

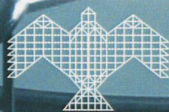
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# TOWARDS A GROUND-UP FRAMEWORK FOR TEACHERS' ASSESSMENT AND PROFESSIONAL DEVELOPMENT

A STUDY CONDUCTED FOR OXFORD UNIVERSITY PRESS, INDIA

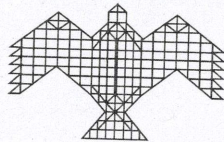


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By  
Shivali Tukdeo & Anitha Kurup

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Image courtesy: teachers who participated in the workshop at NIAS

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# EXECUTIVE SUMMARY

Existing models of assessment of teaching often assess teachers' content and pedagogical knowledge by assuming certain generalisable indicators. Teachers' professional development and teaching assessment are also often delinked. In this report we pay attention to the universal as well as local parameters of teaching and combine teacher professional development and assessment. Our framework views teaching assessment as not entirely an externalised, stand-

alone phenomenon; but the one that is connected to understanding and improving teaching as a creative, reflective and complex enterprise. Our framework includes two phases: first phase involves an educational and professional development component wherein teachers are provided useful content through handouts, activities and journaling practices. Following the first phase, the assessment model includes a set of matrices with quantitative and qualitative values assigned.

## 2. INTRODUCTION

To state the importance of teachers in our education system would be stating the obvious. During the course of last seven decades there have been numerous reports drawing attention to the need to focus on teachers and teachers' work. As part of our mandate, the National Institute of Advanced Studies (NIAS), Bangalore has been working for decades with schools, teachers, students, parents, local and national departments and communities at large. While our primary focus has been research, the education programme works closely with advocacy and policy groups [<http://nias.res.in/programme/education>]. Our work has led us to participate in several consultations, classroom observations and dialogues with teachers and these form major reasons for our interest in collaborative work on assessment and professional development of teachers.

Accountability and high professional standards of teachers have become rallying points for reforms in teacher education and professional development. In the Indian context, there has been

a phenomenal growth in agencies and institutional setups focusing on assessment models for teachers. In most cases, development of such models is connected to building up of teacher training courses or other allied interventions. For the purposes of present research focusing on developing assessment framework for teachers, the following considerations have been important:

- Our work with teachers indicate that there is considerable 'assessment and training fatigue', especially for teachers working in government schools in India. Therefore, development of framework on teacher assessment, at this juncture, would need to be integrative in nature and would need to connect with teachers in terms of their career vision, autonomy and already existing teaching practices.
- Teaching practices are context-bound, context-sensitive and often reflect the enormous diversity of school types that exist in India.

A framework for assessment/professional development therefore must be sensitive to this reality. The framework also needs to be open and generalisable enough to capture certain common elements of teaching experience, leaving enough room for context-based variations.

Upon examining several models as well as scholarly works on teacher professional development, motivations and practices, we believe it is more fruitful to frame teachers' work in terms of self-assessment, professional development, peer feedback and teacher-empowerment rather than performance assessment.

### 3. RESEARCH FOCUS AND APPROACH

As part of the present research engagement with Oxford University Press (OUP), we spent three months in 2017 researching teacher evaluation/assessment models. While the main focus was to think of the tangible ways in which teachers' work can be understood, we did not want to be part of a process of certification. Our interests are academic and they emerge from understanding the linkages between teachers' work and other larger research questions related to education policy, cultural politics of schooling and complexities involved in teaching and learning.

This report attempts to situate teacher evaluation as part of the larger process of professional development and teaching enhancement. To start we put together a review of scholarly literature focusing on teacher education in India and various assessment frameworks and models. A consultative meeting of

individuals working in the domain of teacher education and professional development was organised at NIAS where we discussed the thrust of our project and received feedback and direction. Our focus group interactions with teachers working in schools of Bangalore were another avenue for feedback. Among several models of "how to" evaluate teacher performance, we have reviewed those that have helped us arrive at our framework. We will, however, need longitudinal field work in order to translate our framework into operable tools.

Our reviews focus on the highlights of each of the models/frameworks we consider without going into greater details or reproducing the tools that make these models. There are a number of research responses to each of the models provided in this report and our document refers to those in the footnotes.



## 4. INSTITUTIONAL LANDSCAPE OF TEACHER EDUCATION IN INDIA

Evolved over a century, teacher education in India was shaped and administered by a range of institutions and agencies paying attention to both, preservice and in-service teacher development. The apex body involved in education policy in broad terms is the Ministry of Human Resources and Development (MHRD). Additionally, the following agencies also engage with different aspects of teacher education:

- National Council for Teacher Education (NCTE)
- National Council of Educational Research and Training (NCERT)
- Department of Elementary Education and Literacy
- Department of School Education and Literacy
- University Grants Commission (UGC)
- National University of Educational Planning and Administration (NUEPA)

The National Council for Teacher Education (NCTE), was constituted

at first in 1973 as an advisory body to the Central and state governments on matters of teacher education. Following the National Policy on Education (NPE) in 1986 the functions and roles of NCTE were reformulated with a statutory position and with a vision of a new system of teacher education. Subsequently, Under the National Council for Teacher Education Act, 1993, the NCTE was revised as a statutory body with a broad mandate to oversee planning, coordination and development of teacher education in the country. NCTE lays out norms and standards and is associated with all the levels of teacher education, preparing teachers for primary, pre-primary, secondary and higher secondary stages in schools along with non-formal, part-time, correspondence and adult education settings. Specifically, the council performs the following functions:

- a. undertake surveys and studies relating to various aspects of teacher education and publish the result thereof;
- b. make recommendations to the Central and State Government,

- Universities, University Grants Commission and recognised institutions in the matter of preparation of suitable plans and programmes in the field of teacher education;
- c. co-ordinate and monitor teacher education and its development in the country;
  - d. lay down guidelines in respect of minimum qualifications for a person to be employed as a teacher in schools or in recognised institutions;
  - e. lay down norms for any specified category of courses or trainings in teacher education, including the minimum eligibility criteria for admission thereof, and the method of selection of candidates, duration of the course, course contents and mode of curriculum;
  - f. lay down guidelines for compliance by recognised institutions, for starting new courses or training, and for providing physical and instructional facilities, staffing pattern and staff qualification;
  - g. lay down standards in respect of examinations leading to teacher education qualifications, criteria for admission to such examinations and schemes of courses or training;
  - h. lay down guidelines regarding tuition fees and other fees chargeable by recognised institutions;
  - i. promote and conduct innovation and research in various areas of teacher education and disseminate the results thereof;
  - j. examine and review periodically the implementation of the norms, guidelines and standards laid down by the Council, and to suitably advise the recognised institution;
  - k. evolve suitable performance appraisal system, norms and mechanism for enforcing accountability on recognised institutions;
  - l. formulate schemes for various levels of teacher education and identify recognised institutions and set up new institutions for teacher development programmes;
  - m. take all necessary steps to prevent commercialisation of teacher education; and
  - n. perform such other functions as may be entrusted to it by the Central Government.

While NCTE is an overarching body, a diverse set of actors are part of the large-scale teacher education landscape in different states in the country. In

most states, the department of education is the coordinating body, while some states have established an independent directorate of Teacher Education. Similarly, training programmes for pre-school and elementary school teachers are handled by the department of school education in many states and the degree courses are handled by the department of higher education.

In addition to the Ministry of Human Resources and Development (MHRD), the Ministry of Women and Child Development (MWCD) oversees the massive network of Anganwadis in the country and trains the staff therein. For pre-service training, the government and government-aided teacher education institutions are financially supported by the respective State Governments. Further, over 650 institutions including the District Institutions of Education and Training (DIETs), Colleges of Teacher Education (CTEs) and the Institutes for Advanced Learning in Education (IASEs) are supported as part of the centrally sponsored scheme on teacher education.

In-service teacher education in the country is largely handled by the network of government run teacher training institutions (TTIs). At the National Level,

the National Council of Educational Research and Training (NCERT), along with its Five Regional Institutes of Education (REIs) prepares a host of modules for various teacher training courses and also undertakes specific programmes for training of teachers and teacher educators. Institutional support is also provided by the National University on Educational Planning and Administration (NUEPA). Both NCERT and NUEPA are national level autonomous bodies.

At the state level, the State Council of Educational Research and Training (SCERTs) prepares modules for teacher training and conducts specialized courses for teacher educators and school teachers. The Colleges of Teacher Education (CTEs) and Institutes for Advanced Studies in Education (IASEs) provide in-service training to secondary and senior secondary school teachers and teacher educators. At the district level, in-service training is provided by the District Institutes of Education and Training (DIETs). The Block Resource Centers (BRCs) and Cluster Resource Centers (CRCs) form the lowest rung of institutions in the vertical hierarchy for providing in-service training to school teachers. Apart from these, in-service training

is also imparted with active role of the civil society, Non-Governmental Organisations (NGOs), publishing enterprises and other establishments.

Financial support for in-service teacher training is largely provided by the Central Government under the Sarva Shiksha Abhiyan (SSA), which is the main vehicle for implementation of the Right to Education (RTE). Under SSA, 20 days in-service training is provided to school teachers, 60 days refresher course for untrained teachers and 30 days orientation for freshly trained recruits. Central assistance for in-service training is also provided to District Institutes of Education

and Training (DIETs), Colleges of Teacher Education (CTEs) and Institutes of Advanced Studies in Education (IASEs) under the Centrally Sponsored Scheme on Teacher Education. State Governments also financially support in-service programmes. Several NGOs, including multi-lateral organizations, support various interventions, including in-service training activities.

Despite government effort and RTE coming into force in 2009, the report by the Working Group on Teacher Education for the 12<sup>th</sup> 5-year plan has found that there remain a large number of teachers who are working in schools but are still untrained.

# 5. TEACHER EDUCATION CURRICULUM

According to the revised Regulations and Norms and Standards on November 28, 2014 of NCTE, the following 15 courses can be accessed by student-teachers in India (NCTE, 2017):

1. Diploma in early childhood education programme leading to Diploma in Preschool Education (DPSE)
2. Elementary teacher education programme leading to Diploma in Elementary Education (D.El.Ed.)
3. Bachelor of elementary teacher education programme leading to Bachelor of Elementary Education (B.El.Ed.) degree.
4. Bachelor of education programme leading to Bachelor of Education (B.Ed.) degree
5. Master of education programme leading to Master of Education (M.Ed.) degree
6. Diploma in physical education programme leading to Diploma in Physical Education (D.P.Ed.)
7. Bachelor of physical education programme leading to Bachelor of Physical Education (B.P.Ed.) degree
8. Master of physical education programme leading to Master of Physical Education (M.P.Ed.) degree
9. Diploma in elementary education programme through Open and Distance Learning System leading to Diploma in Elementary Education (D.El.Ed.)
10. Bachelor of education programme through Open and Distance Learning System leading to Bachelor of Education (B.Ed.) degree
11. Diploma in arts education (Visual Arts) programme leading to Diploma in Arts Education (Visual Arts)
12. Diploma in arts education (Performing Arts) programme leading to Diploma in Arts Education (Performing Arts)
13. 4-year Integrated programme leading to B.A.B.Ed./B.Sc.B.Ed. degree.
14. Bachelor of education programme 3-year (Part Time) leading to Bachelor of Education (B.Ed) degree

15. 3-year Integrated programme leading to B.Ed., M.Ed (Integrated) degree

Two of the widely opted courses amongst those given below are Bachelor of Education (B.Ed) and Diploma of Elementary Education (D.El.Ed) and they also serve as criteria for eligibility to become a teacher. Numerous institutions, both government and privately funded, offer these courses.

### **Bachelor of Education Course (B.Ed)**

It is an undergraduate degree course with a minimum qualification of B.A, B.Sc or B.Com from a recognised university with at least 50% marks. The current B.Ed programme has gone through many changes and the current course content aims to be holistic. The National Council for Teacher Education (NCTE), in a move “to make it a more professionalized and rigorous teacher education programme” had revised its Regulations through notification of 1st December, 2014 (NCERT, 2016). The syllabus of the B.Ed. programme has also been revised under the NCTE Regulations, 2014 and new course modules on I.C.T., Yoga Education, Gender Studies and Disability Education have been made compulsory in all the major programmes of teacher education starting 2015-16. Provision for 20 weeks of internship has

been introduced for rigorous training of student teachers. The course looks at Perspectives in Education, Curriculum and Pedagogic Studies, Engagement with the Field and Courses on Enhancing Professional Capacities. Following is the detailed course outline:

#### Section A: Perspectives in Education

- PE 1: Childhood and Growing Up
- PE 2: Contemporary India and Education
- PE 3: Learning and Teaching
- PE 4: Gender, School and Society
- PE 5: Knowledge and Curriculum
- PE 6: Creating an Inclusive School
- PE 7: Health, Yoga and Physical Education

#### Section B: Curriculum and Pedagogic Studies

- CPS 1: Language across the Curriculum
- CPS 2&3: Pedagogy of two School Subjects (Social Science, Biological Science, Physical Science, Mathematics, Hindi, English, Urdu, Sanskrit)

#### CPS 4: Assessment for Learning

#### Section C: Engagement with the Field

#### Section D :Courses on Enhancing Professional Capacities (EPC)

- EPC 1: Reading and Reflecting on Texts
- EPC 2: Arts in Education
- EPC 3: Understanding ICT and Its Application
- EPC 4: Understanding the Self

**Assessment:** The course structure and semester wise distribution of courses along with time required for their transaction and the total marks, internal assessment marks and external marks assigned to each course are defined. So the course is broken up into four semesters, and there is an average assessment ratio of 30% internal assessment and 70% external assessment. In the internal assessment, the teacher-learners are marked and assessed through both written examinations and activities by the teacher-educators of their respective institutes while the external assessment refers to written examinations assessed by teacher-educators across the teacher training institutes. The internship, i.e, actual training in the work space has the highest weightage at 200 marks, while the marking for other themes of study range from 50-100.

### **Bachelor of Elementary Education (B.El.Ed)**

It is a 4 year Integrated professional degree programme of elementary teacher education. It is a full time graduate course, not available under distance or correspondence as of 2011. The first 3 years are a combination of theory and practicum courses and the fourth year culminates with a direct experience of school functioning, teaching practice and reflection. It is a bilingual course being available in both English and Hindi. It was conceptualised by the

Maulana Azad Centre of Elementary and Social Education of the Department of Education, University of Delhi and launched in the year 1994-1995. The programme was an attempt to fulfil the needs of professionally qualified elementary school teachers. The course requires 10+2 qualifications with an aggregate percentage of minimum 55% on an average across the various institutions.

The theory part of the course consists of foundation courses of educational theory specific to elementary education, core courses of subjects, pedagogic courses developing pedagogic perspectives and teaching methodologies, Liberal Courses of specific discipline, and specialised courses that are optional. The practicum part of the course is elaborate and touches upon all the various aspects of school functions, such as:

1. Performing and Fine Arts, Crafts and Physical Education: to enable the teacher-students to experience and understand the learning process in a holistic manner, beyond just the cognitive dimension.
2. School Contact Programme: Contact of the teacher-students with children and contend with issues of planning, organising, communicating and developing a positive attitude towards the children.

3. Observing children: Systematic observation to establish crucial link between theoretical concepts and ground realities.
4. Self development workshops
5. Classroom management and material development: to learn how to evolve pedagogic practices that address crucial concerns of classroom management, design and choice of activities, material development and assessment.
6. School internship: translating knowledge-base and professional skills into reflective classroom practices.
7. Projects: of themes arising out of school experience.
8. Tutorial/Colloquia: To build connections between theory, observations and classroom teaching

Assessment: At the end of each academic year, annual examinations are conducted on all theory courses. 30% weightage is given to internal assessment. Practicum is entirely based on internal assessment. The minimum requirement of passing for theory papers is 40%, while for the practicum it is 50%.

It has been recognised by the various agencies involved in teacher education that classroom practice is closely tied

to the manner in which teachers learn to engage with teaching as a practical and social activity. However, the Report of the High Powered Commission on Teacher Education Constituted by the Hon'ble Supreme Court of India, 2012 noted that the approach to teacher education has remained unchanged for over half a century in crucial aspects: the institutionalised intellectual isolation of the school teacher and a circumscribed engagement with pedagogy as mere technique. The 'institution' of teacher education operates as a 'system' of well established conventions that structure social interaction, reproducing 'shared habits of thought' through the 'conventions' and the 'rituals' of teacher preparation. The institutional cultures of pre-service teacher education in India are also a consequence of their position in a system of higher education. The bulk of secondary teacher education institutes offering teacher training courses like B.Ed are outside university campuses. Elementary teacher education institutes, including DIETs, offering programmes leading to a Diploma in Education (D.Ed) are not linked to universities. Teacher educational institutes function as closed spaces with the sole mandate of 'training' teachers that does not do justice to the mandate of a teacher's actual work. (Department of School Education and Literacy, Ministry of Human Resource Development, 2012)



# 6. ASSESSMENT OF TEACHERS: MODELS AND FRAMEWORKS

Below we provide brief reviews of some of the existing models and frameworks for assessment of in-service teachers. Questions of what counts as good and effective teaching, classroom preparation and planning, explicit and covert indicators of good teaching are the questions that often have been at the core of the development of assessment frameworks. Scalability and reliability form the core of concerns regarding concerns of translation and administration of the models.

## **(a) Value Added Modelling (VAM): Positing Direct Co-relation between Teaching and Learning Performance**

The idea of judging the effectiveness of teachers based on the learning of students was first introduced into the research literature in 1971 by Eric Hanushek in California, United States. After being part of the teacher evaluation tool for schools in Tennessee in the 1990s, the use of the technique expanded with the passage of the No Child Left Behind (NCLB) legislation in 2002, which focused on teacher accountability in

direct, measurable terms. Value-added modelling (also known as value-added analysis and value-added assessment) is a method of teacher evaluation that measures the teacher's contribution in a given year by comparing the current test scores of their students to the scores of those same students in previous school years, as well as to the scores of other students in the same grade. In this manner, value-added modeling seeks to isolate the contribution, or value added, that each teacher provides in a given year, which can be compared to the performance measures of other teachers.

Researchers use statistical processes on a student's past test scores to predict the student's future test scores, on the assumption that students usually score approximately as well each year as they have in past years. The student's actual score is then compared to the predicted score. The difference between the predicted and actual scores, if any, is assumed to be due to the teacher and the school, rather than to the student's natural ability or socioeconomic circumstances. Hierarchical linear modelling is used to

predict the score for a given student in a given classroom in a given school. This prediction is based on aggregated results of all students. Each student's predicted score may take into account student level (e.g., past performance, socioeconomic status, race/ethnicity), teacher level (e.g., certification, years of experience, highest degree earned, teaching practices, instructional materials, curriculum) and school level (e.g., size, type, setting) variables into consideration. The idea is to isolate the teacher's contributions from factors outside the teacher's control that are known to strongly affect student test performance, including the student's intelligence, socio-cultural attributes, parental involvement, etc.<sup>1</sup>

Value Added Modelling has attracted strong criticism for its narrow and instrumentalist connections between teaching and student performance. The direct correlation assumed by VAM also underscores a particular view of teaching as exclusively output driven work.<sup>2</sup>

### **(b) Broad Spectrum of Teachers' Work: Assisting, Developing, and Evaluating Professional Teaching (ADEPT)**

Developed in the state of South Carolina, United States for the explicit purpose of raising teacher quality, ADEPT has been implemented across schools in the state since 1998<sup>3</sup>. ADPET includes 10 performance standards that are grouped in 4 major domains: Planning, Instruction, Classroom Environment and Professionalism. The performance standards and domains are given below:

#### Domain 1: Planning

APS 1 - Long-Range Planning

APS 2 - Short-Range Planning of Instruction

APS 3 - Planning Assessments and Using Data

#### Domain 2: Instruction

APS 4 - Establishing and Maintaining High Expectations for Learners

APS 5 - Using Instructional Strategies to

<sup>1</sup> For methodological questions regarding value added modelling, see Amrein-Beardsley (2008); for accountability and VAM, see Liverson (2017).

<sup>2</sup> Value Added Modelling steered the idea of teacher accountability, performance and desired output and it has been an impetus for a number of studies on educational administration, teacher motivation and ranking. For a spirited critique of VAM. See here: [https://www.washingtonpost.com/news/answer-sheet/wp/2012/12/23/the-fundamental-flaws-of-value-added-teacher-evaluation/?utm\\_term=.057216ccc883](https://www.washingtonpost.com/news/answer-sheet/wp/2012/12/23/the-fundamental-flaws-of-value-added-teacher-evaluation/?utm_term=.057216ccc883)

<sup>3</sup> The acronym ADEPT appears similar to the advancement initiative taken up by Sarva Shiksha Abhiyan (SSA) entitled Advancement of Educational Performance through Teacher Support (ADEPTS) which looks at coordination among various agencies and local educational bureaucracies that are involved in education in India.

Facilitate Learning

APS 6 - Providing Content for Learners

APS 7 - Monitoring, Assessing, and  
Enhancing Learning

Domain 3: Classroom Environment

APS 8 - Maintaining an Environment  
That Promotes Learning

APS 9 - Managing the Classroom

Domain 4: Professionalism

APS 10 - Fulfilling Professional  
Responsibilities

As key elements of expected capacities and practices are articulated as part of every performance standard, scores are assigned on the basis of the performance (1 or 0), leading to a cumulating score for every domain. Ahead of the assessment, a set score for pass/fail is determined for each domain and overall. Since the capacities expressed through every standard can be addressed as “yes/no”, this model can effectively bring out the areas that need attention by concerned teachers.

While the framework acknowledges that a teacher’s work cannot be entirely captured within four domains, the prominent domains are introduced in order to generate a standardised

sample. The framework seems to privilege classroom management over other aspects of teaching. Including a feedback loop and reflective follow-up will strengthen the model<sup>4</sup>.

### **(c) Interaction centered Evaluation: Danielson’s Framework**

Charlotte Danielson, eminent American educator, developed the Framework for Teaching Evaluation Instrument in 2011 and further enhanced it in 2013 to facilitate evaluations. The framework evaluates the performance of teachers in 4 broad domains- Planning and Preparation, Classroom Environment, Instruction and Professional Responsibilities. Under each domain, there are detailed elements that are dealt with in different segments. Each segment is characterised by a comprehensive description, list of indicators and how a teacher can be evaluated to fit in one of the four levels in each segment: unsatisfactory, basic, proficient, distinguished. It is not a scored framework, and is more qualitative in nature.

Each of the domains is broken down to smaller units of work like planning and preparation is seen in 6 parts –

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<sup>4</sup> ADEPT guidelines along with formal evaluation templates are provided here: [https://ed.sc.gov/scdoe/assets/file/programs-services/50/documents/adept\\_guidelines.pdf](https://ed.sc.gov/scdoe/assets/file/programs-services/50/documents/adept_guidelines.pdf)

1. Demonstrating knowledge of content and pedagogy
2. Demonstrating knowledge of students
3. Setting Instructional outcomes
4. Demonstrating knowledge of resources
5. Designing coherent instructions
6. Designing student assessments

Each of these units have been explained in great details with indicators, and for each of these units, there are ample possible examples along with the critical attributes for elucidation of the levels of unsatisfactory, basic, proficient and distinguished in each. This ensures clarity in real term application of such a detailed framework. The framework also takes into consideration in great details some of the nuanced elements related to teaching like organising the physical space of the classroom, creating an environment of respect and rapport, discussion techniques, engaging students in learning – which in other frameworks have been dealt either as a subset of a larger element or taken for granted to be a part of other elements and hence does not give as much weightage as this framework.

The study of the domains shows that the work of the teacher is being treated like an extremely interactive process and hence being dealt in a manner that does not talk too much of the teacher's capabilities as a stand alone element, but as a dynamic mix of action and controlled reaction, planning and organisation, empathy and relationship with people and space. Thus, many inter-related components are being looked at in a simple manner in this framework.

#### **(d) Evaluating Competence and Attitude: Centre for Teacher Accreditation (CENTA)**

Centre for Teacher Accreditation (CENTA) is a social enterprise developed in Bangalore, India that has been active in domains of teaching standards and certification. The certification involves three levels: L1, for new teachers and those in their early stages of their career; L2, for mid-career teachers who have taught for 3-10 years; and L3 for those teachers who have been in the profession for over 10 years<sup>5</sup>. CENTA Standards include two major dimensions: competencies and mindsets. Competencies include 3 types: technical, core and professional whereas mind sets refer to the attitudes and beliefs

<sup>5</sup> Details of CENTA can be found here: <https://www.centa.org/>

of the teacher. For each of the three levels (L1-3), a set of competencies and standards have been defined.

This framework is qualitative and several descriptors are attached to each of the competencies and various connected aspects. While there are no scores assigned, the nature of the assessment is such that it highlights acceptable behaviours over capabilities. For instance, teachers are prone to state the desirable performance/behaviour associated with classroom interactions rather than listing out their efforts of more classroom interactions that may have moderately worked or failed entirely. Similarly, in assessing the mindset, the framework posits broad tenets (for instance proactiveness) that may not be enough to assess teachers' beliefs and attitudes toward teaching. While descriptors allow for capturing the distinct ways in which classrooms and teaching shape up and contribute to creating a unique learning ecology, the behavioural and attitudinal aspects of teachers work do not complete the story of teaching. Reflective journals and peer feedback could strengthen the assessment model.

**(e) Multiple and Evolving Measures:  
The Measures of Effective Teaching  
(MET) Project**

The Measures of Effective Teaching (MET) is a research and action partnership of several leading academic institutions, teacher education centres, teachers, administrators and district educational bureaucracy in the United States. Supported by Bill and Melinda Gates Foundation, the MET project is based on a large scale data gathered in seven school districts involving teachers at targeted grade levels (grades 4 to 9) and in targeted subject areas (English, Language Arts, Mathematics and Biology). Through opportunity sampling 3,000 teachers from 317 schools became volunteer participants for the study. The MET project was based on two core assumptions: First, student achievement gains are important parts of a teacher's evaluation, and other assessment related components such as classroom observation are reliable predictors of student learning. The project measured student assessment through official, standardised state assessment along with the supplemental assessments including Stanford 9 Open-Ended Reading Assessment in grades 4 through 8, Balanced Assessment in Mathematics (BAM) in grades 4 through 8, and the ACT QualityCore series for Algebra I, English 9, and Biology. Videos of class sessions were made available that were scored using the five protocols:

- Classroom Assessment Scoring System (CLASS), developed by Robert Pianta, University of Virginia
- Framework for Teaching, developed by Charlotte Danielson
- Mathematical Quality of Instruction (MQI), developed by Heather Hill, Harvard University, and Deborah Loewenberg Ball, University of Michigan
- Protocol for Language Arts Teaching Observations (PLATO), developed by Pam Grossman, Stanford University
- Quality Science Teaching (QST) Instrument, developed by Raymond Pecheone, Stanford University

The broad guiding principles governing MET are the following:

1. Any system of teacher evaluation would agree that teacher knowledge, skills and behaviour that enable better student learning.
2. The measures for evaluation should reflect the multifaceted nature of effective teaching
3. Overweighing certain measures should be avoided so that there is fair distribution among diverse teaching practices
4. High ratings on measures should translate into better learning outcomes. If teachers begin to score higher on a measure, but higher scores are no longer associated with desired outcomes, then new measures are needed.
5. Measurement of teaching should reflect the quality of teachers' practice and not the idiosyncrasies of a particular lesson, observer, or group of students.
6. Reliability without accuracy amounts to being consistently wrong. Accuracy of observations requires rigorous training on how to differentiate performance across all competencies within an observation instrument.
7. MET project data suggest that teachers' effectiveness is unlikely to be distributed equally among several performance categories.
8. While some teachers' low performance will require administrative action on behalf of students, it is a waste of effort to use measures of teaching only for high-stakes decisions as the purpose of teaching goes beyond testing.

<sup>9</sup> See Speech of Shri Naveen Patnaik, Chief Minister, Orissa 50th National Development Council Meeting on 21st December 2002 at New Delhi, available at <http://planningcommission.nic.in/plans/planrel/pl50ndc/orissa.pdf>, accessed on January 10, 2015.

9. Multiple measures provide rich information to help teachers improve their practice.
10. The responsibility for improving teaching shouldn't rest with teachers alone. Measures of effective teaching enable school systems to better support teachers' improvement needs. Sound measures help school systems know where to target professional development and whether the supports work.

The MET project's strongest point is the way it has been backed by research. Multiple assessments, parameters, student learning, student perception and teacher narratives make up important aspects of the evaluation structure. It is also of immense importance that longitudinal data have been gathered, thus making numerous kinds of evidence and research in teacher education possible.

**(f) Broad Predictors of Teachers' Work: Performance Indicators (PINDICS)**

Performance Indicators or PINDICS is based on the provisions in RTE Act 2009 (sections 24, 29), National Curriculum Framework (NCF) – 2005 and Sarva Shiksha Abhiyan (SSA) Framework-2011. PINDICS is used by teachers for self

assessment and by supervisory staff for teacher appraisal – the motive of both being to assess their performance, understand progress and delineate areas of improvement. It consists of performance standards (PS), specific standards (SS) and performance indicators (PI). Performance standards are the areas in which teachers perform their tasks and responsibilities. Specific standards refer to specific tasks which are expected to be performed by the teachers and come under performance standards. From specific standards, performance indicators have been derived. (National Council of Educational Research and Training, 2013)

The framework has identified seven performance standards and specific standards:

- Designing Learning Experiences for Children
- Knowledge and Understanding of Subject Matter
- Strategies for Facilitating Learning
- Interpersonal Relationship
- Professional Development
- School Development
- Teacher Attendance

The Performance Indicators (PI) are rated on four point scale (1-to-4), indicating the levels of performance:

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

The framework puts forward guidelines for self-assessment by teachers and appraisal guidelines by head teachers. According to this framework, teachers are expected to conduct self-assessment twice a year wherein they need to rate their performance on the scale. In their assessment, the head teachers are required to see the self-assessment, classroom observation, and dialogue with teachers and students. **Further,** the framework is comprehensive and considers a number of tasks that go into the making of various activities and strategies for facilitating learning.

The framework looks more extensively at execution of teacher responsibilities as compared to planning, knowledge, professional development and other standards; stating 26 indicators under 'Strategies for Facilitating Learning' alone. The indicators under 'Designing Learning Experiences for Children' mention a few tools to be used in planning such as textbooks, students records and teaching materials but do not outline any plan template that could be

followed. It does not mark out any short term or long term planning indicators, unlike ADEPTS. There is no indicator taking into account the differences in planning for students with different learning capacities. For self-assessment, the feedback of students and their test scores are not taken into consideration. There are no indicators to deal with understanding the socio-cultural/ethnic/economic differences among students.

PINDICS takes into consideration the physical space of the classroom, the environment of learning, discussion techniques and engaging students in learning activities. The ability to deal with diverse situations, the traits of empathy and sensitivity, and the ability to take initiative and be innovative are given importance. The framework is uniform for all levels of teachers and helps to categorize teachers into hierarchical levels on the basis of their performance, instead of their experience and years of teaching. The scoring pattern, unlike ADEPTS, is not restrictive and does not force to score performance wholly as right or wrong.

### **(g) Enhancement Driven Self-Assessment: The Thoughtful Classroom Teacher Effectiveness Framework**



The Thoughtful Classroom Teacher Effectiveness Framework (TCTEF) was formalized as teacher evaluation system by Dr. Harvey Silver, president of Silver Strong & Associates in 2009. Following the pilot version during 2010-2011, the Framework was formally approved as a rubric for teacher evaluation in New York and New Jersey in 2011. The TCTEF is fully automated using STAGES software developed by 'K-12 Evaluation Solutions'. TCTEF is a comprehensive system for observing, evaluating, and refining classroom practice. It synthesizes a wide body of research on instructional design and teacher effectiveness, as well as insights from over 250 teachers and administrators. The ultimate goal of the Framework is to create a common language for talking about high-quality teaching and how classroom practice can be improved (Silver Strong & Associates, 2011).

Formal structure of assessment includes four "cornerstones of effective teaching" articulated by the framework, as well as five "episodes of effective instruction". This, a combination of overall organisation and preparation and actual teaching get assessed under TCTEF. The framework also spells out a set of observable teaching indicators and relevant student behaviours.

Four corner stones of effective teaching

are expected to represent universal elements of quality and consider teaching outside of its narrowly defined tenets:

- (a) Organisation, Rules and procedures
- (b) Positive relationships
- (c) Engagement and enjoyment
- (d) A culture of thinking and learning

Five episodes of effective instruction include:

- (1) *Preparing Students for New Learning*
- (2) *Presenting New Learning*
- (3) *Deepening and Reinforcing Learning*
- (4) *Applying Learning*
- (5) *Reflecting on and Celebrating Learning*

Teachers are expected to use these episodes to design high-quality lessons and units. The framework also pays attention to non- instructional responsibilities, including the teacher's commitment to ongoing learning, professionalism, and the school community. A simple *feedback protocol is provided* to help administrators provide meaningful feedback to teachers and conduct powerful pre- and post-observation conferences.

This framework is broad enough and includes an opportunity to set discussion prior to the assignment as well as after it is conducted.

# 7. TOWARDS A GROUND-UP MODEL

Following the reviews and models focusing on teacher assessment, we propose a framework that considers teachers' work to be creative, cultural and reflective enterprise that requires supportive material and emotional conditions, opportunities for upgrade and peer network. Since teachers' backgrounds, their responsibilities and contexts vary, the framework includes 20 hours of asynchronous modules created for teachers that would help them address a number of issues in classroom.

Our framework identifies schools as units where the framework can be translated into action; which means we move away from "one size fits all" models and encourage school administration and teachers to work with this framework keeping in mind the conditions and realities of their schools, profiles and background of their students and upgradation opportunities provided to teachers.

The details of the framework are provided below:

## (a) Purpose and Scope:

- The framework is designed for in-service teachers who will become active participants in two Teacher Support Groups (TSG) in their schools. One group will involve all the teachers of the school whereas the other, smaller group will involve teachers in accordance with their years of experience. The group's strength and membership will vary according to the types of schools.
- The framework includes a training component that can be accessed in terms of direct, in-person training or asynchronous video and lesson contents delivered to them.
- The framework has qualitative and quantitative components and it requires active participation by teachers.
- The framework gives priority to reflection, feedback, mentoring and collaborative working in order to arrive at excellence without its narrow trappings
- The framework includes inputs of colleagues/heads, along with a follow-up action

**(b) Structure:**

The framework involves the following stages:

- A. Teachers will undergo 10 hours of training module delivered to them directly or asynchronously. The module includes a handbook, audio-visual contents, an activity book and journal for reflection and feedback
- B. Once the teacher completes the training, she embarks on the teaching enhancement and assessment that takes place in two parts: Weeks 1-4 and weeks 5-6.
- C. As part of the handbook exercise, the teacher would identify her set of needs and provide an honest reflection of her teaching.
  - (5 questions with bubbles to be filled up by teachers)
  - iii. Helping all learners  
(5 questions with bubbles to be filled up by teachers)
  - iv. Recognising diverse learners and opting for best approaches  
(3 questions with bubbles to be filled up by teachers)
  - v. Qualitative Portion: A short reflective paragraph by the teacher on her values, the difficulties and success in following these values.  
(5 points)

The assessment will be conducted on the interrelationship between the following 9 domains and the teacher's response to them.

**PART 1: 4 domains to be addressed in 4 weeks**

**Domain # 1: Teaching values:**

**a. Overall values: Questions with a total score of 23**

- i. Creating love for learning:  
(5 questions with bubbles to be filled up by teachers)
- ii. Contributing to excellence and empathy

**Domain # 2 Classroom climate: Questions with a total score of 25**

- vi. Respect for Everyone  
(1 questions with bubbles to be filled up by teachers)
- vii. Creative Strategies for Discipline  
(1 questions with bubbles to be filled up by teachers)
- viii. Emphasising hard work, cooperation  
(1 questions with bubbles to be filled up by teachers)
- ix. Interaction and openness  
(1 questions with bubbles to be filled up by teachers)
- x. Qualitative Portion: Teachers are to discuss each of the 4 domains, using their classroom as an example.  
(5 points)

### Domain # 3 Pedagogy: Questions with a total score of 25

- xi. Best way to teach concepts  
(1 questions with bubbles to be filled up by teachers)
- xii. Identify relevant knowledge and useful practices  
(1 questions with bubbles to be filled up by teachers)
- xiii. Best ways to understand student learning, reinforcing/reorienting  
(1 questions with bubbles to be filled up by teachers)
- xiv. Understanding learning outcomes  
(1 questions with bubbles to be filled up by teachers)
- xv. Qualitative Portion: Teachers are to discuss each of the 4 domains, using their classroom as an example.  
(5 points)

### Domain #4 Instructional Design: Questions with a total score of 25

- xvi. Planning and organisation  
(5 questions with bubbles to be filled up by teachers)
- xvii. Specific modules/activities  
(5 questions with bubbles to be filled up by teachers)
- xviii. Informal and formal assessments  
(5 questions with bubbles to be filled up by teachers)

- xix. Differentiated instruction  
(5 questions with bubbles to be filled up by teachers)
- xx. Qualitative Portion: Teachers are to discuss each of the 4 domains, using their classroom as an example.  
(5 points)

### Part 2: Impact, Reflection and Excellence (weeks 5-8)

The teachers will participate in **at least one** meeting with the Peer Support Group (PSG)

### Domain #5 Impact:

- xxi. Identifying learning impact  
(5 questions with bubbles to be filled up by teachers)
- xxii. Interpreting student learning  
5 questions with bubbles to be filled up by teachers
- xxiii. Qualitative Portion: Teachers are to discuss the aspects of impact that are outside the quantitative questions (10 points)

### Domain #6 Deep Learning: Strategies for enhancing teaching

- xxiv. Creating love of learning  
(5 questions with bubbles to be filled up by teachers)

xxv. Establishing long-term interest in the subject

(5 questions with bubbles to be filled up by teachers)

xxvi. Facilitating greater avenues for students

(1 questions with bubbles to be filled up by teachers)

Quantitative Portion: Teachers are to submit at least 3 entries from their journal (15 points)

Domain # 7: Identification of successful practices during the year:

Teachers to develop a reflection piece focusing on successful practices

1. Identification of needs that require attention:
2. Identification of needs to be decided within school contexts; appropriate steps to be taken

Domain # 8: Brief reflection and feedback:

Teachers to offer reflection and feedback on the assessment and professional development. Administrative officials in schools to weigh in and decide on the future course of action.

## 8. WAY FORWARD

As part of our short-term research, we have paid attention to the central questions of teacher education and the models focusing on teacher evaluation. Deeper, qualitative field work will enhance this research with which we hope to remain engaged.

## 9. ACKNOWLEDGMENTS

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