked for interviews on those issues as well. You are right – that distinctly seems to be one of the parameters on which schools seem to be different from each other. Actually, it is interesting – the schools which were started as a business had no problem about saying that is why they started the school. It was not seen as something that lacked something. “We started this for business” is quite candidly stated.

Neha Buch: You mentioned religious schools and how the connection with the students was very strong. What is their vision? Are they looking at assessments only around subject matter or something else? And what is the sort of relationship, if any, that they have with the community and the parents? Is there any comparative study that you might have observed around that?

Padma: The kinship with children and the enjoyment of what children can do is very evident when you speak to the people there – a distinctive articulation. They are very aware of the achievements of children. But there are no practices of assessment as such which govern that space.

What you find in these spaces and in the charitable schools is that teachers use their social networks to help children who have the potential or spark. If there are home issues interrupting or preventing the child from learning, teachers make an effort to reach out to the home space to enable the child to succeed. These kinds of investments are not something they will do for all the children because they don’t feel that all the children will succeed. They may put in the effort for those who have the potential or the spark. But they are definitely linked to religious groups – so also the social networks that they draw upon. I am not saying this in a negative way because, at least in these two spaces, children flourish.
There was a madrassa which was very conventional and interested in Arabic learning as the end point. But it was also interested in getting the children into middle school in another locality and enabling the child to get mainstreamed. So you find a range of intentions getting articulated. But here too, individual teachers are really the ones who are making the things happen.

In another aided school, four amazing teachers were making things happen in that community. You could really feel the vibrancy of these individuals in the school space. And you know that it was not something being enacted because you were an unexpected, silent visitor.
Conceptual Issues in Assessment
Rohit Dhankar

Rohit Dhankar is professor and director, academic development at Azim Premji University, Bangalore. He also founded Digantar, a voluntary organization in Jaipur engaged in providing alternative education to rural children. Rohit has been part of many NCERT initiatives in developing material and curriculum through various committees. He was an integral part of the National Curriculum Framework 2005 process as a member of the National Steering Committee. He is also a part of the collaborative group of institutions that developed the M.A. Elementary Education programme of TISS where he teaches the Philosophy of Education course. His current interests are in epistemology of education and curriculum studies. Rohit talks about conceptual issues in assessment, particularly large-scale assessments.
I will be talking about large-scale assessments and some conceptual issues in that. I will not talk at all about formative assessments. It would be best to expand our notion of pedagogy in such a manner that formative assessment becomes a necessary part of it.

The second thing is that this presentation is only about external large-scale assessments, many of which are management or managerial in a certain sense. I am not saying that they are useless – they might be needed for various reasons. When you certify a child and say that she has completed her elementary or secondary education or whatever, you do require some sort of assessment on the basis of which you can say that. If you want to really see if your school is working all right, and if you want to prove to the parents that their children are working, then you do require assessments. My focus is more about the impact they have, how they are being done, and whether we can do anything better.

I wouldn’t differentiate much between high stake and low stake assessment because it seems to me that you can proclaim that something is a low stake assessment, and some Education Secretary might get it into his head that our education system is working very badly and therefore, on the basis of your recommendation, prepare some kind of sheet and send it to your school. This would make the teacher’s life very miserable. So your intention apart, any kind of proclamation on how children are learning and how much they are learning could always be used. So I won’t bother, in this particular talk, about low stake or high stake, or that kind of thing.

I will talk of mainly three interconnected conceptual issues. First, I will take up the question of what exactly is assessed – for example, PISA (Programme for International Student Assessment). The second will be testing of thin knowledge versus rich knowledge. The third is Methodological Implications – prescriptive versus expansive modes. Then I will talk a little about accountability issues. There might be some unwarranted attempts to influence an education system by those who do not understand it, and through these assessments we may come to that result. We have to decide whether this is power play or objective and worthwhile evidence after dealing with these conceptual issues.

What does PISA assess? I am using an article named ‘Knowledge and Skills for PISA: Assessing the Assessment’, written by Nina Bonderup Dohn, published in 2007. PISA’s claim is that they assess knowledge and skills for life, which means that they are concerned with the capacity of students to apply knowledge and skills and to analyse, reason and communicate effectively as they
pose, solve and interpret problems in a variety of real-life situations. PISA does not tell you that they are assessing their curricular knowledge or testing against the criteria of their curriculum. They speak about how these people are going to act in a democratic society and also as contributors to economic processes. What they want to claim through their test is how successful these people are going to be in this kind of situation. This is an important point to note because this idea of who is at the top and who is at the bottom in PISA tests actually gets a lot of weight because of this assumption.

She argues that exercising competence in any situation amounts to acting adequately in relation to the complex demands, possibilities and restrictions of the situations. If I am buying groceries in a mall, I require not only mathematics. There are several considerations, including how much space I have in my fridge, what the prices are, what I can afford, how I will carry things back and so on. This is a very simple problem. Here the issue is not only mathematical knowledge, but using appropriate mathematical knowledge in that particular situation. Therefore, someone who might be very good at the four fundamental operations may still fail in trying to assess how much he can afford. Some people fail in a more interesting manner. They do know how much money they have and whether they can pay today or not, but they cannot see what the situation could be like at the end of the month. Here mathematics does not help you. Or, if I want to solve the problem about how much chemical fertiliser I should use in my field, it is not only my knowledge of chemistry that will help. So in real-life utilisation of knowledge, more than one dimension is in play. If someone claims to be testing skills and knowledge for real-life, then all those situations should be taken into consideration.

With this in mind, she identifies three levels of problem determination and possible solution demarcation in real-life. One is domain internal level, which means how much Mathematics or Chemistry or Language you know. Another is problem internal context level, which means that disciplinary domain laws should be respected even in solving complex life problems. Therefore some kind of adjustment and flexibility might be required. The third is the problem setting context level – actual real-life demands and limitations. This is more to do with understanding a real-life situation and making a decision in that. You use your domain knowledge in an appropriate manner to come up with a kind of solution or response that would be appropriate.

No description provided in this situation can ever adequately represent the demands of real-life problem solving. Even when I write the whole story of a problem describing what someone was doing, we should still understand that this is being read and responded to in the examination hall. The real-life
situation that will occur in the marketplace or shop floor or agricultural field can never be adequately represented in a test situation.

Is domain knowledge in this situation relevant in real-life problems? Of course, yes. So if you want to solve some problem that requires knowledge of Mathematics or Physics, then having that domain knowledge is a necessary condition – but not a sufficient condition. You might fail to respond to the real-life situation because you might fail to adjust and to see the requirements.

PISA’s power to influence national educational systems comes from the assumption that what PISA tests is not really the domain knowledge prescribed in the curriculum but the capability of the children to act more efficiently and appropriately in real life. There seems to be a conceptual gap between the two things, which could be filled with some more research. You need independent research to figure out whether those who score high in PISA tests are actually more successful in real-life situations worldwide. Such studies are not available.

If you want to believe what’s written in this article, then what is PISA testing? Well, PISA is testing PISA knowledge. Is PISA knowledge related to real-life problem solving? It may or may not be. There is not much evidence at this moment. But how does PISA derive its respectability, so that every nation wants to be at the top of this assessment? Because of this assumption which actually cannot be corroborated by any evidence. That is one problem and I am calling it ‘What are we actually testing?’.

Though she gives lots of examples, there are culture specific questions, ambiguity, downright wrong interpretation and several other things. But that is not the issue here because I am not challenging, in this presentation, whether they can test domain knowledge or not. I am simply challenging whether domain knowledge, tested in this manner, is good enough to solve problems in real life. And there does not seem to be much evidence for that.

We go to the next level of what is being tested – thin knowledge versus rich knowledge. The knowledge being tested may not be directly applicable in real-life situations, but is that knowledge being tested properly?

This is based on an article written by Andrew Davis and published in 2006. It is called ‘High Stakes Testing and the Structure of the Mind’. In testing, we observe certain things which are related to the behaviour of the learner. Once we have that data, we can interpret it, apply logic and imagination to it, and be wishful thinkers. But we should be careful. Getting data from behaviour does not mean that interpretation has to be behaviourist. Behaviourism is a theory which tries to explain behaviour with certain theoretical assumptions,
and there could be other theories which explain behaviour with different assumptions.

So what do we do after we get our data? We try to construct the picture of the learner’s mind. Otherwise, when we say the child can do this and cannot do that, understands this but cannot understand that, we are predicting what may be the contents of the child’s mind on the basis of what we have observed outside in the behaviour. We construct a picture of the child’s mind. The writer defines – and this is a well-known distinction – that rich knowledge is characterised as knowledge appropriately connected to other knowledge in the mind of the knower. If you take any simple proposition, like the earth going around the sun, then there are a dozen or more propositions of this nature which give it content. And only in this connection does it become knowledge. Thin knowledge, in contrast, lacks those connections. And thinnest knowledge, of course, would hardly be knowledge – it means that the proposition stands alone, not connected to anything else, and is hardly knowledge.

So the usability of knowledge – making sense in real life, using it further, using it for learning, drawing conclusions, etc. – depends on how rich the connections are. I believe this paragraph will make it a little clearer, though there are certain claims here which we might contest and may not like:

It is impossible to take an atomistic approach because it is impossible to make sense of the idea of having only one or two beliefs. Beliefs do not come one at a time. What identifies as belief and makes the belief what it is, is the relationship among many other beliefs. Because of the fact that beliefs are individualised and identified by their relation to other beliefs, one must have a large number of beliefs if one is to have any of them.

Again, I can give the example that if you want to believe that the earth is flat, or round, you cannot have this belief alone. You will have a battery of beliefs together. They will give you content, justify it, prove it, declare it true or false – always in that connection. So ‘beliefs support one another and give each other content’ is the rich view of knowledge. The argument is that this rich knowledge is the only knowledge worth having because only that can be utilised in further learning, problem solving, decision making, fighting, or whatever you want to do in life. It is irrespective of good and bad – even in burglary, you require this knowledge and lots of connections of this nature.

Large-scale assessments take the beliefs to be atomic and can never test their connectedness. If you look at most of the questions, they test one or two things. Even if you connect to make a series of more than one question, they will still be very limited. And the next conceptual issue will tell us what the
problem is, even with that. So this kind of testing simply tests useless strings of words at one level. That might be a very strong statement but when we go to the next issue it will be held with more validity. It may not be totally acceptable, but a little more palatable. So that is the second issue – that the kind of knowledge which is testable through the large-scale kind of system is very thin knowledge, its relationship with further learning and life is rather thin.

The third issue is 'Prescriptive versus Expansive Modes of Assessment – Reliability and Validity'. That relationship is such that if you start testing rich knowledge, then the validity increases and objectivity and reliability go down. And if you want to make it more reliable and objective, then the validity at the level of the novice mind goes down and you will have plenty of objectivity and reliability which is empty within. That is the problem.

What if the answers give a right and wrong scenario? For example, to the question, “Who is the Prime Minister of India?” the answer given is, “Manmohan Singh, who is also the president of the BJP.” Why did we ask this child who the Prime Minister of India is? We must try to understand, by making a picture of his mind in our own minds, how well the child understands the political situation of the country. He gives a correct answer – Manmohan Singh. But he also gives an answer to a question you didn’t ask, which tells you that the answer he gave was formally correct but actually useless.

When a child gives an answer, it may be formally correct but the teacher immediately knows there is something wrong with it. How does the teacher get those indications? It could be the way the child speaks, or through some extra information or extra word. It is a familiar experience for a teacher. If this sounds far-fetched to you, here’s an example, a real example which comes from a nationally televised quiz program: “Who wrote Harshacharita?” “Banabhatta.” “Name the king in whose court Banabhatta was a respected member.” “Akbar.” Unfortunately, Harshacharita was written many thousand years before Akbar. So how much historical sense this person has is quite obvious.

You might think that this happens with those who haven’t studied much. So here are two statements from a reasonably well known academic. This is slightly technical: “Contemporary epistemology and analysis of knowledge as Justified True Belief cannot account for scientific knowledge.” In epistemology, people call a belief ‘knowledge’ only when that belief is justified and true. This analysis, according to this academic, cannot properly understand scientific knowledge. But when you ask him what scientific knowledge is, you
get the next definition: “Scientific knowledge is a rationally justified conclusion considered true beyond reasonable doubt by the scientists.” He doesn’t see that this statement varies from the first one. About a hundred or two hundred years back, the situation might have been different. But in contemporary epistemology, this again presents a right/wrong scenario.

This is not a rare scenario. It may be much more common than we think. Right/wrong scenarios don’t express or test knowledge. They actually express misunderstandings, and that misunderstanding is taken as knowledge.

Large-scale testing uses a prescriptive mode of testing, which means the answer is determined beforehand – if a child gives that answer then he has knowledge, if not, he doesn’t have knowledge. It could well be that the child can give the desired answer at that moment and still not have the knowledge. That is the point that this right/wrong scenario tries to prove. And you can never get beyond this difficulty in large-scale paper-pencil testing.

Large-scale paper-pencil testing requires that there must be some standard answers. These answers are not recorded by an expert, but possibly by people trained for two hours, or two days – rarely beyond three days – who administer that test, record that answer, run that and come back.

Therefore there should be a reasonable uniformity in gathering those answers in a way that the objectivity is not lost between these thousands of people who are gathering them in this manner. That demands that there should be a descriptive answer which would be considered true. But if you want to go beyond that, which this particular person does, it becomes expansive – in the sense that, if the assessor notices that something might be amiss, then he or she takes the conversation a little bit further.

The kind of questions that could be asked can never be exhausted in advance. They will depend on the testing situation in which the answer is given – that answer is interpreted by the assessor and the next question comes from the assessment of the assessor, the linkages the assessor makes. If we allow that, then perhaps you can gauge the authenticity of the learner’s knowledge a little bit more. But variability across assessors would be huge, and therefore reliability in the data will go down. So there seems to be a pull in two different directions, and when you do large-scale assessment, you necessarily have to take one stand, which again does not seem to test any knowledge.

But connected knowledge and understanding can be assessed only through the expansive mode. If that is allowed, reliability and objectivity across assessors diminish. What can be reliably assessed is not valid as far as the learner’s knowledge is concerned and what can be validly assessed does not seem to be
very reliable and objective.

Let us take two examples. One is the PISA test or knowledge. Its respect comes from people accepting its claim that they are testing real-life knowledge, which seems to be an unjustified claim from this angle. Another is the ASER (Assessment Survey Evaluation Research) in which – whatever the subject – I see three or four problems. One is that there are a large number of volunteers who actually know nothing about reading and writing pedagogy and very little about education. So the reliability is that the tests are administered and designed in such a manner that anyone can administer them. This is like the thought that anyone who knows ka, kha, ga can teach ka, kha, ga in the classroom, the assumption that anyone who can read can teach how to read. Therefore teachers need to have passed only the 5th or 6th Standard. And anyone who can read the text can assess whether the child is reading the text or not. Why? Because they have prepared a fool-proof test and ways of administering it.

The procedure goes somewhat like this. If I am an assessor, I show a child a text, maybe letters first, and ask her to read any five. If she can't, I mark that the child cannot read letters, and terminate the test for this child. If the child can read four correctly, then I go to the next level. If she doesn't, then I mark that she doesn't and terminate the test for her. If the child can read, then I go on to words. Again, if the child can read a certain number of words correctly, I go to the sentence, and then to texts. So there is a set routine, and the assessor already knows the answers.

If you look at language pedagogy these days, almost no one believes that learning happens in this manner. Reading does not emerge – first the letters, when you have mastered letters, then words, then sentences, and then the text or the paragraph. This seems to be a retrograde methodology because these are not simply disjointed tests of reading letters, sentences, etc. They are supposed to form steps in learning how to read. As soon as you interpret them as steps, it gives you a pedagogy. That pedagogy is retrograde and outmoded.

Two things are happening simultaneously. One, the problem in India, identified in literacy pedagogy or reading and writing – which is of course decoding as well, but the main problem is not decoding. You can give students who have finished school or college a one-page text, and they may read it very well, even put intonations in it. But as far as getting the meaning out of it is concerned, they are blank, which means they are decoding without comprehension. Many believe and there are some studies to show that this is also
true in early childhood, when for a very long time you teach a child in such a manner that meaning making does not happen, then you get into a way of thinking in which meaning making becomes secondary in reading and decoding becomes primary. That is the problem with the pedagogy, and you are now assessing children on the basis of this pedagogy.

Assessment is given a lot of space in the press and media and everywhere. On the basis of that, like PISA grades nations, states get worried about doing better in this test which has got nothing to do with learning to understand. Therefore, for the last 20 years, the Indian education system has been battling against this letter pedagogy and shifting towards a more comprehensive, meaning making kind of pedagogy – and they have failed. This very highly popular assessment reinforces the same old pedagogy.

I am not saying that this didn’t do any good. Perhaps this attracted attention to children’s incapability to read and write at a level. But the kind of definition of and claims about reading and writing that are being made are wrong. The thrust the education system is getting is all wrong.

This could apply to all large-scale testing – and I am deliberately saying, at least to PISA and ASER. It could be the case that they do not know or understand what all this language pedagogy implies. But then I don’t know what they are doing in all this. They may be concerned and good-hearted people, but totally unfit to assess. The second position could be that they understand the problem and have adequate response to it – then they should make that response public. The third could be that they understand the problem and have no response but still go ahead. That is downright irresponsibility in education.

The capability of these tests to push the education systems in this or that direction is very high, and that capability comes from accepting these assumptions to be true while they are false. PISA is giving sleepless nights to many in the education system in many countries. Every one of them wants to be at the top, or at least at a respectable place. There is nothing wrong in that. But the issue is that this doesn’t bear out what PISA proclaims. Similarly, ASER gets us worried, which is fine, but the kind of conceptual connections they are making are not sound enough. We don’t know whether an education system influenced in this manner will go in the right or wrong direction.

We are also progressing towards assessing social and emotional issues – and trying to do that without really defining what they are, how to teach them and how to assess them. The day before yesterday, when I was asking those questions (during the panel discussion on social and emotional learning), I
did not actually really mean that there may not be differences. All I meant was that if you take these issues as totally distinctive and disjointed with cognitive and knowledge issues, then there will be one kind of methodology of teaching and one kind of testing apparatus. If you see them as closely connected and influencing each other, then you will arrive at a different methodology of teaching and testing. And these two methodologies are going to give you two different results. Therefore, understanding the close relationship is perhaps necessary.

I am arguing two or three things. One is that when we are trying to develop schemes for assessment, we should be conceptually much clearer, and those not well-versed in pedagogy and education should be more hesitant instead of proclaiming what children know or not.

The second part is that most large-scale testing has an access to media and funds and they are therefore very influential. There is talk of systems being accountable to the people, but to whom are they accountable for the mess they make? They can only be accountable to people working in education, who know testing, education and conceptual muddles. Therefore education scholars have the responsibility to constantly raise a debate on this. Through this kind of constant interaction and debate, in a few coming years, we might find some ways of testing which are more reliable and valid.

The third thing is that those reading these reports should take them with a pinch of salt, and report writers should be more humble than they are at the moment.
**Vijay Gupta:** As soon as you make any testing impersonal, where the learner and the tester are separate, you will have the issue of not being able to test rich knowledge. By that logic, even the local assessment that happens in schools – which is also impersonal, if it is not in the classrooms – will have the same problem. So the issue is probably not about large-scale or small-scale. The issue is that if it is impersonal, and we can’t gauge the connections the child has made, it will be inadequate. Have I understood you right?

**Rohit:** It is largely right, but any kind of paper-pencil testing where the possibility of interaction is nil, is doubtful. Therefore you need corroborating data from other sources. For example, in a school, I might be doing this paper-pencil testing. But at the same time, if I am occasionally interacting with the children and I have information from other ways also, then I can put both the things together and come to certain conclusions. That’s what I am trying to say.

**Sunil Batra:** What kind of beliefs do certain people follow that leads them to continue to test for thin knowledge?

**Rohit:** Knowledge is also understood as information, and people imagine that if someone can give a correct answer, then he understands it with appropriate meanings and connections. The assumption may be in good faith, and they might even find evidence for this. Those who do well in their matriculation examination end up getting better jobs – no one looks to see if family connections and other things played a part. So they might have such assumptions. We should be a little bit more aware of these things.

**Hridayakant Dewan (Hardy):** I would like to know your position on conceptual issues on large-scale assessment, because one fundamental issue you have not
addressed is its purpose. You come to the point that large-scale assessment can only look at thin knowledge, and even for that you need a better prepared educator and a better prepared way of functioning. The basic conceptual question about large-scale testing is, what is its purpose? And how frequently does that purpose need to be addressed. Given that you can only have very circumscribed objectives and purposes, what kind of emphasis and importance must be given to it? That is a major issue with regard to large-scale testing. If we simply say that the problem is that some people who don’t know pedagogy are doing this, then we are missing the point. We can’t do better because the purpose of large-scale testing will need us to look for only thin knowledge. There is no way of aligning the sociological gambit of educational purposes over a large part of it.

**Rohit:** If you can give me that purpose, I will be able to say something better.

**Hardy:** I can’t give you that purpose. My problem with large-scale testing is that I seem to find it pointless. I can do large-scale testing to see whether children in India read. For that, any very small test done once in ten years is fine. If there is a passage that has to be read, and you make a broad statement saying you found that 50 per cent of the children couldn’t read that passage, it shows that the country needs to think about how to make children learn to read. But if you go further than that, then there are serious issues that emerge about what large-scale testing can do and what it can be used for.

**Rohit:** You seem to be saying that it serves no purpose, so it is better if it is junked. That is fine. But let me remind you that I said PISA actually declares that they are testing knowledge and skills for real-life situations in the 21st century. They claim they are testing 15-year-olds for preparedness of how to deal with democratic and capitalist societies in which contribution to economic processes, arriving at decisions and functioning as citizens is important. The paper I quoted and the argument I am building is that they cannot fulfil this claim.

Now let us look at ASER. Whatever their purpose might be, the kind of discourse they generate and the claims about children’s reading that they make are not sustainable. The pedagogical direction they push the Indian education system and teacher in, is actually retrograde. I am talking of the impact they have.

**Hardy:** That I don’t disagree with. I am only saying that a prima facie reasonable purpose cannot be stated. And you have not stated that.
Rohit: Thank you – I should have said that.

Rod Hemsell: I want to question the logic of the argumentation ex negativo. I am not a great fan of this type of assessment. But to say that the hypothesis made by PISA that domain knowledge is transferable to real life situations and therefore we are going to teach and assess domain knowledge, is undoubtedly itself based upon some kind of assessment of the situation that students face in relation to school and life. It is not possible to assess the outcome of that assumption until the system has been implemented and there are actual outcomes. So to negate the assumption because we are not yet able to affirm the outcome seems to be questionable logic.

Similarly, with ASER, the reading pedagogy that you have critiqued to some extent on the grounds that it does not include the development of the comprehension of meaning of what is read, doesn’t negate the value of the pedagogy itself insofar as it helps to assess decoding skills. And it is very common in primary schools to use that decoding methodology and then to supplement it with comprehension-type exercises to ensure that both outcomes are being met. But because the comprehension hasn’t yet been achieved doesn’t necessarily negate the blending of sounds and recognition of words and construction of sentences, which are also fundamentally necessary.

Rohit: I have two slightly different responses about PISA. They don’t actually say that they are testing domain knowledge. PISA’s claim is that they are testing knowledge and skills for real-life situations, and that is the assumption being questioned. Of course this could be corroborated in future, but it sounds like an argument from ignorance. I can claim anything today, which might have a reasonable argument against it, and say that till this is disproved, it should be accepted. That is going too quickly in a direction.

With ASER, this critique is coming from a pedagogical position. I hinted that there are many people in our country who can decode but cannot make meaning, and there have been attempts to understand why this is happening. Part of the blame is put on teaching reading and writing in such a manner that for the first two years, you are not expected to make meaning. By that time, you get settled into a particular way of looking at reading and writing, and that seems to be the problem with the pedagogy.

At the second level, there are umpteen numbers of experiments in the country that take a more meaning making approach to reading and writing. In the first one year, children learn better in both decoding and meaning making.

The third thing is that if they accept that they are not bothered about
comprehension but about decoding, then there is still perhaps some justification. But they say that they are testing language skills, which necessarily have comprehension in them.

Finally, if as a teacher I condition my children into decoding initially for quite some time, how easy it will be for me to change to meaning making, I don’t know. I am not making a strong claim here. I am making a strong claim the other way around – that if I teach my children together with meaning making, then both happen simultaneously and quickly.

**Jacob Tharu:** This is a discussion which I hope will continue for over five years. It will take us that long. I’d like to endorse the first two or three observations. One is that much of what you said applies to all formal testing. You did make that clarification. But you have this wherever you have an already affixed, approved, standardised test. I am asking you to reflect on the criteria for assessment. They have their echoes in the world of law. Our High Courts and Supreme Court are not interested in truth. They are interested in finding out, according to the law, can something be interpreted this way or that way? We need to think how we can break out of the legality argument, which is about objectivity, reliability – which is necessary in law, maybe, but even that is being questioned by a whole lot of people now. So that’s a challenge.

I’d like to pick up the point about the purposes of large-scale assessment and pose a question. Why these small-scale assessments like ASER and a little later, Educational Initiatives? I call them small-scale because Andhra Pradesh alone, in March, gets ten lakh scripts for English, Telugu, Mathematics, Physics and Chemistry. And across the country, we generate something like 120-125 million. That data has always been there – we’ve never bothered to look.

I think we are mistaking large-scale testing with sample surveys. A sample survey picks up a few things and gives us a larger picture. Now, obviously this larger picture makes sense. There is something in the discourse of management of education – the accountability argument – where this makes sense. I am no defender of what ASER, Pratham or Educational Initiatives does – as students of testing, they have to do certain things. Rukmini (of Pratham) said we are reductionists. They are only trying to say that something that should happen in Standard One is not happening. I’d like to separate this from Pratham’s solution for teaching reading – if anyone can teach reading in two weeks, why do we need to pay teachers for a whole year?

With regard to conceptual issues, what does a sample based survey of achievement tell us about the system? The justification is the health of the system. The difference is that in conventional testing, the individual student is responsible,
so the number of failures doesn’t bother us. He should have studied and gone for
tuitions, his parents should have been educated – it’s not our fault.

This has brought in a discussion about the accountability of the system. It is
going absolutely in the wrong way. What the purpose of assessment feeds into is
quick pictures of the nation with a rank ordering of states, which has never come.
We have never said that because the matriculation pass percentage in Tamil
Nadu was higher than that of Kerala, either that Kerala had higher standards, or
that Madras had higher standards. That was not there, but has come in today.
We need to understand why we are all buying into this.

Rohit: I don’t have much to say on that, except for one thing. Construction in
social sciences is somewhat procedural. You decide the procedure, something
passes that criterion and it is the truth. Social scientists can actually build a
different theory to defend their procedures. Educational testing is a social
science. So this is somewhat like ‘truth according to the law’ which is inde-
pendent of what actually happened.

Even when you are talking of the health of the system, the touchstone that
you are using is the learning of the child. You are not making the child respon-
sible, or the teacher. You might be looking at the accountability of the system,
but the real criterion is the child’s learning and his mind is not directly acces-
sible to us. Therefore we make certain procedures and assumptions that on
the basis of the interpretation of behaviour we make a picture of this other
human mind. You make large-scale standardised behaviour patterns and
interpretations of that and then you make these small pictures of children’s
minds. This is a constructed truth, in a sense. I am saying, like many others,
that your ways of looking at and interpreting behaviour to form the picture of
that other mind is flawed.

So if you really want to test the health of your system, find a better way of
doing it. I do not know what that better way could be. But I have my right to
critique available assessment methods because I am a teacher. I also deal with
the development of the mind. And the kind of interpretation which is being
done does not stand rigorous scrutiny.

Lastly, I don’t think that Pratham’s claim that anyone can teach reading in
15 days is independent of their testing methodology. They have a particular
definition of reading and that is why they are saying that you can teach it in 15
days, and the same definition is being used in testing. People accept this claim
because of the ‘respectability’ generated through this testing.

Jacob: I agree with you completely that educational testing has to be subjected to
the scrutiny of teachers. It’s not only Pratham that we need to question. We need to question what SCERT is doing.

Sharad Behar: I found a very large area of agreement with you. But you were not really talking about conceptual issues. You became polemical because of the large-scale assessment and particularly PISA and ASER looming large in your presentation. I have a few points to make on conceptual issues and I am quite sure you will respond to them very effectively.

Point one – this whole concept of truth. Truth is questionable. It’s a maya word. If you go to Indian philosophy, the whole world is illusory. So there are levels of truth. Education in itself is an artificial world. The curriculum is not made from the point of view of the real world. You are going to the world of knowledge, not to the world of life. So let us first understand the artificial nature of the educational enterprise or educational system within which you are locating the whole assessment exercise.

Assessment is required. All of us know the words and the connotations, the context and the need for change – from examination to evaluation to assessment, and on to benchmarking. It is trying to locate, in whatever journey you are taking, where you have arrived and what further has to be taken up. Therefore, whether it is large-scale or small-scale, there is no real assessment. In small scale, it is the string of beliefs that you talked about, of the person interpreting the data and so on. Some other interpreter will interpret it differently, and that has to be granted. Not granting that is a problem.

Next, I do not know why we went to PISA and ASER. Large-scale testing in this country has always been there. All the board examinations are large-scale. So also the Indian Administrative Service exams where all questions are essay type and very subjectively interpreted. So the whole issue about objectivity and subjectivity in assessment is highly problematic.

Next, why is education an artificial life created within the world of life? It has been created by society and there are societal demands on the system. That is why you have the board exams and marks. Marks were converted into grades, but now parents want to know the marks. In fact, these are the important conceptual issues. Can we make assessment something enjoyable? On interpretations, there will be subjectivity, yes, but can it be identified? From which string of beliefs does the interpretation come? Is it Marxist or progressive, or functionalist or structuralist?

The purpose of learning is questionable. JP Nayak called schools “artificial hothouses”. But then, there are others who question that too. So, in a way, I am coming back to saying that a lot of the critiques that you have made are
acceptable to me. But the framework in the entire presentation seemed to be rather problematic.

Rohit: If you look at the structure, first, I was asking whether real-life skills and knowledge could be tested. Secondly, if not, whether domain knowledge in the true sense – in the rich sense – can be tested. There seem to be problems with the methodological implications. Then I took the two most talked about assessments at this moment in India as examples. If you are saying this is artificial, then you must be having some interesting meaning behind it. But at this moment, it seems to me that, well, what is not artificial about human beings? The way we behave with each other, families, the houses we live in, our lifestyle, our eating style, and our whole business of knowledge creation is artificial. I am saying that the whole human life today is artificially created, and this requires more artificially created props. We have developed as a society in a certain direction. To sustain that you need artificially created systems, and the education system is one of them. If we don't like that direction, we have to do some really serious thinking.

Society has demands on the education system, and therefore the education system sometimes goes against its own internal logic. That is a serious problem. It would require us to examine the kind of society we want, the kind of demands from the society that the education system should take and what they should resist. This debate is part of a process that makes us push in a certain direction.

About the truth issue – if we want communicability between human beings, to understand each other and make common knowledge shared understanding, the concept of truth cannot be done away with. This might be hazy or flimsy or treacherous, but it is there wherever we want justifiable and communicable knowledge. If I take the position that every interpretation is on the basis of some earlier beliefs, and therefore every interpretation is justified, then I don't know whether we can carry on the dialogue or not. We carry on the dialogue because we assume that some interpretations might be more worthwhile than others.

But I agree with the rest of what you say – can we find ways where the assessment is not threatening, where the issue of objectivity does not take away from the richness, and can we accept multiple points of view and look for reasonability behind each of them?

Sreekanth Sreedharan: If there is no purpose to large-scale assessment, then any subsequent scrutiny of weakness in it is meaningless. I was part of a large-scale
assessment programme, the Quality Education Study with Educational Initiatives, and would like to examine two of the weaknesses Rohitji points out about large-scale assessments are: Can it look at real-life situations? And does it test rich knowledge?

The first point is rather unshakable since if we go for richer tools – role plays, observations – the cost of the initial study shoots up and it becomes difficult to fit all that into the scope of a large-scale assessment. There is always a trade-off between the richness of the tool and the scale. It is much better to train the teacher to do this.

Then the second point – does it test rich knowledge? You are defining rich knowledge as connected knowledge. There is a little more to it, but I am just using that broad definition and taking it further. In many areas of knowledge, there are two kinds of connected questions. One is predictable connected questions, which I can anticipate. The second kind is the unpredictable real life scenario, where your child said something not necessarily connected but that gave me an insight into the child’s mind, which I could have used if I were a teacher, or if I were physically present in front of the student. There is a problem with the latter variety when it comes to large-scale assessments. With predictable connected questions, can a large-scale assessment not do better – if there is a purpose – if it narrows its scope and tries to ask all the connected questions?

The second connected thing is that we now have technology available to be able to ask adaptive questions. So if we can build a network of connected questions, then depending on a child’s response to a particular question, we can always alter what the next question would be. And it is possible to deliver this using technology, where it is not a paper-pencil kind of thing but a computer of some kind. Don’t these make things a little better for large-scale assessment?

**Rohit:** Whether large-scale assessment has a purpose or not, once it is available it is used for certain purposes. You can see that with every single board. I am talking of those purposes for which it is used. Often, they are used with the agreement of the assessors. Therefore assessors ‘agree’ with those defined purposes. So they do impact our lives and the education system and we need to be worried about that.

On the second issue, I might have sounded dismissive but all I am trying to say is that we have to be humble and careful about this. I don’t know enough about technology and whether it can help or not, but it seems to me that what is needed is not computers but the interaction of human minds and sensibilities. But I might be biased. So if you have predictable questions, to an extent perhaps you can make it richer than it is. There is no zero or absolute richness, so we can certainly increase the richness – it is relative. Connectedness
of knowledge is also relative. Any kind of methodology – paper-pencil or computer – that helps us make it richer should be welcome.

**Ruchika Saharan:** All of us may have different paradigms or perceptions, but there are certain overlaps which could be used to generate something richer. We have maybe one goal, but different skills and paradigms are preventing us from coming to a collaborative state. That is one point.

Second, I don’t agree with large-scale assessments. I don’t think there is a huge benefit. But when we say that the teacher could be the best person to assess, from what I have heard students say, they are most afraid of the teacher. They prefer to sit for a standardised exam that somebody who doesn’t know them or their handwriting is going to evaluate. The teacher may have personal biases, while large-scale assessments are impersonal. So I don’t know what is best for the children.

**Rohit:** This is a good point. But it could be that when we are exploring ideas, there aren’t any barriers. Therefore this could also be because the child knows that she can get her way with a verbose answer without meaning if someone else is testing. But the teacher knows her well and understands what she is saying.
The Value and Practice of Authentic Assessment – Individualised Assessment for Learning

Rod Hemsell

Rod Hemsell is an educator and author who has worked extensively in education in the USA and India. He founded the GLOBE Charter School in Colorado Springs, Colorado, USA in 1995. Rod Hemsell also started the New Era Secondary School at Auroville and has been the principal of the school, where he implemented assessment practices based on the Continuous and Comprehensive Evaluation (CCE) framework from Central Board of Secondary Education (CBSE). Rod talks about the education reforms in the USA and India and presents an approach to developing authentic assessment based on CBSE’s CCE manual.
I have been working in alternative experimental schools for quite a number of years, and part of that focus has been on what we call authentic assessment in the US, which is the same thing as formative assessment here in India. That is what I am addressing, not assessment in general.

What is formative assessment? Historically, there are some interesting connections between what we are doing here with NCF (National Curriculum Framework) and CCE (Continuous and Comprehensive Evaluation) and what has been done in the US. My connection with Auroville and India goes back to the 1960s. I visited TISS (Tata Institute of Social Sciences) in the 1970s and got to know the rural development people Darshan Shankar and Bunker Roy when they were still students – as was I, a graduate student. Then when I returned to the US in 1983, coincidentally, a report on education was published, called A Nation at Risk. Ten years later, the Charter School Act was passed, and two years after that, I initiated a charter school.

So from 1995 until 2005, I was conducting educational programmes, largely research based, in association with the University of Colorado. I had a grant to create a K-12 curriculum and assessments. To do that, I worked with the University of Colorado and with Project Zero at the Harvard Graduate School of Education. At that time, the Project Zero programme was very active, very dynamic, and a large amount of work was done with schools all across the US. Subsequently, I was involved with another Harvard Graduate School of Education research project in Project Learning and Project Assessment, which went on for two years and involved a couple of hundred tools.

The impact of these reform movements in the US was quite significant throughout the 90s, during which time a tremendous amount of work was done. For example, in 1994, a book was published by National Geographic, called Geography and National Standards for Life. When we talk about standards in this context, we are not talking about standardisation but about content standards that were felt, by professionals in different disciplines, to be the things that students really should learn. That is the definition of standards.

I’d like to connect that scenario with another coincidence. When I returned to India in 2005, the NCF report was published. It followed the 1993 publication of Learning Without Burden. So both these reports were quite influential, within a fairly short time frame, in generating educational reform movements and strategies, methodologies and so on. I was happy to see that when I came back to India and immediately applied for affiliation to CBSE.

For the past five years, I have had a small – 9th to 12th Standard – high school,
called New Era Secondary School, with 50 students and about eight teachers, and have been working assiduously to apply the principles of NCF in a school which is typical of rural schools in many respects, except that the surrounding environment of Pondicherry and Auroville is somewhat cosmopolitan. Not the students, however, though they have the benefit of certain exposures.

The focus of the reforms that came out of A Nation at Risk, as articulated in that report, was diversity and equity: ‘We do not believe that a public commitment to excellence and educational reform must be made at the risk or at the expense of a strong public commitment to the equitable treatment of our diverse population. The twin goals of equity and high quality schooling have profound and practical meaning for our economy and society.’

At that point in America, diversity and equity were seen to be the most important deficits in public education. The second most important criterion of reform was differential learning – different children learn differently. The charter school movement represents both those fundamental goals of education reform, which are now very widespread. When I started my charter school in Colorado, mine was the 15th and now there are 105 or 110, each with 200-2000 students. This is a relatively small representation of the population, but they are within the public school system and funded by the government. So they are public schools yet alternative schools in the sense that we are free to design our own curricula and assessments and employ whom we choose.

This was followed by the NCLB (No Child Left Behind) Act which is practically the opposite in what it attempts to achieve. It is a highly standardised examination system meant to ensure certain levels of academic achievement across the US. But the states are responsible for implementing that and so there is a lot of discrepancy between what one state and another state actually achieves and measures, and how they report it.

Nonetheless, we see both of these elements here. We have CCE manual, a top-down authoritarian requirement that intends to achieve site based freedom and depth of understanding of students’ behaviours and reinforcement of the creativity and responsibility and independence of students, and then to report back to the authority an incomprehensible series of numbers. This is contradictory.

But there is, in the middle, an opening for real education reform. Now the question being raised by everyone is, how do we maximise that? How do we really achieve that shift? It is a paradigm shift, away from authoritarian control, meaningless examinations and text-bound learning to student centred, site based learning which is not text driven. I hope everybody understands the distinction.
In response to Learning Without Burden, the primary criteria addressed were the overbearing academic rigour imposed on children from an early age where covering the syllabus was an end in itself and unrelated to the social and philosophical aims of education. The NCF’s message says: ‘Both the teacher and the child have lost the sense of joy in being involved in an educational process. Teaching and learning have both become a chore and understanding is often confused with acquisition of facts. Such a confusion leads to the neglect of understanding as an aim of education.’

The NCF, I believe, is a good attempt to restore educational values. The assessment system – and assessment in general – accomplishes a couple of things, first and foremost by stating a series of criteria, like CCE has done. The CCE manual for teachers states criteria for assessment like:

- The student recognises and analyses a problem
- The student demonstrates divergent thinking

Both these statements are very radical in traditional education where the problem is stated, the solution is stated and the student is expected to reproduce both of them. When he does that accurately, a convergence takes place between his learning and the teacher’s teaching.

It also states this goal or criteria: ‘The student actively listens and pays attention to others’. That means peers – not authoritative figures but others who have an opinion. He incorporates the opinions of others in his own understanding of an issue, and sees and appreciates others’ point of view. Traditionally, you are not supposed to have your own point of view – you are supposed to uphold the conventional standards of knowledge and behaviour, and then you get good marks. So how do we assess these unconventional criteria?

Another statement is to do with emotional skills: ‘The student seeks help from teachers and classmates in stressful situations’. The student expresses feelings and reactions frankly in the class. There has to be time and space for that seeing and reflection and expression. There has to be an atmosphere of intimacy and trust so that the student can actually seek support and not always be intimidated and suppressed by the teacher, the system, the structure and so on. I believe that when you state those criteria in an assessment format, you are actually stating a set of values. You are saying that you value the students’ ability to recognise problems, to listen to others, to express their feelings, and we therefore need to support and encourage and model for the students those skills.
Going back to the more fundamental principle of NCF, it says that in CCE, comprehensive means to cover both the academic and the non-academic development of students. It doesn’t say to cover any text. This is a major shift. In the last five years, I have taught almost every course in the 9th to 12th syllabus, so I am very familiar with it, and I must say that it is good.

I was involved for ten years in developing a curriculum for K-through-12 schools, which I wrote with the help of experts. When I started looking more deeply into CCE manual, I really began to appreciate the work that has been done. One of the good things is that it gives plenty of room for working outside its parameters. It actually encourages going beyond the text – it suggests activities outside it. If a teacher is a little sensitive to what that means, she will know the content of the text and then put it aside and do the activities, during which she could assess those criteria I just read.

The CCE manual also says that ‘since abilities, attitudes and aptitudes can manifest themselves in forms other than the written word’ – referring to scripts and examinations – ‘the term comprehensive applies to a variety of tools and techniques and aims at assessing a learner’s development in areas other than those areas that can be assessed through written script’. And then it does an interesting thing. (Benjamin) Bloom’s taxonomy of levels of understanding – knowledge, understanding, applying, analysing, evaluating and creating – gets positive in reverse and a meaningful reincorporation in the learning process because in an inquiry based learning system, which this is, assessment is formative, but the pedagogy that is being proposed is inquiry based.

In this kind of a system, there are facts, which are referred to here as knowledge – the factual content – and below that there is understanding or comprehension. That is the second level. Then one can inquire more deeply of the student – can you explain it, can you describe it, can you select a variety of examples and apply them in different contexts? So almost immediately, in the inquiry based teaching and learning paradigm, you move away from the facts and basic comprehension into thinking skills – critical thinking and, ultimately, creative use of ideas.

A couple of weeks ago, I arranged a debate between a couple of sets of 11th Standard students and a couple of sets of 12th Standard students on ‘Race, Class and Caste Discrimination’. I took that unit from the 10th Standard syllabus. It so happened that in Dharmapuri, in November, there was the burning of 268 dalit houses by the Vaishya caste and others because one of their daughters had married a dalit boy and the father committed suicide.
because he was ashamed. All the so-called 'caste Hindus' took revenge against hundreds of dalit families.

We read about things like that in the paper fairly frequently, just like we read about student abuse in schools fairly frequently. Just last week, Krishna Kumar wrote an article about a student who broke his backbone and died because he was hit at school. Seeing a child being beaten and the idea of holding the stick represents a paradigm that still exists, just like the caste paradigm, in a very pervasive and malignant form. So quite apart from education reform, there is this value system that we are looking at. And here, the NCF represents the shift or conversion on a social level.

When you come across an issue like that in the textbook, with a corresponding issue in the newspaper, and then you begin to look at the facts, define the terms and differences between race, caste and class, look at examples in other countries, compare behaviour models and then start to prepare a debate about what really are the similarities and differences between race, caste and class discrimination, you are instigating a thinking process in students that is relevant.

So one of the things I have emphasised in my paper called 'NCF and Integral Education', is the importance of relevance in the learning process. It makes learning more meaningful to engage students in that kind of a dialogue. They also are forced to look behind assumptions and veils that are difficult to penetrate. They don't think about those things, and assume that the status quo is reality. They also don't know much about discrimination and practices in other countries, that this is a global issue. The activity says that indirectly.

Through that kind of a process students have the opportunity to form their understanding, communication skills, ability to compare and contrast and criticise, listen to others, understand their own emotional reactions to things, and to form any adjustments that might help them to listen more closely. So the academic critical skills, social skills and emotional skills are all being activated. This comprehensively represents a paradigm shift in the learning-teaching system. Whatever criticisms we might have of the top-down nature of it and the reduction to numbers that is currently being used in order to force teachers to look at these things and record numbers, or whatever else we may say – positively or negatively – about CCE manual as it is currently manifested, these are fundamentally important, valid, meaningful reforms.

In addition to the New Era Secondary School, I am involved with another project in Auroville, called the University of Human Unity. This is a kind of postgraduate research project, focusing mainly on Philosophy, Psychology
and Linguistics at this point. There are a variety of courses, papers and seminars in audio and text form. One of them is very relevant to this discussion. It is called ‘The Philosophy of Evolution’, and it covers the work of people like Henri Bergson, Konrad Lorenz, Sri Aurobindo, Heidegger and Alfred North Whitehead. They are philosophers of a school known as Intuitionism, and it is very important for us to recognise this as something quite contrary to the picture and principles, as Rohit Dhankar mentioned earlier when he said that we don’t know the minds of others – we just construct our own impressions and call them that, more or less what we think is going on in that mind.

This is the product of a certain branch of philosophy and an epistemological understanding of knowledge that developed pervasively in the 20th century, based upon scepticism in the 17th and 18th century. Equally pervasive is something known as European Critical Philosophy.

It is significant that up to 1950, this kind of thinking was quite significant and powerful, and people then were influenced by Henri Bergson, Whitehead and also Arnold Toynbee. The history of civilisation, the whole anthropological movement and humanistic psychology were all very strongly influenced by the thought of Henri Bergson. Sri Aurobindo was quite familiar with that thinking in the first decade of the 20th century and went on to develop his own philosophy, which isn’t by and large Vedantic. Although he integrated Vedantic philosophy, he also integrated the philosophy of evolution and intuitionism, and ultimately, Platonic and Aristotelian thinking.

Bergson made a fundamental distinction and, coming from a completely different point of view, Heidegger made exactly the same distinction. They decided that there was enough hair splitting and we really need to be concerned with knowing ‘what is’. A human being has the faculty of not only knowing his thoughts and splitting them up, but of knowing actually what is. That, in fact, is a much richer pursuit than discussing what we can say about what is. Logic is largely the pursuit of analysing what we can say about what is.

But when engaged in that, we are concentrating. Then the saying and the analysis of what we are saying becomes the object, not the thing about which something is said. If you follow that distinction, we can be so preoccupied with our analysis of what we know, understand and comprehend, that we forget entirely about the experiential field that was the source of that intuition.

So, in cognitive theory, to activate, affirm and recognise a student’s ability to see, feel and speak about things, and do things from the student’s own interest and motivation – as opposed to those we have decided are important
on the basis of our analysis and imposed upon the student – comes from the
thinking that Bergson and the deconstructionists follow today.

Cognition means that we have a direct perception and intuition of things. We
reason about those things and act on the basis of that. Usually, what we react
upon reflects the degree to which we have understood the things themselves.
Actually, we understand a lot about everything. We don’t understand every-
thing that we understand because of the way our minds work. It is because of
the way things are, themselves, that we understand them like that.

In fact, logic, as Bergson treats it, is a product largely of our spatial orientation
which enables us to measure things in terms of spatial relations. Logic itself is
based on spatial relations. And the ability to perceive and understand spatial
relations is an evolutionary product. It is natural behaviour.

But Bergson pointed out that there is another function of the human mind,
called intuition, which isn’t concerned about relating things in space and
measuring them. It is involved in time, and it is now and it is us. What we are
doing now and at every moment is an enduring process of becoming what-
ever we are – that never stops. We can take a picture of it and measure the
relationship between the aspects of that picture and some previous picture
that we took – a frame of understanding – and then what we have is a frame,
as Heidegger says.

This is very useful in society to the adaptation and success of the human
species. So we need to see that kind of spatial thinking as an evolutionary
product. When we point out the difference between intuitive and literal
thinking, we are not making a value judgement. We are simply describing two
different functions of the human mind. One of them has served us better in
organising the uses of resources for our benefit, and creating structures and
technologies.

Now we have come to a point where we have overpopulated the planet. As
you know, up until 1850 or so, there were never more than a billion human
beings on earth. Within a short period of 150 years, we have got to being 7
billion human beings on earth. So that means we have been so adapted that
we have filled every niche on the planet. We haven’t had to speciate in order
to survive differently. We are the species that is continuing to adapt through a
process that is apparently not like the process of evolution that has preceded
us. We are not evolving structurally, but mentally. That enables us to adapt to
every possible niche there is, and to utilise all the resources available to our
species for the sake of our survival.

Unfortunately, resources are limited and we are beginning to face social and
Reading and Writing

Standard 1: Students read, listen to, and understand a variety of materials. Students will know and be able to:
- Understand the settings, events, and characters.
- Summarize major ideas across texts on a given topic.
- Understand how authors build suspense in mysteries.
- Understand how major characters are portrayed.
- Listen to traditional and contemporary fiction.
- Read and respond to mysteries, historical fiction, biographies.
- Identify the characteristics of nonfiction texts.
- Understand author's craft.
- Identify the characteristics of textbook writing, mystery stories, biographies, realistic fiction, and fantasy.

Standard 2: Students write and speak for a variety of purposes and diverse audiences. Students will know and be able to:
- Write a fantasy story, report, folktale, personal narrative, mystery, biographical sketch, business letter, and character description.
- Apply steps of the writing process and elements of fiction.
- Participate in peer and self-editing.
- Revise organization and word choice.

Standard 3: Students write using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling and speak using conventional grammar and usage. Students will know and be able to:
- Capitalize names of people, places, dates, cities, states, countries, and titles.
- Punctuate end of sentences, commas in series, common abbreviations, and familiar contractions and possessives.
- Recognize subject/verb agreement.
- Use syllabication for recognizing unfamiliar words.
- Use suffixes and prefixes.
- Recognize word referents.

Standard 4: Students apply higher-level thinking skills to their reading, writing, speaking, listening, and viewing. Students will know and be able to:
- Make inferences about setting, events, and characters.
- Identify cause-effect, problems and solutions.
- Identify theme.

Standard 5: Students locate, select, and use information from a variety of media, reference, and technological sources. Students will know and be able to:
- Use an encyclopedia, card catalogue, index, and parts of a book, and electronic catalog/references.
- Take tests.
- Read street maps, bar graphs, and line graphs.
- Summarize information graphically.
- Use special references and electronic tools such as encyclopedias (including electronic encyclopedias, magazines, CD ROM stories, word processing, electronic publishing, electronic data bases, and graphics programs).
ecological issues that may threaten our survival. Under the stress of those conditions, we naturally start looking for solutions outside the pattern that has served so well for so long. Because even though we recognise possibilities in that pattern, we have a hard time extracting ourselves from the structures and habits that have been developed for thousands of years.

So we recognise the necessity of another way of relating to other human beings and to the environment, which is more respectful, creative and divergent. We want students to become human beings with independence, creativity, critical thinking skills and sensitivity to others. We hope – although we can’t assess it at this point – that the behaviour of another generation will be able to step out of the patterns and create new ones that are more sustainable, intuitively foresightful and energetically effective, and less burdened by already created structures and forms, rules and regulations and authorities – less constrained.

Evolution always takes place within constraints and we are not going to become something different right away. But in evolutionary biology, we acknowledge something called the flexibility of the phenotype. This means that the behaviours that any species manifests at this moment do not constitute the whole range of behaviours it is capable of. So in laboratory situations, tests are done to try to figure out what really is the range of flexibility of the existing phenotype. We are in a laboratory here, in this organisation that is looking at education, this society, this globe, that small community called Auroville.

To get back to something I was saying before, during that period of the debate on race, caste and class, through meetings where there was reading, discussing, analysing, comparing, debating, there were many opportunities to observe the learning process. What does it mean to assess that? Nothing more than give feedback and acknowledge that the student is trying to do something but not adequately yet, that the student takes the issue a little bit further the next time and does it better, and you give feedback that guides the student’s movement towards filling up whatever deficit is there. At the end, if the students have engaged enough with it, you will see that some have reached a higher level of sophistication with regard to the skills and content than others. You can give feedback on the basis of strengths and weaknesses in an anecdotal way, or even turn it into numbers.

Let us quickly look at a reading standard. This is totally a matter of comprehension – not of decoding.
Students write and speak for a variety of purposes and diverse audiences. Students will know and be able to

- Write a fantasy story, report, folk tale, personal narrative, mystery, biographical sketch, business letter and character description
- Apply steps of the writing process and elements of fiction – like character setting and plot
- Participate in peer and self editing
- Revise organisation and word choice – show that you can self-reflect and change and so on.

Standard 3 is obviously about conventions – grammar and sentence structure and so on. In a comprehensive reading standard, many things are covered, some of which are procedural and some are process oriented. In Standard 4, students apply higher level thinking skills to their reading, writing, speaking, listening and viewing. Then we move into Bloom’s taxonomy. So the student is asked to identify the theme, identify cause-effect problems and make inferences about settings, events and characters. You could also ask the student to transfer that analysis to another similar text and compare the two. Then you move into literary criticism at appropriate levels. These standards are meant to cover the range of performances that students are capable of but need to do in order to acquire the skills to execute those performances well.

I want to show you something specifically about CCE. We know that CBSE is asking us to look at a holistic rubric like this and make observations of a student. If a teacher observes the student in the classroom five times and notices that that student is seeing and analysing a problem two times, then the student gets a score of 2 on that indicator. The problem with this is that to demonstrate divergent thinking, for example, the demonstration can be widely diverse on a vertical scale. The student can demonstrate divergent thinking with a higher level of sophistication and creativity, or by just saying something off the wall and everything in between.

So on what basis is a teacher able to give a mark with respect to that indicator? If the teacher likes the student, and if the student has never recognised a problem himself but solves all the problems that the teacher recognises, she thinks that he recognises and solves the problems. But for a student to actually recognise a problem not stated by the teacher is a much higher level skill. It is only possible if time is given, and if certain kinds of suggestions and questions and redirects and all the constructivist types of heuristic behaviours are presented by the teacher. That is the point on which the mark needs to be given.
I have shown how that can be converted into an analytical rubric by just adding some definition to each of the numbers. So out-of-the-box thinking can appear during class discussions never, or during class discussions sometimes, or in discussions and writings often, or most of the time in discussions, debates and writings, or always in discussions, debates and writings. If we put on these descriptors a little bit more rigorous qualifications, then that number 5 is going to mean something much more important and cogent. And then we can create and design units that incorporate a range of criteria.

I will show you one more example that comes from Heidi Goodrich of Project Zero – a persuasive essay rubric. Here are four levels of performance. But in the assessment of this student’s essay, we have many criteria – the voice, point of view, organisation, reasoning... Speaking, writing and argumentation are all in one rubric. Number 2 shows what we would usually call facts and content. Is it all there? Does it really reflect understanding of an ecosystem? Is the paper well organised? Is there a good group participation and presentation in the project? What is the group involvement of each member? Many different aspects of formative development can be assessed with a rubric like this and then all that information can be transferred, if necessary, to a quantitative grid. But when you do that, you are transferring some real events – you are not just providing a subjective evaluation based on nothing but an abstract indicator.

So I would say that here is a good indication of where the CCE isn’t actually so subjective. It is much more objective in proportion to the specificity that you give to the levels of performance you are assessing. If you assess a student with this rubric several times, it is authentic evaluation of the student’s work, and every teacher would reach more or less the same conclusion. We have done many, many experiments based on this idea. And it is true – a high level of objectivity can be achieved in assessment of very subjective learning behaviours because all of them are expressed in some form. You can see that the learning process is actually being reflected in the performance that is being assessed.

So I would submit that if work is done with teachers on developing meaningful content standards and rubrics based on the relevant level of the student’s development in that teacher’s class in that village and that region, then the principles put forward by NCF can actually be implemented in a meaningful way. But because all those pieces are not in place, teachers are just marking forms and submitting them, and the students are getting bad grades from CBSE. It serves only one purpose — it shifts the focus of the teacher from the text to the student. But to really maximise the potential of the principles that are being suggested requires a few more pieces to be put in place.
**Rohit Dhankar:** I do believe that when a teacher is doing many kinds of things, trying to understand what she is teaching and breaking it into different capabilities as well as levels, it is rarely possible in the classroom where she herself is doing the formative assessment. I also feel that, may not be everything – it would take more time to look closely and see whether they derive from each point clearly, etc. – but many of the things within the NCF framework could find a place in a classroom. I did not see what you meant about knowledge etc. because I didn’t understand your lecture very clearly. But I don’t think the old Bloom’s taxonomy distinctions are sustainable in the sense that you can know facts without understanding. From understanding you go to application, and from there to something else. I think what they have done on the basis of that around 1998 is a revised taxonomy which looks at knowledge in a more integrative manner and the cognitive process in a certain manner, and could be utilised better here.

**Rod:** How much discussion went into that design of the NCF – the NCERT syllabus materials? I quoted a statement from the CCE manual. And I have done a lot of teacher training around constructivist methodologies and the inquiry method. How much attention was paid to the design of the activity-based syllabus?

**Rohit:** The NCF had three different processes. One was taking separate subject areas as well as certain issues and writing focus group papers on that and collecting whatever thinking was available on that issue in India. Another was developing a framework. The next level was the syllabus. So the syllabus and NCF review were going on simultaneously. CCE was of course discussed, but the manual was not discussed in the NCF at all. I do not know which manual you are quoting here. But I did carefully go through one manual by CBSE that someone presented, and that didn’t seem to be doing justice to the ideas in NCF.
**Rod:** The first manual, which came out in 2007, was very poor. This one came out in 2009 and it is better in many respects. But it still has obvious weaknesses. I can appreciate that the process is new and young and imperfect and all of that.

**Reshmi Dastidar:** I am a teacher and I have been working on curriculum development for some time. We have been using analytical rubrics for almost eight years – we started our work in 2005, pre-NCF. There is one practical problem with this, though we have, to a certain extent, cracked this issue of what analytical rubrics are and how they can be used. There is the curriculum of various subjects, and the learning outcomes. So first these outcomes have to be converted to performances of understanding the tasks. Then the tasks are there and so we have performances of understanding. Then we develop a rubric on the performances of understanding where we have descriptors for each level.

One thing which benefited us a lot was sharing rubrics and learning outcomes upfront, and setting the students up for success. So they know what they have to do to be at that level. But a practical problem is that all of this involves a lot of work on the part of the teachers. No one else can do it. So what happens eventually – and we have been struggling with this – in senior classes especially, content coverage suffers because you have performances of understanding, rubrics, models of good work which are shared, rubrics are shared, learning outcomes are explained to students... Because it is a formative assessment, once the teacher gives a feedback, the student should also ideally be allowed to do the task again and show improvement based on the teacher's feedback. So with all this we end up compromising on content coverage. In middle school we don’t have such constraints, so we focus on competencies. But in senior school, there is a curriculum to be covered. I was looking for a solution to that.

**Rod:** Working with students on developing the rubric is absolutely the right thing to do. That is the meaning of assessment for learning – it is not assessment for measuring and ranking. So the time that you spend doing that is teaching time. Giving feedback to the students on those assessments with respect to the criteria in the rubrics is teaching-learning time. It enables a deeper level of comprehension, self-reflection and learning than if you were just trying to cover content. One of the good things about CCE is that it recommends that you spend six class periods on this or eight class periods on that...

**Reshmi:** If we follow this pedagogy, it doesn’t suffice. The question papers come from outside, from Grade 9 onwards.
Rod: You don’t have to use those. You can make your own. There is probably more flexibility in that system than you may realise. That depends upon your administration and what kinds of directives they are given. Actually, with respect to CBSE, there is a lot of flexibility that big public schools wouldn’t feel at liberty to exercise, but those of us who are working in smaller, more innovative environments can. So I think that sacrificing content is not really a big problem. I would rather spend two weeks discussing race, class and caste than 12 other topics in the textbook. The students are learning something here, their skills are developing and that’s important. That is the purpose of the whole thing.

Assessment for learning means that there is no difference between the two things. Assessment is learning. And assessing is teaching. The first thing that Heidi Goodrich said to our teachers was, “You are going to tell me that all of this takes too much time,” Portfolio development, collecting student samples, writing reflection sheets on the portfolio, selecting, reflecting – too time consuming. But she says what you have to realise is that the old conception of assessment being something that teachers do separate from the teaching process is out of the window here. This whole business of developing rubrics and using rubrics to evaluate and collecting samples of student work and writing reflections is what is known as formative assessment or authentic assessment. It is now a teaching and learning tool, not removed from that whole process. So yes, it is time consuming. But that’s the business.

Sharad Behar: Your presentation was in three parts. The first part I understood, where you were primarily saying that the educational reform movement, whether in the US or India, had origins in certain philosophical developments. However, the second point was about the evolution of human beings, where the little I understood was that the new adaptation is not physical adaptation – it is much more mental. That was interesting because that was getting related to education but it was not clear in what way.

I will raise three questions. You suggested intuition – from the analytical approach to intuitive approach. You were basically saying that the analytical mind and analytical method is outdated. In our evolution, now human beings are primarily becoming intuitive and that is the way of making adjustments in the new situation, rather than genetic and structural changes. If that is so, I could not understand how you again went back to everything – like NCF – within the analytical framework. The second was about the mind, some kind of an independent identity of the mind which could also be seen by others, if I understood you correctly. The third point was about subjectivity and objectivity. You gave
examples to show that there is no longer subjectivity. It is objective. Maybe the points are related, maybe they are not.

Rod: What I said was that human behaviour has been dominated significantly by the rational mind for the past few thousand years although the intuitive mind has always been present there. And the urge right now is for there to be a more concrete emergence of that intuitive mind. It doesn’t mean that the other one is going to go away. In evolutionary theory, there is a concept of homeostasis, which means that the old structure never really goes away. It just gets modified.

With regard to subjectivity and objectivity, one of the fundamental observations of the phenomenological movement in philosophy is that nothing is known either subjectively or objectively. Knowing is a process of subjective and objective assessment. We know the things that are in front of us and we describe them objectively. But knowing that they are in front of us is a matter of perception and information processing. You cannot really separate the information processing with the objective description of the thing which is actually there and that everyone can see and describe in more or less exactly the same way because it is what is there and we all know it subjectively but are agreeing about it objectively.

I’ve heard the comment made, “Oh well, it is going to be subjective, it has got to be subjective,” as if it was some kind of evaluation. All knowing is subjective and all knowing is objective. Ontologists and the phenomenologists have made it a primary feature of their philosophy to define both sides of the equation and to virtually eliminate the distinction. So that is what we have to do. I am not saying that assessments are not subjective. And I am not saying that they are exclusively objective and that now nothing is subjective and now everything is objective.

The philosophy of mind – by which we mean the critical philosophy of Kant and Hegel and neo-Hegelians – is based upon the idea that the content of the mind is the object of thinking.

Sindhu Mathai: I agree on the philosophy from what I have read and what you have said. But I didn’t understand the distinction between spatial and temporal, logic and intuition. I always saw both together. Secondly, the analogy with natural selection – it is common to see such analogies being made. At the same time, you know that there is a difference. So is it sensible to make such analogies when you know that you are, in a certain sense, extending that theory from biological systems to various other things?
Rod: We can observe biological phenomena – animal behaviour – and our own behaviour and come to the conclusion that adaptive behaviour and cognitive behaviour and creative change – adaptations – take place in all species. The human being’s mental behaviour is not fundamentally different from an animal’s. It is just a little more abstract and language related, more representational. But the behaviour that comes out of this process is not very much different from animal behaviour. So if, in fact, the process of evolution is driven by variation and adaptation and selection, then that must necessarily be going on in human behaviour now. Human beings necessarily must adapt to changes in the environment. And our way of doing that is mental, rational, constructive, analytical and volitional. We tend to think all these things are cognitive. But cognitive behaviour goes all the way down to the paramecium.

On a large global scale – I don’t think this is an Indian thing or American thing or whatever – we can notice many strong tendencies towards variations and adaptations that are perceived to be necessary under the conditions that exist now but did not exist 50 or 100 years ago. It is not just analogical. It is actually descriptive. So yes, I think it is fair to use the evolutionary paradigm to understand things that are happening on the higher level of abstract behaviour.
We have an examination system in this country, not an educational system. Now an educational system is slowly coming out of the crevices and asserting itself. We are in that transition.

All of us, as students in high school, and some of us who studied English, have written character sketches based on stories and novels. What happens there? We take what a character or person does – or says, if it is drama. Shakespearean drama is only what a person says. They don’t do things, they talk about things. From that we make an inference about them – about a certain enduring personal quality. So we have the character of Lady Macbeth, of Hamlet and Lothario and so on.

This is very important. We are looking at performance and making an inference about a personal quality which causes that performance or underlies it. This is exactly what we are doing in testing. We’ve got to be very, very clear about this, because the fact that there is something called behaviourism – a big, bad evil – and we want to get it out of the way, is a wonderful thought. But if you want to use the word ‘assessment’, you’ve got to remember that this is what we are doing. The test is basically a means of eliciting a performance.

– Jacob Tharu

What is the role of assessment in school education? How do we make it a genuine reflection of the child’s learning? What are meaningful and holistic purposes of assessment and how do we do it such that the purposes are achieved? The three days at the 13th Wipro Partners’ Forum were an attempt to explore various aspects of these questions. This publication is an attempt to share these conversations with a larger audience.