



Azim Premji
University

A publication from
Azim Premji University

Learn*ing* 
Cur*ve*

Issue XXVI, February 2017



Inside:
Perspectives
From the Field
Reviews

THE TEACHER

Editorial Team

Chandrika Muralidhar
Indumathi S
Madhumita Sudhakar
Prema Raghunath

Advisors

Ramgopal Vallath
S Giridhar
Umashanker Periodi

**Special Advisors
to the Issue**

Gautam Pandey
Indu Prasad

Designed by

Banyan Tree
98458 64765

Printed by

SCPL
Bangalore - 560 062
+ 91 80 2686 0585 /
+ 91 98450 42233
www.scpl.net

Please note: All views and opinions expressed in this Issue are that of the authors and Azim Premji University bears no responsibility for the same.



“Learning Curve is a publication on education from Azim Premji University. It aims to reach out to teachers, teacher educators, school heads, education functionaries, parents and NGOs, on contextual and thematic issues that have an enduring relevance and value to help practitioners. It provides a platform for the expression of varied opinions, perspectives, encourages new and informed positions, thought-provoking points of view and stories of innovation. The approach is a balance between being an ‘academic’ and ‘practitioner’ oriented magazine.”



FROM THE EDITOR



The teacher is central to the teaching - learning process, whatever a school's policies, whether private or public, whatever board it has chosen to adopt. The teacher is an essential component of the success of the process. This being the case it is essential to consider what 'creates' a

good, effective teacher and what sustains her and, through her, the framework of the school. When many such individual examples are considered, we come to the essential task of evaluating the entire system. What makes one person's schooling a great and memorable experience, resulting in a confident, self-reliant student who grows to become an adult who contributes positively to herself/himself and those around in whatever field she/he may have chosen to enter and occupy?

While it is true environment and physical spaces play an important role in making students' experiences richer, the person who organises these experiences, draws out responses that are educative and self-enhancing has to be supported in every possible way, so that through her the classroom becomes a place where students learn where actual learning takes place, how to think, rather than what to think, to solve problems and discover their signature strengths.

It is with the aim of examining teacher development that we unanimously agreed on devoting an issue of the Learning Curve to this all-important subject. There is universal consensus that the teacher needs constant and on-going renewal and her skills must be replenished to keep the fire of enthusiasm burning. While it is true that some people decide very early that they want to be teachers whether in primary or high school, all the way up to higher academics, there is no doubt that formal training plays a very important part, just as medical school is essential to create a doctor. The first training used to be on the job, when young teachers were thrown into the deep end to sink or swim and learn by the trial and error method. Today, fortunately for both the teacher and the student, training has become

mandatory. Training is available at two levels, firstly a diploma for those who enter the profession straight after 12th Class, second, a two-year B.Ed. course. The common point is that the courses are structured in all aspects of school teaching from lesson planning to delivery, setting papers to corrections and evaluation, understanding the psychology of students of varying ages and abilities.

These are the formal methods of training and are very important. But training can take many forms. Pre-service training apart, there is in-service training when teachers leave the school for a few days at a time to attend refresher courses, where the out-of-class, informal interactions can be as valuable as the ones inside the classroom. Some people choose to take a whole year's sabbatical in order to refresh and renew. Then again, trainers visit schools and deliver courses which teachers attend.

Two ways in which in-service training takes place and which do not receive the importance and recognition they deserve are the staffroom and classroom itself. A lot of undocumented exchanges take place in the staffroom about a class a group of teachers go to or taught the previous year in which a lot of vital information is gathered about the learning styles of students, their abilities and their individual learning styles. Insightful remarks, sometimes casually uttered, have changed the course of instruction. Then again, classroom observation by colleagues can benefit both the observed teacher and the person doing the observation.

This Issue is aimed at not only teachers and teacher-educators, but also policy makers and observers, in short, anyone with an interest in education.

The focus articles deal with the policy and practice of teacher development and suggests alternatives while two more examine gender sensitisation and pre-service teacher preparation discussing in considerable detail the curriculum and its realities. This is followed by articles from practitioners across the field, from both private and public institutions. Teachers have recounted their experiences on the ground. There are critiques of the present system holding up practices against the light of theory, while some teachers have described their positive encounters, testifying to the dedication of colleagues working with enthusiasm and vigour in remote areas, without the help of sophisticated

teaching aids. Two articles in particular describe teachers who made their profession their life's work and added new dimensions to the term 'teacher'. Spaces which encourage teachers' learning - such as the Teacher Learning Centres (of Azim Premji Foundation), a concept developed to increase teachers' resources - have been written about, as have curriculum revision for pre-service training.

Altogether, this Issue has been a very valuable learning experience for us in the editorial team. We look forward to your comments suggestions for further improvement and hope that you, the reader, find the articles and their contents useful in your own teaching.

Prema Raghunath

Editor, Learning Curve

prema.raghunath@azimpremjifoundation.org

CONTENTS

SECTION A PERSPECTIVES

Teacher Education and Management: Policy, Practice and Alternatives B S Rishikesh	02
On Good Teachers and Learning Krishna Haresh	10
Teachers working together – WORKS! Umashanker Periodi	14
The Teacher and the Government Rashmi Shukla Sharma	17
Pre- service teacher preparation - curriculum, practice and reality Hridaykant Dewan	20
Inertia in Teacher Education and the Need for Judicial Intervention Poonam Batra	25
The elephant in the room that we refuse to acknowledge Vimala Ramachandran	29
Empowering Teacher Educators Mythili Ramchand	33
Reconsidering the Structure of Educators’ Professional Development Reflections from the Gyan Shala experience Pankaj Jain	35
Acharya to a Service Provider: Travelling without Reaching Rajesh Kumar	39

CONTENTS

SECTION B FROM THE FIELD

I Wish to Do a Lot Kalu Ram Sharma	44
If the Destination is Emancipation of Teachers then One of its Major Routes is Reflective Practice Some Insights from Personal Experiences of an Education Worker Kuldeep Garg	46
Man of responsibilities: story of a passionate head teacher Mohammad Zafar	50
Teacher Learning Centre: An Effective Space for Teacher Development Rudresh S	53
Re-structuring In-service Teacher Professional Development: Focusing on Pedagogical Content Knowledge Saurav Shome	56
The Role and Challenges of School Teachers in Contemporary India Asif Akhtar	60
Empowering Teachers through Development Bhavani Raghunandan	64
Case study of in-service Teacher Professional Development - An occasion or a progression Anju Das Manikpuri	67

CONTENTS

SECTION C REVIEWS

- Action Research and Reflective Practice 73
Sneha Titus and Indumathi S
- Book Review: The Reflective Teacher - 77
Case Studies of Action Research by Neeraja Raghavan;
Orient Black Swan Chennai (2016), xii, 254 pages, INR 270.00
A Review by Gururaj K



SECTION A

Perspectives





Teacher Education and Management: Policy, Practice and Alternatives

B S Rishikesh

The education domain is filled with debates, usually inconclusive because positions are taken based on myopic ideas and narrow goals which are then held on to strongly in spite of evidence that something contrary works better. However, one thing that most stakeholders agree as the foremost ingredient to improve education, is ‘the quality of teachers’.

Understanding the landscape

There are over 8.5 million teachers currently engaged in the task of education in about 1.5 million schools impacting the lives of more than 260 million children in classes 1 to 12. Of these over 5 million are in the elementary schools.

Table 1: Schools, Enrolment and Teachers in India

School Type	Schools	Enrolment	Teachers
Government (Aided included)	1196658	174765189	5808273
All Management (Government + Private)	1522346	260596960	8691922

(Source: U-DISE 2014-15)

A staggering number from any angle. These teachers have acquired a professional certificate or degree from any of the over 18,000 Teacher Education Institutions (TEIs) that exist in the country. These figures also indicate that we have come a long way since Independence wherein there were only around 350 TEIs.

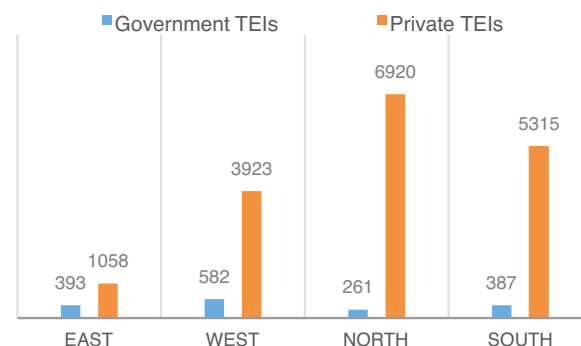
The National Council For Teacher Education (NCTE) is the apex body that manages the TEIs in the country. The key role of the NCTE is to ‘achieve planned and coordinated development of the teacher education system throughout the country’¹ which includes regulating and monitoring the Teacher Education (TE) system with a mandate that covers almost everything under the TE from issues such as granting permission to running courses to prescribing minimum qualification to become teachers.

This article attempts to capture the critical issues that the TE domain is facing at present – from the state of the TEIs and associated aspects of Teacher Development to the policies governing teachers and other aspects of Teacher Management. The key ideas of reform is presented at the end of each section: this is not to say there are no other ideas, but an attempt to identify the fundamental aspects under each section that has to change in order to better the TE system.

Teacher Education Institutions (TEIs)

The number of TEIs is a staggering 18000 plus! The figures in Table 1 (above) indicate that 80% of the total are government schools and 65% of the total students and teachers are in this system. However, when we analyse the TEIs numbers, the space is occupied by private players; more than 90% of the TEIs across the country are privately managed. It indicates that the private seized the opportunity and the Government could not keep pace with the increasing demand from schooling – though, it did provide the schools, the focus on providing adequate teachers was left to the private and this is true for all regions across the country; but one should also note that there is an uneven distribution between the States within a region.

TEACHER EDUCATION INSTITUTIONS



¹NCTE at a Glance; Objectives http://ncte-india.org/ncte_new/?page_id=782

There are few good TEIs across the country, which though private do not operate commercially, however they are few and far between; a majority of them are no more than 'teaching shops' or agencies doling out degrees for a 'price'. Quality has clearly not been accompanied by quantity.

On the other hand, in the government space, there are 571 District Institutes of Education and Training (DIET), 106 Colleges of Teacher Education (CTE), 32 Institutes of Advanced Study in Education (IASSE) & 33 State Council for Educational Research and Training (SCERTs) / State Institute of Education (SIE) in the country which originated in the 8th Plan period, post the National Policy on Education (NPE 1986). Some of the constructive work in the TE space has happened in these institutions, however, the quality of contribution is highly uneven across these institutions. Though they were set up under

the Centrally Sponsored Scheme of the Government of India, a large number of these institutions are plagued with – poor infrastructure, high levels of vacancies, dearth of high quality academic output, etc. that makes any kind of progress impossible (Azim Premji Foundation, 2010).

There are a large number of reports and studies that have highlighted the conditions of the TEIs that are spread across the country. The foremost of these studies has been the Justice Verma Commission (JVC) report². Appointed by the Supreme Court of India in 2012, the JVC report highlights the malaise at the core of TE, i.e. the TEIs and the abysmal state of affairs which is not only a scathing portrayal of NCTE's failure in regulating TE in Maharashtra, but a mirror of what exists in the name of TE across the country.

The key reform with regard to TEIs is to

- Review all existing private TEIs and prohibit those that do not comply to the norms as well as the spirit of what a TEI ought to be - in other words shut down TEI's which have become 'shops' that dole out teaching degrees; at the same time it is necessary to strengthen all the Government TEIs, upgrade them where required, so that those who want to study TE have the opportunity to do so in a good quality TEI.

Examples of different modes of professional development:

- Early tenure coaching – Experienced teachers, principals or specialists could be identified as coaches for observing classes of new teachers
- Peer learning – School leaders need to help plan schedules in way that teachers can spend enough time planning together, observing one another's classes and providing feedback
- Learning communities outside the school – voluntary professional teacher networks (e.g. Rajasthan, Uttarakhand and Karnataka) and ICT enabled online subject teacher groups (e.g. RMSA Karnataka)
- Resource centres – The district, block and cluster centres to be a repository of curricular material with abundant resources (print and digital) to help teachers in preparing for their classes and working on self-guided study
- Demonstration classes – Teachers who are good at their subject and pedagogy to conduct demonstration classes for other teachers to observe and learn. ICT could be used to develop such a repository of demonstration classes and be shared with all the teacher
- Sabbaticals for research/ advanced studies; Seminars, exposure visits, access to professional journals and e- learning communities etc.

Teacher Education and Professional Development of Teachers / Teacher Educators

Teaching is a profession and teachers are professionals. Therefore there is a need for maintaining a certain standard in this profession; but, our teacher qualification criteria does not

indicate that. The basic certification one requires to teach in an elementary school in our country is a diploma, which is acquired after class XII, by studying for two years – known by many names, but most commonly known as the D.Ed. (Diploma in Education). And, in order to be a teacher in

²JVC Report mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/JVC%20Vol%201.pdf

any of our secondary schools, you require a B.Ed. (Bachelor in Education), which till recently could be acquired in nine months after graduation! The NCTE amendments in 2014³, increased the duration to two years (NCTE, 2014). Unfortunately, you need no qualification to be a 'teacher' in most of our pre-primary set ups!

Without getting into the content of the TE programmes in the country, one can see the inadequacy of the programmes from their duration – till recently, a professional qualification acquired by a nine months course was required to teach 15 year olds! It took NCTE as long as it did to increase the duration of both the B.Ed. and the M.Ed., (the latter mandatory to become teacher educators), to two years. Not only is the increase of the duration of the B.Ed. programme inadequate with such little curriculum reform, it is completely ineffective to bring about any desirable change.

No long term change will happen in teacher education unless there is a fundamental shift in the quality of teacher preparation - this includes issues of curriculum, duration and institutional quality. The key reform required in this area is to streamline the required qualification and the TE duration:

- *Provide only one option to become a teacher across the country – and that option should be a 4-year integrated teacher education programme with subject (language, mathematics, etc.) and grade-level (elementary teaching, secondary teaching, and early childhood education) specialisation options.*

The current in-service teacher education, too, does not meet the requirements of practising teachers. The quality of academic support provided to teachers leaves much to be desired due to poor inputs, lack of resources and a series of professional constraints.

The key reform idea in this regard is to:

- *Shift the focus of in-service programs to give teacher's the choice of training programmes. The concerned TEIs must offer a calendar of courses in a year for teachers to choose from; on the same lines, teachers should be offered sabbaticals, fellowships, support for research, faculty exchange and exposure visits based on rigorous selection criteria at identified institutions as part of their professional development.*

Teacher educator quality

To bring about a substantial and sustainable improvement in the quality of teachers it is critical that the quality of teacher educators is improved and sustained. Some ideas for the improvement of the quality of teacher educators include- revamping the curriculum, duration and structure of the M.Ed. programme based on National Curriculum Framework for Teacher Education (2009) and establishment of voluntary professional networks of teacher educators including physical and ICT-enabled virtual forums for professional interaction and development.

The first step towards improving teacher educator preparation has been initiated by increasing the duration of the M.Ed. programme to two years. At least a hundred institutions across the country spread over all states that could be capable of running such a revamped programme should be identified and prepared to deliver such programmes.

The key reform idea with regard to teacher educators is to:

- *Develop a group of at least 500 outstanding teacher educators in every state and a separate cadre for teacher educators in each state as recommended by the 12th five-year plan.*

Teacher Management: Practices and Policies

Almost all key reports since 1950s emphasise the importance of focusing on teacher management related indicators in the system. This has been a running theme in policy documents such as the National Education Commission of 1964, National Policy on Education 1968, 1986 and 1992. The NPE 1986 devotes a section on 'The Teacher'.

The need for teacher autonomy

It is the teacher who experiences first-hand the difficulties children encounter while negotiating social, cultural and linguistic barriers. Every single child out of school must be transformed into a student. Instead of the targets set at the Centre, State, or district levels, each school and each teacher should be allowed to think of its own vision, and plan the educational activities. However, even the teacher training continues to be driven centrally by SSA. Autonomy to schools and teachers will not and cannot happen in isolation. It will have to be accompanied by various levels and

³NCTE Act 2014 ncte-india.org/ncte_new/?page_id=910

kinds of autonomy across the system beginning with autonomy to the State level institutions and that extending to district level institutions such as DIETs. It is only these paradigm shifts that will allow for the required changes on ground at the level of schools and teachers.

Teacher recruitment, promotions and transfers

Currently the country is facing an acute shortage of trained teachers and absence of appropriate qualities in those teachers who are in place.

Though the average Pupil-Teacher Ratio (PTR) for the entire nation is an envious 24:1 at primary and a flattering 17:1 at upper primary (U-DISE 2014-15); Uttar Pradesh with an acceptable 39:1 has the largest PTR in the country! However, all know that these averages do not reveal the actual picture. There are schools with a disproportionately large number of students compared to the number of teachers and vice versa. More than a lakh schools across the country continue to remain single-teacher establishments (MHRD, Annual Report, 2014-15). Given the non-school work teachers are invariably involved in, the contact time with students in these single-teacher schools are grossly inadequate.

The percentage of single teacher schools at the Primary level have large variations across States: Arunachal Pradesh (48.8%), Goa (39.5%), Rajasthan (25%), Andhra Pradesh (24%), Karnataka (14.9%), Himachal Pradesh (11.2%), Bihar (12.3%) and Odisha (9.2%).

Source: DISE 2013-14

Furthermore, a severe teacher shortage exists for specialised subjects, especially in remote and tribal areas. Added to this, at the secondary level, there is a shortage, which is going to be acute in the near future, of teachers of science, mathematics & geography across the country. Several Bachelors in Science programmes across the country have been closing down for want of students – this is the route through which we develop teachers for science and mathematics at the secondary level. If this ‘pipeline’ closes, the crisis of availability of qualified science and mathematics teachers at the secondary level will significantly deepen.

On one hand there is serious dearth of new teachers and on the other there is a lack of quality in large percentage of existing teachers and added to this is

the huge issue of nepotism that has driven teacher recruitment and management processes such as promotions and transfers across the country. One often hears the ‘rates’ for the job of a Government teacher depending upon the school level and the location and this despite the educational qualification already acquired.

Studies (Ramachandran et al, NUEPA, 2015) have also shown that huge variations exist in the current practices across the country and the states continue to have in place ad hoc measures. However, for about a decade some of the State Governments have taken initiatives which have streamlined the teacher management process to a large extent to get rid of corruption of all sorts, including nepotism. The southern States have led the way in this regard and have made the teacher recruitment and management processes very transparent (see box for the Karnataka example). However, these best practices have not been emulated by all the States in the country and till such time they are, issues that have plagued this domain with a direct bearing on teacher motivation will continue to have a negative effect and, as a result, will impact the quality of education delivered at our schools.

Even before the RTE Act recommended Teacher Eligibility Tests (TET) for all new recruitment of teachers, States such as Karnataka had systems in place to implement a centralised exam (Common Entrance Test; CET) as part of the recruitment process; for e.g., to enable these a Centralised Admission Cell (CAC) was created which not only looked at admissions for teacher education programs, but also executed teacher recruitment tests. These eligibility tests were followed by ‘counselling’ based on the rank in the CET which determined the location / school a teacher would get as his or her first posting within the established criteria.

Laying down of clear norms such as in Karnataka teacher transfer process, presented in table 2 below, is the first step towards clearing the mess in the area of teacher management. Once, the confidence of the teachers is gained and the teacher community feels that there is no unfair means adopted in the process, the transition will begin and the positive feeling can be channelized to bring out tougher reforms.

Table 2: Norms for Teacher Transfer in Karnataka

Norm	Elementary School Teachers	Secondary School Teachers
Unit of Seniority	District Level	Division Level
Competent Authority	Block Education Officer (BEO) (Appointing Authority)	Deputy Director of Public Instruction (DDPI); District level (Appointing Authority)
	Deputy Director of Public Instruction (DDPI) (Selection Authority)	Joint Director of Public Instruction (JDPI); Division level (Selection Authority)
Calculation of Vacant Posts to be filled by transfers	PTR = 40	Subject-wise Staffing
Computerized Counselling	Yes	
Upper Limit for Transfer	8 per cent of cadre strength within the unit of seniority*; 1 per cent of cadre strength outside the unit of seniority	

*This was 5% till 2015 when it was increased to 8% through an amendment to the Act.

Source: Reproduced from CBPS, 2015

Teacher salaries

The popular perception is that teachers of the public school system are one of the lowest paid Government employees. Data indicates otherwise! The current salaries as claimed by the State Governments are determined on the basis of the 6th Pay Commission and in some cases the respective State Commissions. On an average, at entry level the Government primary school teachers in the country are paid around Rs 20000 per month and after about 10 years of experience the teachers are

paid around Rs 32000 per month. The band in which teachers are paid is higher than that of the police constabulary, electricity company linesmen, village accountants, bank employees and railway station masters and by the end of their respective careers, doctors and nurses, police inspectors and bank managers are the only professionals in the rural economy who are paid more than an experienced teacher / head teacher. The table below throws further light.

Minimum and maximum 'take home' salaries (select States) before and after 6th pay commission

	Before 6th pay commission		After 6th pay commission	
	(min)	(max)	(min)	(max)
Govt. Primary school teacher	8697	9630	13762	21045
PST 10 yrs exp/ Head Teacher	11775	15635	20270	39831
DIET lecturer / MEO / BEO	11722	14762	22762	55082
DIET Principal / DEO	15635	35034	27547	60802
Post woman/man	2750		4700	18000
PHC Nurse	8427	19568	16298	46333
Police constable	6091	13691	10655	31499
Line man (electricity dept)		11228		16983
Village accountant			5200	20200

	Before 6th pay commission		After 6th pay commission	
	(min)	(max)	(min)	(max)
Village accountant			5200	20200
SM -Railways (@ village level)			14350	33000
Bank employee	8118		11495	28000
Post master				26076
PHC doctor	9809	33203	26108	59287
Police inspector	9090	21637	18760	49919
Bank manager	18450		20359	35100

*The range is based on the lowest and highest points of primary data collected by Azim Premji Foundation across its' field locations

Figures represent total salaries (Basic + DA + HRA)

^ There are States with current starting salaries lower than min. mentioned above (E.g. TN: 15 K) and higher than max. mentioned above (Punjab. 36k) Source: State reports – Working conditions of teachers in India

Teacher salaries therefore, is one component, which requires little attention. The Government has also announced the 7th Pay Commission which enhances the salaries further, also it is likely that some of the States that are yet to implement the 6th Pay Commission, will set up their own pay commissions at par or better than the 7th pay benchmark.

The key reform idea in the entire domain of teacher management is to:

- *Make teacher management highly transparent and provide teachers large amount of autonomy, at least within the classroom and to transact the syllabus. A transparent recruitment policy and clear and fair norms for promotions and transfers is the key to turn around the situation. It has happened in some States, and only needs to be emulated in the other States.*

Need to re-visualise The National Council for Teacher Education (NCTE)

Over the last decade, unlike critical institutions at the state level and below, most of the national level institutions have played their role to a large extent, but unfortunately, this cannot be said of the regulatory body that was established to focus on TE, i.e. the NCTE.

NCTE is currently seen as an inspectorial regulatory body focused mostly on infrastructure requirements and not as a body that leads thinking on professional standards, academic rigour and curricular innovation in teacher education. As already mentioned, improving teacher education is at the core of improving education in India and

that needs a full scale, grounds-up redesigning of the system, curriculum and operations. Such a full-scale revamp needs a 'champion' and not an 'inspector'!

In fact, it has failed even as an inspector in that one of NCTE's functions is to 'take all necessary steps to stop commercialisation of TE'⁴, given the rampant privatisation of the TE space from a little over a decade indicates the complete failure of NCTE not only in its inability to stop commercialisation, but also in its failure to regulate and monitor the quality of education delivered in the name of TE across the country.

Hence, the NCTE should look again at the monitoring role it has been playing for Teacher Education Institutions (TEI) and instead align itself to the new thinking on TE wherein it is proposed that all TEIs become multi-disciplinary learning environments and be brought under Universities. Once this happens the TEIs can be regulated through the University Grants Commission (UGC) which regulates the functioning of the Universities, and in the light of this it is important for NCTE to not duplicate UGC efforts and should instead focus on other constructive exercises.

The key reform agenda with regard to NCTE is:

- *NCTE should either be the enthusiastic champion of this or should be disbanded. There are two options before NCTE in this context: (a) It plays the role of a facilitator and enabler of quality by developing broad academic norms e.g. guidelines (not rules) for faculty mix, curricular frameworks for teacher education to support Universities*

⁴NCTE at a Glance; Functions of the Council http://ncte-india.org/ncte_new/?page_id=782

and/or it becomes an accreditation body for teacher education under NAAC; (b) If above is not possible, it should end its existence and transfer complete ownership of teacher education to the Universities and basic regulatory mechanisms to the UGC.

Financing Teacher Education

The Kothari Commission and all other educationally concerned commissions and individuals since then have clearly stated that if we are to meet stated educational objectives the State has to make investments in education that are commensurate with the goals to be achieved. The insufficient funding for education has effected TE as it received a very a small percentage of the overall education budget.

Kothari Commission recommended allocating 6% of our GDP to education, but as we celebrate the 40th anniversary of the Kothari Commission's submission of its monumental report, we have barely crossed the 4% mark on a regular basis. We have indeed made progress from a below 1% (MHRD trend data) of the GDP expenditure on Education in 1952 to a little over 4% (ABE; MHRD 2015) of the GDP in recent times. However, this continues to fluctuate every year and grossly inadequate even at its' best allocation so far.

TE in the Twelfth Plan

In March, 2012, the Central Government approved revision of the Teacher Education Scheme for the 12th Plan. The plan has recommended a huge change in the teacher education scheme with an increased budget from 350 crores per year in the 11th plan to 1400 crores per year. The scheme is an institutional one – allocations for SCERTs, DIETs, CTEs, IASEs & a new institution called BITEs (Block Institutes of Teacher Education) with focus on access, quality and an expanded role for all these institutions (e.g. DIETs will also start working in the secondary area), creating a cadre of teacher educators, preparation & professional development of teachers/teacher educators, integration of technology & synergies/linkages across these institutions.

It is important that this is further considerably enhanced, given the demands that currently exist in the domain of TE. The demand on TE is not only with regard to producing the required number of teachers to meet the RTE norms on PTR at the elementary level and to fill the gap in the secondary school level, but it is also about enhancing the

quality of teachers and teacher educators. These not only require an expansion of capacity (both infrastructure as well as human resource) in existing TEIs, but also require establishment of Schools of Education across the country and move TE into the realm of Higher Education and bring it under Universities. This would entail substantial increase in the expenditure on Higher Education (HE) as well.

TE funding in recent years (MHRD, 2012)

(i) The annual TE budget since the last few years of the XI Five Year Plan (2010-11) has been Rs. 500 crores (Rs. 146.07 crores of the Rs. 500 crores was released up to 8 January 2012; and an outlay of Rs.500 crores has been proposed for the year 2013-14) (ii) In the earlier scheme the SCERT received Rupees 2 Cr for an entire plan period covering all components of expenditure, which in the proposed scheme is the amount currently provided only for infrastructure improvement (iii) Similarly, allocations have been well thought out for the other institutions as well

Importance of setting up Schools of Education

Setting up Schools of Education in Universities is a key solution that the Central Government will have to plan and execute to help create professionals who will be available to the education domain. Given the scale of requirement, there is a need to establish at-least one School of Education per state – and more than one for larger states. The goal must be to increase the number of graduating specialists to anywhere between 5000-10000 professionals. This is a long term project, with the requirement of certain serious financial commitment.

However, if we are serious about our systemic reforms, there is no more dithering that can continue in this matter. The key reform idea is:

- *Concomitant with the enhancement of budgets, it is also critical to ensure that these additional funds are meaningfully utilised and leakages are plugged at the source.*

The need for re-building TE system from scratch

To tackle the dire situation we are in, there is a need to improve urgently and drastically all aspects of teacher development and management that are currently in place. JVC recommendations and the NCFTE, 2009 guidelines are crucial to this improvement plan that needs to be implemented

at the earliest in their entirety. These guidelines largely advocate for a long duration pre-service teacher education program, reorganisation of curriculum to develop true professionals, integration with other disciplines/departments of the academic institutions, and an increased use of ICT. To strengthen it further, linking teacher education institutions with one-another, their grading on regular basis, and arrangement of a strong regulatory mechanism for these institutions are also suggested.

And finally, there is an urgent need to create a National Vision for Teacher Education in alignment with RtE, NCFTE 2009 and the 12th Plan Guidelines. The crucial aspect is that whatever is done should be an integrated plan for all sections of the education system. Such an integrated approach should fix the problems of the past — the gap between policies and their implementation. Last but not least, professionalizing teacher education and teacher management require deep cultural changes in the system, which are built on a foundation of integrity, of enablement and decentralisation, moving away from the decades old culture of rigidity, control and lip-service to good education.

References:

Government Notifications / Reports / Websites

Planning & Monitoring Unit; MHRD. Analysis of budgeted expenditure on education 2011-12 to 2013-14, MHRD, New Delhi, 2015

Joint Review Missions (JRM), MHRD, 2015

www.teindia.nic.in/jrm.aspx/mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/JRM

National Council for Teacher Education (NCTE) ACT, 2014

www.ncte-india.org

ncte-india.org/ncte_new/?page_id=910

NCTE at a glance; Objectives / Functions of the Council

http://ncte-india.org/ncte_new/?page_id=782

http://ncte-india.org/ncte_new/?page_id=782

Justice Verma Commission (JVC) recommendations, MHRD, 2012

mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/JVC%20Vol%201.pdf

Articles / Research Reports

Comments and Suggestions to inputs on the draft New Education Policy, Azim Premji Foundation, August 2016

Ramachandran, et al. *Teachers in the Indian Education System: How we manage the teacher work force in India*, NUEPA, December 2015

Minni, Puja; Jha, Jyotsna. *National Study on Working Conditions of Teachers: Karnataka State Report*, Centre for Budget and Policy Studies (CBPS), Bangalore, February 2015

Knowledge resource Centre. *Changes in the educational Budget of Central Government*, Azim Premji Foundation, June 2015

Behar, Anurag. *Education agenda for the new Government*, The Mint, March 2014

Behar, Anurag. India needs a new teacher education system, The Mint, July 2014

Azim Premji Foundation. *Teacher and Teacher Education in India – A Position Paper*, 2014

Rishikesh, *Teacher Salaries in India*, Azim Premji Foundation, August 2010

Rishikesh, *District Institutes of Education and Training – A Status Report*, Azim Premji Foundation, June 2010

Surya, Vasantha. *An interview with Prof Krishna Kumar titled 'Teaching profession is in a crisis'*. Frontline, volume 25 - issue 05, March 2008

Kumar, Krishna. *The Child's Language And The Teacher - A Handbook*, United Nations Children's Fund, 1986

Rishikesh is an Assistant Professor at the School of Policy & Governance, Azim Premji University; he also leads the Hub for Education, Law & Policy located at the University. His research interests are in the domains of educational assessments and teacher education and is deeply engaged with current matters related to educational policy. He may be contacted at rishikesh@apu.edu.in



On Good Teachers and Learning

Krishna Haresh

Setting the context

For better or for worse, we have school systems in place now in human societies. Whatever kind of school, mainstream or alternative (minus some forms of home-schooling), children go away from home and parents to another group of adults called teachers, to engage in the activity called education. Education in schools is a specific kind of an activity with more or less clear goals. Schools have taken on a big part of this project of learning as their business (in the occupational sense and the economic sense). Schools hope to prepare individuals for a future vocation.

It is not just a norm to go to school: it is normative unless you absolutely cannot afford it. For most parents who can, education is clearly necessary for their children for their intellectual growth, vocational placement, upward social mobility and a host of other similar-yet-different reasons. A few may look upon education as a spiritual movement towards nurturing a humane being.

On the whole, schools are looked upon as preparation for life and schooling seems to tie into the need for a secure future (either in the form of a passionate occupation or a progressive pay-scale), or for self-actualisation. Students' goals for their own education are driven not just by parental aspirations (as well as some of their own), but are also conditioned by the demands of a society, locatable in the preoccupations of a particular social milieu. School systems are not independent, disconnected players on this wide field. They often promise to enable or guide individual students in specific ways, in ways that neatly supply to the demands of an existing society, or a new and enhanced society-to-be.

Teacher as an individual

Now we can talk about a teacher. Unfortunately, a teacher often ends up becoming just one element of this school system, a cog in the machinery to use the cliché, put in place and pace to maintain the set momentum towards future successes and perpetuate the established tradition of vocational and academic training.

However, in my opinion, teachers do not belong to anybody or anywhere. They are neither representatives of particular institutions called schools, nor are they agents of a society that has employed them to mould young minds to serve its own demands. They are independent inquirers who engage with the process of learning. They are not propagandists of particular ideologies, they are reflective critics of all ideology. They are not exemplars from an adult world, but are adults stepping out of that world to look back and comment on a society that many adults have created impulsively and often times, compulsively.

An individual teacher seems to have the capacity to make an impact on students and their learning rather directly and forcefully. Often, many good ones in our lives leave behind deeper lessons for long-term contemplation. As I recall attributes of good teachers in my life, I see what makes them so. Based on their students' responses and needs, they seem to be unconditionally loving, yet conditionally reprimanding, open-minded individuals. They are knowledgeable yet willing to learn, well-prepared for their classes while being flexible and spontaneous. They show high energy in interactions, high initiative in organising learning material. They are non-formal in their interactions, attentive, making themselves approachable and responsive. They are firm yet compassionate, and emanate a deep sense of responsibility to something that is far greater than the students and the classroom, and, over time, they also show themselves up in our minds as similar-to-oneself, fallible human-beings. Often these teachers are not conscious of their own goodness, and this makes them humble. And very admirable.

Teaching as a vocation

A colleague recently shared an article about teaching and teacher training from The Economist. It seems what matters most to many parents, like classroom sizes, streamlining by ability etc., has almost no bearing on a student's successful experience of learning. The latter seems to be most influenced by teacher expertise, what the teacher actually does in the classroom with all students

concerned*. This finding may not be surprising, but is indeed useful, considering the huge number of studies that were used to arrive at this which establishes that the teacher seems surely to be the primary agent of influence and change in a vast system of education.

Further, the article suggests, good teaching is often believed to be an innate artistic talent that individual teachers are born with. While this may be so in rare cases, it is clear that classroom teaching is mostly a sophisticated, skilful craft that people can learn about. The skills may be learned, honed in on, techniques understood well and executed effectively.

This kind of teaching practice, as understood and explained by behavioural science, can be learnt, for example, in the domain of Educational Psychology. Classical and contemporary research in the subject has enough information to give us ideas for a lifetime about classroom education. The research is full of useful theories and models: about teachers and students as people with teaching styles, learning styles and personality styles; about children's developmental milestones in cognition and moral development; about ideas useful to educational institutions for organising their space for effectiveness; about inclusive education for special learning needs and so on.

One cannot ignore insights this domain offers. Learning about effective teaching practices can only enhance the learning experience of individuals.

Good teaching and a good teacher

Added to learning about effective teaching techniques, which one must surely periodically do and redo from, I think one needs to be interested in understanding the very culture of teaching and learning one is contributing towards creating. I would like to briefly discuss a few questions that have the potential to do this and even alter the ethos of a classroom and school. These questions have inspired (and even haunted) me in my journey of teaching. These hope to elicit reflection from which diverse actions may emerge, rather than simply suggest directives for specific action in daily practice.

A preliminary point: while it is important to acknowledge a good teacher, I feel we must explore good teaching rather than dwell on identifying individuals as good teachers. Teaching and learning is what is important, what is at the core of the

educational process. Evaluating a teacher as good or bad focuses too much on the person and their particular ability. The evaluation of a person in a role has beneath it a particular belief, about a well-defined, more-or-less stable identity or personhood with unchanging abilities. This we need to be skeptical about.

These reflections are not my own and are inspired by many thinkers. I would like to take up questions by one such speaker and thinker from the last century, namely, J Krishnamurthi, well-known for his dialogues on life and education. Keeping these questions alive to inform the process of teaching and learning may be looked upon as what makes a good teacher.

What does it mean to have the right relationship?

Relationship seems to be at the heart of learning, at least in a school. Not just an honest, broad-minded relationship between students and teachers, but also between colleagues, between teachers and parents. This would mean neither competing for importance with another as an adult, nor comparing oneself in terms of ability and prominence in the process of education.

In the same vein, would it be possible to see students for what they are? Seeing an individual's experience of learning for what it is, without relativism? Can a teacher become aware of one's own need to receive student approval and admiration? And find a place of relationship which is wholly and deeply responsible, observing self-interest and personal ambition as they arise?

How may we explore order in the classroom?

Exerting control in the classroom has become the hallmark of a good teacher! Eliciting obedience and establishing order gives one a deep sense of fulfilment it seems. I am not proposing that a chaotic, disruptive classroom means anything better. However, it may be necessary to refrain from battling the need in oneself for control over students and the situation. One must find a way to allow for the process of learning to unfold, without asserting authority of personal knowledge or experience. These two will gather rightful regard in the light of an affectionate relationship. While being unsure of content or being incompetent in dealing with students in a classroom or subject matter leads to confusion, the opposite does not guarantee effective learning! Classroom discipline is not about regimentation of student behaviour

but encouraging the curiosity to learn. This cannot come about in oppressive teacher-student relationships.

What does fear and resistance do to learning?

Schools have become a lot about performance. Often, finding a good school has become a proof of good parenting for the parents! Learning cannot be all about this. Evaluating and assessing performance are tools to understand skill development in students. Judging one's learning constantly using these tools, looking upon learning as purely accumulative and performative, can only cause nervousness and anxiety in both the teacher and the student. These tools can't occupy the whole process of learning! Classrooms and relationships in schools often instil fear of a subject and performance. Can we understand how this fear of performing has become an impediment? Not just understanding the fear of performance in a subject or in a relationship, but observing to learn about fear itself? Learning is an emotional experience more than we care to admit. Understanding this may offer the clue to solving the problem of resistance to work too. Then no other extrinsic motivation may be necessary.

How shall we understand motivation?

We, as adults, seem to perpetuate various forms of violence in our lives. The tendency to resort to rewards and punishments while addressing the problems of learning is one such. It is possible to observe directly the violence of this system of motivation. It is quickly obvious why punishment is violent, but it may not be clear why rewards are. Picking out expected behaviours and rewarding them, associating rewards to conforming behaviour reduces students to Pavlovian dogs in my opinion! Affectionate and sincere encouragement, effective praise, reasonable reprimand are not what I am referring to here.

A simplistic system of rewarding and punishing tends to encourage conformity, mindless obedience to authority and quell creativity. Surely, we can learn Math and English literature, and learn about the violence that goes into manipulating another to learn about Math and English literature too!

The four questions above seem to have direct relevance to a teacher while engaging with a learning space. Now on to some more seemingly complex questions that I feel a teacher cannot afford to ignore for long in the business of teaching.

What is the role of conditioning?

It is important to realise that our motivations and fears in life are not ours alone. They are shared in our consciousness as a society, conditioned meticulously and systematically over generations. Would it be possible to see this? That "we are the world" (in Krishnamurti's words, not Michael Jackson's!). We are conditioned to feel in particular ways: fear of failure, the future, of authority etc. Our feelings may tell us more about how we think rather than the true nature of the world? Maybe observing the dynamics of this conditioning within us, is to be free of its overwhelming grip?

How may we go to the root of something and being free of it?

Some questions may open up the way we think about the human brain. We often imply that the brain needs to be woken up from some sort of a stupor to learn, that we need to develop techniques for attention or else, we are lost in the vortex of inattention. But what if the human brain is ever-prepared to learn? What if the impediments to learning are strong feelings of personal experience and threats to this system that our thoughts are constantly generating? What if observing this arising inattention is 'paying' attention? How can we peer into and play with this proposition, together as teachers and students?

What is the nature of our experiences and who is the experienter?

This question does not exactly sound like a question that teachers and students need to take up. Maybe monks, nuns or ascetics, and even adults, but not students it seems! However, education seems to hold the possibility of engaging with these questions. These questions are important because our 'self' is the lens through which our experience of the world is processed. And we seem to understand so little about these experiences as we don't learn enough about the lens itself! A good teaching process (via the medium of a good catalyst, the teacher) definitely raises our curiosity about what is being learnt and how to learn it better. More importantly, it seems extremely necessary to observe who is learning too. To observe the contours of the narrative of an autobiographical self, the self that constantly, determines one's role or behaviour in relationship to another. The self that repeatedly shows up as a performer, be it teacher or student or parent or whoever else.

What is the nature of the mind of this personal self, and the factoids we gather along the way as truths about ourselves and the world? We could simply talk with students about all this. This may open up a contemplation that impacts all learning along one's life beginning at school.

Good education

We often cross paths with good teachers in the classroom and along life's amble from here to there. Good teaching via a good teacher ignites sparks, births an inquiring mind, makes good education possible. An education that is not only confined to domain knowledge of specific subjects. An education that keeps alive constant observation and listening to the world within and outside.

References:

- * From the article titled **Teaching the teachers**, in the Education Reform section of The Economist online, published on June 11th 2016.
'In a study updated last year, John Hattie of the University of Melbourne crunched the results of more than 65,000 research papers on the effects of hundreds of interventions on the learning of 250m pupils. He found that aspects of schools that parents care about a lot, such as class sizes, uniforms and streaming by ability, make little or no difference to whether children learn...What matters is "teacher expertise". All of the 20 most powerful ways to improve school-time learning identified by the study depended on what a teacher did in the classroom.'
- ** **A Flame of Learning: Krishnamurti with Teachers**, published by the Krishnamurti Foundation of India, 2005.



Teachers working together – WORKS!

Umashanker Periodi



All these years was a struggle to find out if there is a pattern of what goes in to making a good school. I want to share here how the process unfolded itself from trying to find out elements or a pattern that make a good school, to understanding that there cannot be a single reason or element that makes a good school to slowly being able to get some, very minimal understanding I should confess, of two elements that emerge from the schools we have been engaged for more than a decade. Not a new thing for the field of education, but for us it has been a hard earned learning. The importance of teachers working as a team and a democratic leadership.

In 2003 I came to this field of formal Education. Till then, my experience had been largely in Non-formal education, especially in Adult Education. In Foundation too, we had just started working and were looking for means and methods of effective processes to bring about the change. We were meeting a lot of people and experts of this field to find out what is the best way to work for quality education in schools. We were consulting experts and getting involved in Studies to understand this area. We approached Prof. Jalaluddin (leading NEEV, Network of Enterprising Educational Ventures. Director NCERT in 90s,) to conduct a study for us to find out what makes a good school. The professor shocked us by saying “you will not find a single element that is responsible in making a school good, nor is there a pattern that will emerge of good schools. Different elements help in making a good school and in different schools it would be different, there is no single answer to this question - what goes to the making of a good school? No point in finding out, get engaged.”

True, this did not give us an answer, but, it gave us a direction. We started getting involved in the schools, classroom processes and mainly with teachers and functionaries. Our work more and more focused on teacher professional development. Building the capacity of the teachers became the nucleus of our work. In the course of our work, we saw all types of schools- the good, and the not so good. But, teachers gave us hope. We saw teachers in remote

areas, in bare minimum running good schools where children had achieved good learning levels. We saw schools far from the highways and motorable roads very punctual and vibrant, involving the children in a lot of academic activities. We saw teachers turning hostile community to school friendly partners in running the school. There was a young teacher in Surpur who was able to take on the powerful feudal landlord belonging to the royal family and fight for a piece for land for the sanctioned school. This I feel was a great courage on part of the teacher and with support from others was successful in getting the land for the school.

There were a lot of schools doing academically very well. There were teachers like Rekha who single handedly taught 5 classes and the learning of the children is good. These were very confident and independent children. There were teachers who took remedial teaching very seriously and did that with commitment benefiting the out of school children. There are teachers giving extra time to help these children cope with the learning. There are various teachers who have built good relationship with the community members, old students and involved them in them in teaching and engaging with students. It is these teachers who give us a hope. Hope to work and hope that the system will change for better. We were convinced that in the system, there are good committed people who are creative and solve their problems and move forward with the children.

In these 13 years I have seen various types of good schools in 6 states where we are working. As professor Jalaluddin has said it is not one but various things that make the schools, good schools. But, as I look back at these schools a common pattern emerges. Two things stand out in all these good schools. One, the teachers working together as a team and the other a democratic leadership.

A good and healthy relationship is the base on which the teachers team is built. One thing that strikes anybody who enters these good schools is the teacher’s team. They have a very good relationship amongst themselves. Though they

say “it just happens that people are good.” when you ask about the good relationship, it is not true. It takes a lot of effort in building this relationship. They take time to communicate and understand. When the other is in trouble and need support they go out of their way to help and support. We do see that they put in a lot of effort in to this and this is consistent. As one of the teacher was saying, it needs a lot of effort and time in the beginning, but, later you have to just keep it going. But, you cannot neglect. Later it becomes smooth and way of life and you feel terrible when it is missing.

Working together in team is the key. The sight in these schools is of all the teachers involved and working. It could be anything you see teachers together doing it. The assembly, the mid-day meals or dealing with the community or dealing with the officers, any events the teachers are together. In these schools like in Sharana Sirasagi Thanda school in Kalburgi, the teacher team is a bundle of vibrant and jovial teachers. We all know that in school this does not happen easily. This needs a lot of preparation. The teachers as a team speak amongst themselves. If it is about the event who does what and also sees that it does not end up being a burden for one or two. In this way it looks seamless but, a lot of background work goes in to it to make it a team effort.

Time and space for meetings is important for the team to get built. Structured time for a formal meeting is something that we see in most of these good schools. In spite of an informal atmosphere the teacher meetings are very structured with specific agenda. There are different possibilities. Many of these schools have it on Saturdays immediately after school hours. But I saw few schools having it either just before school starts or as soon as they finish school in the evening. These daily meetings are just 15 to 30 minutes meetings. But, the teachers say that it helps them a lot. In schools such as the Naganahalli in Kalaburagi, the team uses their lunch time for an elaborate chat around academics and different children. Especially children with concern. They make it a point to see that all the teachers are there and all participate. Interesting to note, is that these teachers in these meeting speak about subject, their plan and also about dealing and engaging with difficult children. (Similar efforts in Kashibai school in Gaddada Narayana Tanda in Surpur, Yadgir)

There are a number of small things that go to building a team. Spending time outside schools is also very important. Could be just meeting in another teacher’s house for a tea or an exposure visit to some place. Could be anything but, that helps. But, the most important thing the teachers identify is that there should be learning and growth in the team. Sharing what you know, and getting to know from others is something that happens subtly. I have not seen teachers taking up a paper on a subject, read and discuss. But, a lot of discussion happens on what is written in the newspaper on Education and allied topics. They share the books they have read. More important is they encourage each other to write to newspapers, magazines. It is true that they do not work on preparing papers and discussion on published papers in journals. They do not reflect on some other papers. But the discussion is not personal. It is on education and around child’s development.

The teachers working as a team is very important. But, that does not happen just like that. These processes has to be led by a leader. A leader of high quality. A leader with vision. A leader with values and leader who believes in team work. Invariably we find good leaders in these good schools. Here we see a pattern of leadership in these schools. I will take a head teacher Sri Sharanabasappa Nasi,(Head teacher Anapur school, Yadgir) whom I know from my Surpur days (from 2007) to see how a principal of a good school performs.

Nasi is a person with vision. Anywhere he goes he starts dreaming of making that a better place. We saw him as a head teacher, a Cluster Resource Person and then once again a head teacher. It could be anything. He constantly thinks of what should this be developed in to. His vision he shares with his colleagues. He takes a lot of time to convince his staff members, assistant teachers. He shares that he works on the vision development person by person. There are times when his friends or other teachers of the team tell him why he is wasting a lot of energy on one particular teacher. But, Nasi is adamant. He says in a team to develop a common understanding you will have to invest on each teacher. The strength of the chain is as good as its weakest link. Some understand soon and some take a lot of time but, as leaders we have to work on each person. He says once, this is done then developing a team with shared understanding and

vision is easy. He says the team understanding is not static. It is very dynamic, you cannot stop the process of constant communication. Clarity and excitement about the vision is very important for any team to move forward. A leader needs to have a vision, but for a good leader, that vision should be the vision of the team. And the skill is in developing, rather evolving this vision with the team. Nasi does this very skillfully in all the situations and has been successful till now.

Planning is the strength of Nasi and a lot of head teachers like him for this. They can plan what they have visualized very concretely. Nasi's team members say that Nasi can work to design a very detailed plan which is practical and challenging. It appears that Nasi has a good hold over working the details to its last step. Nasi always works the plans with his team.

Nasi contributes. When I ask him how is it that he can contribute. He replies "I am not so intelligent. I am a hard worker that's all. I prepare. I read, speak to people who know and prepare myself." He is a regular visitor to Teacher Learning Centre and District Institute. He will meet people speak to them and read. He reads and the best part is that he makes it a point to discuss what he has read with others. He participates in training programs and encourages his teachers to participate. He takes classes. He has a regular class and he substitutes whenever teachers are absent. This has built respect for him amongst his team mates. This is also leading by example. He reads books. He has a habit of sharing the content with his team members. This has slowly led to his other team members reading books and sharing it with the other members.

Nasi is a democratic person. He consults his team members on everything, big or small mundane and important. The meetings are open and transparent. What is most striking thing about Nasi's leadership? His teachers say that he provides academic leadership. They say whatever Nasi does, his focus is on Academics. How to provide good education to children. How to make the learning interesting and challenging for children? How to create a better learning atmosphere for children. How to create a process of continuing education and development for teachers? This is what makes Nasi's school a good school, a performing school. There is no rote learning here. Both the children and teachers are a happy lot without any fear why children even we like being in Nasi's school.

The report of the case studies done in 2006, of the 3 time winners (15 schools), in Learning Guarantee program also came up with conclusion similar to this. The winning schools had a few things common, like a committed head teacher, teachers having cordial relationship amongst themselves and with the community. Now, when we look at the schools across North East Karnataka, we find many good performing schools. When we look very closely in to these schools to find out what is making these schools tick, these two elements stand out. One, the teachers are working as a team and two, there is a good democratic leader who makes academic work at the nucleus of the process and take this team to a level of working together and enjoying it. Keeping these aspects in mind, we have not forgotten Prof. Jalaluddin's words "what goes to the making of a good school? No point in finding out, get engaged."

Umashanker is Head, Karnataka State, Azim Premji Foundation. He has over thirty years' experience in the development sector. He has contributed extensively to the National Literacy Campaign as well as towards tribal education in BR Hills, Karnataka. He has been training grass root level field workers and primary school teachers in, what he calls, Barefoot Research. He is also the Founder-Member of Karnataka State Trainers' Collective. He may be contacted at periodi@azimpremjifoundation.org

The Teacher and the Government

Rashmi Shukla Sharma



When we think about the teacher, images of students, classrooms and schools spring up in the mind. We talk about the number of students the teacher teaches, the furniture and teaching aids in the classroom, the type of school, small or large, and the like. These we understand as the context in which the teacher works, and we are aware that the context influences the manner in which the teacher teaches. We are also aware that the curriculum, the textbooks, the pupil evaluation system, the teacher's training as well as the background of the students have a profound influence on the teacher's approach and conduct of the teaching-learning process.

Less often do we think about government, and the manner in which it affects the teacher. We are aware that the government sets the frame in which the teaching-learning process takes place by formulating the curriculum and textbooks, training teachers, laying down the pupil evaluation system etc. These policies clearly have an impact on the teacher, and there are often debates about them among educationists, teachers and people in general. The government also plays a key role in setting the service and working conditions of teachers. Most teachers are government servants, or in some cases, Panchayat employees (Panchayats, as per our constitution, are 'institutions of local government'). The government determines the salary, tenure and other working conditions of teachers. But much less obvious is the fact that teachers are deeply influenced by the way the government itself functions. Teachers work in the organizational ethos and practices within government. The government supervises and supports teachers in various ways and provides several positive as well as negative incentives and signals. These organizational culture and practices within government have a deep influence on the teacher, and consequently, the classroom. Therefore, it is worthwhile, while trying to understand the teacher, to also understand the working of government.

The Indian constitution provides the legal framework in which the government functions. Our constitution clearly supports social equality.

The constitution does not allow discrimination on the basis of caste, community, gender etc. School education, as part of this endeavor, is sought to be made universal. The constitution mandates elementary education as a fundamental right, and each child in the country is entitled to elementary education. And in fact, the spread of government schools since Independence, and the recruitment of a large number of teachers, reflect this constitutional imperative. In this sense, teachers are critical actors for achieving the social goals of our constitution. Our constitution also mandates positive discrimination in favour of underprivileged groups, especially Scheduled Castes (SC) and Scheduled Tribes (ST). This is reflected in reservations in jobs for teachers, as well as special benefits such as scholarships for SC and ST students.

Further, the constitution lays down the broad structure of government, defining the powers of the union government and the state governments. 'Education' is a matter to be dealt by both. Both tiers of governments play a role, with the union government addressing the broader policy issues, and the state governments taking responsibility for more detailed policy and the general administration of schools. For example, while the union government has legislated the 'Right to Education (RtE) Act', the state governments have made the rules and are responsible for implementing it. The union government takes up programmes such as the Sarva Shiksha Abhiyan, which provide funds to support school education, but the administration of schools, including salaries, working conditions, training and supervision, is with the state governments. Consequently, the infrastructure, pedagogic practices and quality of schools vary across states. The constitution leaves it to the state governments to devolve powers to Panchayats, and across States, we see that the role of Panchayats vis-à-vis schools varies. In several, but not all states, Panchayats appoint teachers.

The overall thrust of the union government has some impact on teachers, but teachers are affected to a much greater degree by the functioning

of state governments. Teachers in government schools are usually state government employees, or Panchayat employees. Only in schools run by the union government, such as central schools and Navoday Vidyalayas, are they employees of the union government. The curricula and textbooks are prepared by the state government, and supervisors and teacher trainers are also state government employees. Because of this, the type of education provided in our schools, teachers' salaries, working conditions etc. vary from state to state.

While school education in India is situated in the constitutional framework outlined above, the constitution alone does not determine the type of government that we have. For example, the constitution promotes social equality and makes special provisions for marginalized groups. This explains the expansion of the outreach of the schools, but it does not explain how these schools function, the types of text books prepared, the kind of teacher training given. These are influenced by the type of government in existence, and the policies followed by it. In turn, the type of government in existence also depends on the political scenario, the bureaucracy, and the processes followed within government.

The Indian democracy, the largest in the world, has been a source of fascination for political scientists, as sustained democracy is rare in the context of low socio-economic development and a high degree of poverty. We can take justified pride in our democracy, but we also need to recognize that the shape that it has taken is very different from the older democracies in developed countries. Our politics has two mutually opposing trends. On the one hand, politicians can only hope to win elections if they are responsive to the needs of citizens. This has often led to energetic action, such as the expansion of the school system, as well as initiatives such as the provision of free textbooks, midday meals, scholarships etc. to students. But our politics also throws up a great deal of corruption and authoritarianism. Citizens in India may vote governments out, but on a day-to-day basis, they face a high degree of corruption and a non-democratic style of functioning.

All government servants in India, including teachers, are affected by this political dynamic. On the one hand, they implement several pro-poor policies, but on the other, they do so in an organizational culture that does not recognize and incentivize

good work or encourage initiative, so that the actual implementation of the policies is unsatisfactory. Teachers who are politically connected may get a posting of their choice and may teach badly, or not at all, with few consequences. In contrast, teachers who are committed to their work may get little recognition within the system, and may even face difficulties, such as continuous postings in difficult areas. This creates an organizational culture where work is devalued, and affects all the people in the government, including teachers, whittling away at their motivation.

The character of the bureaucracy in India too has important repercussions. Our bureaucracy is not adequately professionalized. For example, school supervisors and teacher trainers often do not have adequate pre-service or in-service training for their work. Moreover, a person may hold a certain post, not because he or she is the best possible professional available for it, but because he or she has a particular patron, or has paid money to be given a certain post. As a consequence, we do not have the best possible supervisors and teacher trainers. In addition, once a person gets a post because of patronage or payment of money, their motivation to actually work is quite low. This means that supervisors and trainers are not able to provide a supportive atmosphere to teachers, and this in turn, has negative consequences for the motivation and the morale of all teachers.

The Indian economy has grown rapidly since the mid-1990s, because of which government revenues have grown, and the government now has much more money than it did in the 1950s and the 60s. Because of this, the government has been able to expand the school system substantially as per the constitutional mandate. But, as several political scientists have documented, the influence of patronage and money power in government has also grown in the last three decades. Ironically, after Independence, India began with a low resource base, but a better functioning government. At this time, government schools functioned somewhat better than they do today, but there were far fewer of them. Teachers were far fewer, but those that were there took their responsibilities far more seriously. As the money available with government grew, the functioning of government deteriorated, with the result that we have many more schools, but they function less well.

Another important point that needs to be noted is that, since the 1980s, across the world, there has been serious rethinking about public administration, and 'New Public Management' (NPM) has emerged as a paradigm whereby, rather than having permanent government employees, the tendency has been to hire people on contract, and to outsource work. We can see the impact of this thinking in the large scale hiring of para teachers in several states. While at Independence, the need to expand the size of government and a permanent bureaucracy were accepted widely, since the 1990s, these have been questioned. This has radically altered the working conditions, and consequently, the working style, of teachers in India. Notably, while NPM took root in developed countries in the context of mature democracies,

its dynamics in our newer democracy have been different: we need to examine whether it has exacerbated the play of patronage and corruption in the working conditions of teachers.

To sum up, teachers and their work are situated in the context of our government, as shaped by our constitution, polity, and bureaucracy. As the nature of government changes, a parallel impact on teachers is visible. To understand the teacher, we must not only understand educational policies and practices, but also government itself. Some salient points about government have been highlighted above, but a really detailed understanding of government is needed to fully understand and support the teacher.

Rashmi is an Indian Administrative Service officer of the 1984 batch, allotted to Madhya Pradesh cadre. She has worked at various posts in the Central and State Government, and has spent many years working in School Education and in Panchayati Raj. She has written two books, 'Local Government in India: Policy and Practice' and 'The Elementary Education System in India' (co-edited with Vimala Ramchandran), as well as several articles on education and local government. She may be contacted at rashmishuklasharma@gmail.com



Pre- service teacher preparation - curriculum, practice and reality

Hridaykant Dewan

The teacher has become crucial to strengthening of the educational process and development. There has been ample research to show that the nature, motivation and the capability of the teacher to engage and involve children is critical to learning. Their being key to education requires emphasis on their preparation, further disposition and constant learning with experience and self correction based on the exposure and opportunities available. It is in this context that we will explore pre-service teacher preparation. We will begin by looking at and analysing the structure and organisation of teacher preparation and then go on to look at the critical elements and challenges as well the possible content and broad mechanisms for it.

Teacher preparation is multi-faceted, here we will hint at some and raise currently relevant and crucial concerns. Recent decades have seen many missions to retrain teachers due to two-pronged reasons. One the thought that teachers need to be able to refresh themselves, share experiences and learn: the other is that ideas that they learnt during pre-service are not current and hence they need to be exposed to newer principles and ideas. Both are valid and also pose important questions about pre service preparation. One important question is the currentness of the programs today and the other about the period, manner and of pacing of teacher preparation. We will first look at the second question and that is about the period, timing, pacing and location of the preparation programmes.

What should be the structure of teacher preparation?

The time and organisation of the program can be divided in three strategic ways. One is doing almost all of it before becoming a teacher and starting only when certified to be able to do so. The major messages of this are select the person properly and then 'prepare' and fully equip her and give the license for her to teach. This front loaded program is what we use in India today and the recent decisions are towards further increasing this front loading.

The second is to virtually no initial preparation and throwing the would be teacher in to the school

after a short crisp induction and then working with her as a part of a small group of trainees with a coach or a mentor or other mechanisms of periodic interaction largely in the school. The interactions may include various tasks and reflections that the student teacher undertakes shares and reports on. This could continue for some years after the teacher is posted to a school and may slowly become less frequent and of shorter duration. The idea being that it gives a greater opportunity for the teacher to share and learn from those who are struggling like her and also get opportunities to repeatedly reflect on what she has been doing along with others.

The third would be a blend of these in various proportions. This would emphasise that pre-service needs to be supplemented by other ways for preparing teachers. So you would have a longish pre-service program followed by internship in a school and then back again for interaction and some more courses. Besides this she maybe offered a basket of courses that she may choose to take of her own volition and from the course she chooses.

The second has a large component of time in the school and classroom for the student-teacher. It is not that the first has no school experience but it is lesser and also with a different purpose and process. The models pose the question whether a long period of initial teacher preparation is better and necessary or her development in to a teacher is much more a continuously reflective process? Should we have a small initial institution based interaction and then leave almost the entire time as attached to one school with intermittent interactions. What should be the main purpose and nature of the school experience or immersion or whatever else we call it?

Can pre-service teacher preparation stand on its own?

There has been considerable discussion and research on all this and there is much criticism of the 'front loaded program'. With the process essentially prior to certification with nothing after that period leaves the teacher with no reflective opportunity after experience of teaching. Experience has shown that such current program do not stand on their

own and fail the purpose. It has been argued that without adequate experience of classroom and teaching the lectures or the reading materials do not make sense to student-teachers, while others argue that it is the quality and nature of content that is at fault. It is also said that school experience is not the way it should be and its linkage with the lectures is not proper. What everyone agrees is teachers need to share and reflect on their experiences and buffer their reflection with reading or engaging otherwise with theoretical ideas as well. The need for refreshing periodic interaction is also recognised thus the need for comprehensive teacher preparation, assessment, certification and continued learning (if needed assessment, re certification).

Another axis for categorising teacher preparation programs may be on balancing classroom experience and conceptual thinking and engaging in questions often described as theoretical.

School experience and teacher preparation:

The increased emphasis on school experience is welcome, there is also some new ideas about this being voiced. Some of these are meaningful others contrary to many principles including of success possibility. What for example is good is the recognition that teacher must become more embedded in the school and make teaching a profession and hence increase exposure to real situations as in medical colleges. This sounds very persuasive but is fraught with dangers and implementation impossibilities due to the nature of the task and perhaps does not even go as far as a reasonable simile. There have been efforts to think of ways for more exposure in schools and shifting a larger part of the training to the school itself. The experiments with in service trainings have also thrown up many models of this kind for pre service but none of them has been fully developed or tried out. The bottle-necks are in the numbers of student-teachers and good mentors. Suffice to say the period of internship in the new teacher training pre service programs been made longer and also redefined in words. This is forced by discussions on teacher preparation, but the design leaves out the essential spirit of the arguments.

The role and responsibility while on practice in school, based on what she is expected to learn has not been thought through. This has a major impact on the way the program is structured and the relationship it has with the school. It also has

implications for the DIET, teachers colleges and other institutions' relationship with the schools and the knowledge hierarchy dominance that is so pervasive. It is to be expected that the period of school internship is for the teacher-student as well as her college to learn from the school situation and absorb the experience but instead the attitude with which the faculty and even the students go to the school is of telling the teachers what to do and trying on what they think is already known and correct. The hierarchy of knowledge makes the school experience both pre-determined and mechanical with very little benefit to either the school or the college. There is no attempt by the student teachers or the faculty to understand the difficulty of the school and help them with it. The dialogic relationship between the institutions is conspicuously absent.

In principle the increased school exposure and observing children and teachers in a school can be good. The concern is how do we get enough schools and have the schools to agree to this host of students descending upon them at arbitrary times and all of them wanting to be in the school and the classrooms at the same time as per the common dictated calendar. It is however, not clear why the calendar has to be commonly directed so that all student-teachers reach the schools in the same period. The preparation of the mentor teachers and the head teachers is almost if not totally absent and most of the time there is no interaction with them prior to deciding dates and areas they need to get student-teachers in.

The problem of school availability and the usefulness of the exercise for the school are linked but not entirely overlapping. In spite of the fact that the schools may not find these useful they are willing to stretch and allow the would be teacher-students but the sheer number of colleges and hence of those needed to be placed in the urban classes defeats their best intent.

Constructing the elements of the curriculum:

The elements of what may be considered to be important for the pre service preparation must perhaps include some essentials whatever be the period and way of structuring. This requires delineation of the preparation and capability a teacher needs for the classroom. These elements remain essentially the same at all levels of school education but their proportion and nature changes for different classes. We shall first look at the

characteristic elements and then think about their practice.

The most important requirement is that the teacher understands and respects the students; in terms of their background, aspirations, beliefs, culture and dispositions, know their language and use it and have respect for them and their community knowledge. To recognise their role models and help them create more.

That naturally means understanding the role and meaning of education in their lives. Also understand what it means to all of us and to some extent its role in a democratic human society. Realising the commitment in the preamble of the Constitution in Indian context and hence attempting to include these in to the school. Being aware of need for providing equal space and opportunity with the tremendous difference in nature and extent of exposure and opportunity.

The third element is to understand how humans learn and in particular children of that age group learn and behave. This includes the understanding about what learning means. For example learning does not only mean the ability to recall or the ability to mainly follow procedures. It also does not mean the ability to answer questions that are given in the book or performing at the time of the test and according to it. So having a sense of what is to be learnt and knowing how to judge if that engagement and learning is taking place in their classroom. There has been a lot said about this including in the policy and curricular documents but it is easier said than conceptualised and concretised and even more difficult to put in to practice.

The fourth is knowing the subject to be transacted that is knowing why it is relevant to learn, its nature, be confident of the concepts that form the basic framework of the subject and their nuances. The attitude must be of felicity and curiosity with respect to the subject and not of fear and anxiety overburdened with the arrogant prestige of knowing the subject. There must be the ability to trace the journey children follow to learn the concepts and the nuances of the subject with understanding and compassion. The current teacher prepared by the current system is far from this. It is a difficult proposition to try and do all this during the period of the preparation particularly for many stages the teachers teach many subjects in the classroom. How do we build in them a sense of exploration, joy and get rid of the fear and boredom in the subjects.

Using all this to help children learn:

The last but the critical step is then to use all this in the classrooms with children. This requires ability to present knowledge, interest and engage children and using their propensities be able to organise meaningful interaction among them. Keep balance between treating them like innocent flowering buds or mouldable clay and thinking of them as rogues and vicious entities out to create trouble and indiscipline. Make the classroom a place of dialogue and help evolve right and wrong notions in a non-oppressive way. Notions and value systems that they can stand up for with rational reasons.

This seems comprehensive and is often underlined and talked about but is extremely difficult, if not impossible to even partially put in to practice. Teachers are and would perhaps always remain the essential element to help build meaningful learning dialogue among learners and with themselves. The abilities described are not needed for a few but for all teachers being able to do it for most children.

The notion of the teacher as a learner and her expected role:

The battle for teacher preparation has always been at one level a zero one game. There is the desire to load everything on to the teacher and expect to prepare her for that or to claim that not much be maybe expected. Sceptics claiming pointlessness of teacher preparation and training are arguing to cut costs on this even more. For them money should be spent on the children directly. They argue that no matter what the teachers would not be transformed and be expected to devise their own teaching learning program and actively construct their classroom along with the inputs from the learners. Therefore, all they need are a few tips and then clear directions. And the dreamers claim the opposite yet both agree that the present situation is terrible and the blame is on the teachers. Any nuanced analysis is cramped by the inability to struggle with the current system. The entire teacher preparation and in that, particularly pre service hinges on the question of how we understand teachers and what we think of them as persons suitable for teaching children. This would also affect what we think needs to be done to build their capacity and how to do it.

The schizophrenic view of teacher needing to be a 'god like' capable person and the attitude of disdain and disrespect for them as a category and as individuals makes the teacher engagement with

the system confused. Their preparation program needs to be clear on the perspective and the focus. Do we base it on the assumption that teachers (and hence also teacher educators) can be learners and while they may follow different procedures and strategies but they need to be developed by the teacher herself based on her understanding of life, society, learning and education as listed above. Or on the decision to give a detailed program to follow and just follow them with little or no lee way or effort at adaptation.

It is this that also brings us to the nature of transaction in the teacher training institutions. If teaching is not a mere algorithm to be followed and education is a dialogic process and the learners learn only when the teacher is also engaged and learning, then this must reflect in the processes. The teachers would reflect the same attitude as they cognised as learners. It is not that they do not need to be told anything or that they do not need to learn through interacting with those better learnt. We are here not talking about a 'constructivist' or a self development teacher preparation plan. What we are talking about is the balance between all this, the need for the teacher to be thinking, creating new strategies and tasks/ situations/methods / activities each moment and in everything and on the other side be seen as not willing to learn, put in effort, think on her own and non curious. This also requires a balance between developing theoretical framework of teaching and learning as well as the aspects of practice with schools and children to experience and understand. The argument that teachers do not need theory as it does not help and what teachers need is precise ways of dealing with a variety of children and a list of things that they can do in different situations as per directions. This is reflective of the incorrect and incongruous understanding of theory and equating it with merely knowing everything as facts to be recounted. The pre-service course and its implementation has to keep in mind that it needs to conform to the principles it purports to believe in and not display but actually use them in every element of practice as well.

Do we need so many colleges?

Another issue of importance is the purpose and the meaning of the pre-service certificate. The reason this is important to think about is because the certificate affects all that happens or does not happen in teachers' colleges and the assessment

of what has been taught and learnt. It also effects the assessment and the extent to which the performance in the course is of value to the student. It has now become common to hear students and teacher educators talking about the absence of classes in some particular college and the fact that the college does not have a faculty that is remotely equivalent to the prescribed strength. The efforts of the NCTE (National Council of Teacher Education) to regulate and control the colleges that open and the faculty placements through carefully designed committees and inspections has been anything but counterproductive.

There is no coherence between the need for colleges and the permissions given and many of the State Governments feel by passed in the decision of allowing new colleges. The universities as well as the State Government are statedly not able to act on the errant private teachers colleges as much as they would like to due the role of the NCTE. While the NCTE has the responsibility of sanctioning permissions as well as lay down guidelines of various kinds including both institutional infrastructure and faculty needs, duration and nature of the program expectations and evaluation, as well as curricular considerations depend on many of these considerations.

Is the evaluation meaningful?

The reduction of the pre-service training to passing the examinations and getting the necessary certificate has had frightening consequences. It does seem the more attempt to regulate the quality of teachers by mechanical and supervisory inspectorial roles the worse has been the actual effort by the would be teachers to learn. The university examinations for these courses like all other courses are not designed to assess the actual learning and understanding of the examinee. The nature of questions indeed the questions themselves are often pre-determined and the answers devoid of any requirement of thinking. The assessment is also to ensure that most are able to pass the paper. In the process of selection given the nature of the course there is very little actually expected from the candidate about her B.Ed. experience and score. Many candidates get through with both firsts (for the theory and the so called classroom teaching) in the examinations. But even if they did not it carries for little in the actual selection process. There is almost a certainty that if you were to get admission in to the B.Ed. program

you would pass and get the certificate no matter what you or the college does. The university and its procedures notwithstanding. In this context the recent decision to make the B.Ed. course a two year course has many interesting ramifications. These will play out over the next few decades and then it would be clear what advantages if any have accrued from this mammoth decision.

Summarising:

The question about pre service preparation and indeed for any interaction with would be teachers or working teachers that is of concern is the preparation of an attitude, a propensity and also a commitment and an agency. Clearly the attitude is multi-dimensional and has elements of attitude to the social, political, cultural structure and the need for implementing the constitution. Its other aspects are the attitude to the learners and the community given the fact that there is diversity of all kinds and these diversities are affected by passionate divisions among people and sometime even rancour, indifference, disdain, derision and sometime positive hostility. How do we make teachers forget their cultural development process their particular way of understanding the nature, reasons and present construction of diversity and imbue them with a sense of respect for the other and ways of bringing them in to their strategies? How do we make them feel committed to struggle

with learners who are from very different social, cultural, linguistic, economic and life styles than them and help them with empathy while they struggle? Why should they make the effort? The question thus is how do we prepare teachers with a proper attitude, purpose and commitment to follow this through in alignment with the Constitutional principles emerging from the preamble and be able to see the long term contribution of their role. Does it simultaneously require a re look at the way the society and the administrative system looks at the teachers?

References:

- Report of the International Conference on Teacher Development and Management held in Udaipur, 23-25 February, 2009 Report of international conference on Teacher Development and Management. (2009) Retrieved from http://www.teindia.nic.in/Files/TE-Vikram/International_Conference/International_Conference_Teacher_Development-Udaipur-23-25-feb-2009.pdf
- Report of the International Seminar on Pre-Service Elementary Teacher Education Feb 2, 2010 held at NCERT, New Delhi, Ministry of Human Resource Development (MHRD)
- Joint Review Mission of Teacher Education (2013) Retrieved from http://www.teindia.nic.in/Files/jrm/JRM_Reports/JRM_Chhattisgarh-Final.pdf
- Andhra Pradesh Joint Review Mission on Teacher Education February 2014
- www.teindia.nic.in/Files/jrm/2014-15/AP/APReport.pdf

Hridaykant is currently a Professor with Azim Premji University. He has been member of the Founding Group of Eklavya and Educational Advisor of Vidya Bhawan Society, Udaipur. He has been working in the field of education for the last 40 years in different ways and aspects. In particular he has been associated with efforts on educational innovation and modification of State educational structures. He may be contacted at hardy.dewan@gmail.com



Inertia in Teacher Education and the Need for Judicial Intervention

Poonam Batra

Saraswati, a 20-year old mother of two from rural Madhya Pradesh hopes that her children can finish eight-years of schooling unlike her. Kishan Jatav a twelve-year old wanted to become a 'space scientist' like Abdul Kalam but had to drop out of school in Class VI to help his brother run a bicycle repair shop.

What is the common thread that links the lives of millions of such Indian children together? The failure of the Indian state to provide the constitutionally guaranteed entitlement to elementary education - an education that can empower these children, their parents and communities to change their lives in a way and a pace that is meaningful to them. Not one that is dictated by bureaucratic committees in faraway places or by global networks advocating private schooling for profit to build the country's human capital and its ability to compete in a globalising world.

The answer to complex structural challenges lies in a very simple but difficult place to reach – the school classroom. The battle for the hearts, mind and future of India's children is being lost each day in the classrooms of millions of schools in the country. If we are not able to change the reality of the teaching-learning process soon – then the cause may be lost, for another generation, irrespective of whether 3 or 6 percent of the GDP is committed to education.

Having said that, it is important to take stock of our successes and why we have failed to measure up to the common person's expectations.

The Right to Education (RTE) was enshrined, in the Indian Constitution as a Fundamental Right, after a half century long contest in 2009. This established binding legal responsibilities on the Indian state to provide; ensure and regulate the 'delivery' of universal quality education. Addressing non-performance in fulfilling this Constitutional entitlement subsequently shifted from Parliament and the Central and State Governments to the High

Courts and the Supreme Court. Policy measures, interventions, acts of omission and commission in conflict with the Court's interpretation of the RTE in the school system have been struck down and often replaced by Court supervised regulation and intervention.

In a sweeping move, in June 2011, the Supreme Court made a far -reaching intervention in teacher education² to address complaints of widespread malpractice, policy distortions and regulatory conflicts. After uncovering a viper's nest of vested interests from widespread corruption, dummy colleges, a moribund teacher educator community to malpractice and widespread political patronage - it established the J. S. Verma Commission (JVC) headed by a former Chief Justice of India.

The JVC after year-long nationwide consultations presented a comprehensive report³ and Action Plan to reform the sector to the Supreme Court in August 2012. The JVC noted that "...close to 90 percent of pre-service teacher training institutions are in the private sector. On the other hand, around 80 percent of children enrolled in state schools are the direct responsibility of the state as per the RTE Act." and observed that NCTE's (National Council for Teacher Education) inability to control the proliferation of sub-standard TEIs 'has led to the commercialisation ... thereby adversely affecting the quality of teacher education' (p. 21).

The key problems that have plagued teacher education as noted by the JVC are: the standalone nature of institutes of teacher education (TEIs); the proliferation of commercial private sub-standard institutions; an unchanged (for over 65 years) frame of duration, curriculum and pedagogy within which teachers are prepared; the acute paucity of institutional capacity to prepare teachers and teacher educators and the generalist and limiting nature of the existing Masters (MEd) programmes to prepare professional teachers and teacher educators.

²Rashtrasant T.M.S. & S.B.V.M.C.A. VID & Ors v Gangadar Nilkant Shende & Ors SLP (Civil) No. 4247-4248/2009.

³GoI (2012), *Vision of Teacher Education in India: Quality and Regulatory Perspective, Report of the High-Powered Commission on Teacher Education Constituted by the Hon'ble Supreme Court of India, New Delhi: MHRD.*

Of the 291 institutions in Maharashtra reviewed by JVC, more than 85% were recommended for closure. Based on this experience, it recommended that the NCTE should 'develop a new framework for undertaking inspection of recognised institutions, with enhanced focus on process parameters, to ascertain the quality of the institutions...the Government should increase its investment for establishing TEIs.'

The report made 30 specific recommendations to revitalise the sector, improve pre-service and continuing professional development programmes for teachers; modify the statutory regulatory functions of the NCTE and make revisions in the NCTE Act.

These were ratified by the Supreme Court, which in a departure from established practice then established a three person Implementation Committee⁴ (IC) to provide independent oversight on the faithful implementation of the JVC recommendations by all policy making, regulatory, advisory and implementation agencies of the Government of India, State Governments and teacher education sector institutions.

Committees set up by the NCTE and the GoI at the behest of the IC have then provided a road map, outlining several concrete strategies for implementation. These include: structural changes in institutional arrangements; attracting fresh talent to the field of school and teacher education; redesign of curriculum of teacher education programmes to enhance diversity; developing knowledge and learning contextualised to Indian society and appropriate regulatory mechanisms to enable significant shifts on the ground.

As an example, the JVC asserts that "apart from augmenting the required capacity to prepare teachers, pre-service programmes require a radical shift in curriculum and institutional design." As a result of their 'standalone' nature, TEIs 'remain severed from activities of knowledge generation and a culture of research and interdisciplinary studies...it is therefore desirable that new teacher education institutions are located in multi and inter-disciplinary academic environment.'

A critical way forward to address three JVC recommendations i.e. (a) increase government investment and (b) prepare high quality teachers through integrated programmes of general and professional education and (c) to remove the intellectual isolation that characterises school teachers and schools is to locate teacher education programmes (TEPs) of secondary and elementary education in university-based colleges offering undergraduate studies in liberal arts and sciences.

There are over 16,000 NCTE recognised TEIs that train elementary and secondary school in the country. Of these, about half the TEPs that train elementary teachers are outside the University system. In comparison, UGC's data-base on affiliated and constituent colleges suggests that there are over 35,000 Colleges of liberal arts and sciences across the country. States in urgent need of teachers, but lacking in TEIs can tap the large number of undergraduate colleges that could offer pre-service teacher education.

Fourteen deficit states alone require an additional annual capacity of about 19,000 teacher educators. The JVC and the XII Plan Working Group (WG) had suggested many concrete ways to fill the massive deficit in teacher educators. They include (a) enhancing the capacity of existing institutions by increasing the annual intake. (b) creating capacity in Universities to offer MEd programmes (c) diversifying the eligibility criteria for teacher educators.

Therefore the JVC recommends that the essential qualification framework for teacher educators be made broad-based in a manner that ensures the entry of specialised faculty to become teacher educators. The XII Plan WG also observed that the 'restrictive norm' of MEd as an essential qualification 'needs to be reviewed in the light of (a) the skills of teacher educators required and the demands of a revised curriculum within the frame of NCFTE, 2009; and (b) international practice in respect of teacher education institutions...the central idea is to offer alternate paths for persons from various disciplines to become teacher educators.'

⁴The Implementation Committee was constituted by the Ministry of Human Resource Development, Government of India in compliance with the Order dated 14/16.5.2013. The Implementation Committee prepared a comprehensive Action Plan for giving effect to the recommendations made by Verma Commission. The order dated 10/9/2013 passed by the Supreme Court of India in SLP (C) No.2399-2400/2009 along with several other Leave Petitions, directed the NCTE to notify the new regulations latest by 30/11/2013, later extending the date to November 2014. It was further directed by the Supreme Court of India that all 'recommendations made by the IC shall be binding on the Government of India, the Government of all States and Administration of Union Territories and also NCTE, University Grant Commission and all of them shall implement the same without any objections and without modifying the same'.

The JVC too has clear views on this. The Commission notes unequivocally that the “preparation of teacher educators has remained a weak link in ensuring the quality of pre-service teacher education, and therefore, the issue of the profile of a teacher educator should receive due attention, transcending the existing thinking on the subject” (p. 17). While recommending a strong grounding in the social sciences for the teaching of foundation courses, it observes that the current institutional norm of requiring the MEd degree for the recruitment of teacher educators is limiting and needs to change.

Enabling a multi and inter-disciplinary faculty to become teacher educators, with strong theoretical and epistemological grounding in major foundational disciplines will provide the opportunity for wider and deeper engagement with issues of educational theory and practice. Hence, linkages with higher education are likely to become deeper and lateral, a JVC recommendation.

The JVC takes a clear view that ‘the MEd programme should become a two-year programme with adequate provision to branch out into specialisations in curriculum studies; pedagogic studies; policy, finance and foundation studies.’ This has already come into effect with the notification of new norms by the NCTE in 2014. To strengthen the MEd programme FURTHER, the Commission recommends that ‘Lateral entry needs to be provided for those who wish to undertake educational studies other than through the teacher education route.’ Opening up the MEd for graduates and post-graduates in various disciplines of social sciences, humanities and sciences (without having acquired the qualification to become a teacher) is likely to widen the pool of talent towards becoming teacher educators.

This comes from the understanding that we need teacher educators who have the capacity to engage with questions of curriculum design, aims of education, learners, knowledge and learning and that this requires rigorous theoretical engagement with foundational disciplines and not through the practice of teaching alone.

The concern of educators, who have raised several objections to the proposed revised regulations, to preserve the ‘discipline’ of education is likely to be better addressed through efforts to combine the study of education as a liberal discipline with the study and practice of education as a professional

pursuit. This can be best done in two ways: first, by bridging the contrived distinction between the pursuit of education as a liberal study and as a professional study. This would require concerted thinking and consensus building on the components, issues, concerns and methods that qualify to be called ‘professional’ and those that can be best described as ‘liberal’ components of education. This would be a matter to be resolved at the level of developing curriculum for the MEd programme.

If we agree that the professional and the liberal need to inform each other in order to enrich the theory and practice of education, then it is critical that we enable students of social sciences, sciences, mathematics and humanities to pursue educational studies (post-graduate and research) without necessarily acquiring a degree in teacher education. It is equally critical that we invite the participation of faculty trained in diverse disciplines to teach in programmes of teacher education and to research issues of education that emerge from its practice in schools and other settings.

The new education policy proposal (2016) takes cognisance of some of the critical gaps in the preparedness of school teachers, including ‘the lack of professionalism in teacher training institutes, mismatch between training and practice, teacher involvement in non-teaching activities, problems of untrained teachers, teacher shortage, teacher absenteeism, and teacher accountability.’ However, it inexplicably maintains a studied silence on the critical recommendations made around each of these major gaps in the teacher education sector, by the Supreme Court appointed Justice Verma Commission (JVC) on Teacher Education (2012).

It also chooses to take no notice of the major revision of regulatory norms and standards of teacher education programmes based on JVC recommendations, notified in the Gazette of India in November 2014 – a step taken under strict direction from the Supreme Court of India where the JVC recommendations were accepted in toto in 2012.

The only academic strategy it proposes to enhance professionalism amongst teachers and build their capacity is the recommendation of setting up a national level Teacher Education University, a concept that has been argued against during the JVC deliberations. Such a move will only augment the existing problem of preparing teachers in

an intellectual vacuum, through stand-alone institutions, that the JVC observes and takes a firm stand against.

The central focus of the draft policy appears to be on suggesting measures to make teachers accountable and perform. It recommends how 'teacher absenteeism and indiscipline' can be dealt with through instituting measures of accountability, assisted by technology such as recording attendance with mobile phones and biometric devices; the periodic assessment of teachers by making it mandatory and linked to their future promotions and release of increments. International research has demonstrated how accountability mechanisms such as instituting CCTV cameras in schools; coercing teachers to maintain elaborate documentation of their work; subjecting them to constant surveillance and control have seriously undermined their work in schools and classrooms.

Several states continue to have acute teacher shortage due to poor institutional capacity to prepare teachers. Many of these states have chosen to recruit teachers on contract, and have compromised on their essential qualifications mandated by the RTE Act. The bulk of those who qualify to be teachers, observes the Justice Verma Commission, do so through a sub-standard system of 'teaching shops' that fail to address the pedagogic needs of diverse classrooms.

The proposed policy is designed to provide a new vision for school and teacher education. In doing so, it must function within the framework of the Constitution which provides for a Fundamental Right to Education; and within the ambit of Supreme Court-made law that via the JVC defines the regulatory framework for teacher education.



The elephant in the room that we refuse to acknowledge

Vimala Ramachandran

For several decades now most in-service teacher training initiatives have focused on subject-knowledge – euphemistically called hard spots. This phenomenon dates back to the DPEP days (1994 onwards) when there was a massive push through of the project to strengthen in-service teacher training. As a result, state project offices hired experts to design training modules for teachers. What was interesting is that even during the DPEP days no one really cared to find out what is it that teachers need, what is it that they want and what is the best method to deliver it.

Way back in 1998 I was asked to work on a module on gender sensitisation of teachers. This was to be done as a part of the gender mainstreaming exercise that was pro-moted by the donors who supported DPEP programme. In order to do that, I decided to meet with groups of primary school teachers in a few states – namely Rajasthan, Madhya Pradesh and Andhra Pradesh. What I heard and saw was not only an eye-opener for an outsider like me, but was the invisible elephant in the room that no one wanted to see. Teacher educators, experts and administrators were aware of the ground situation, but strangely it was never factored into training content or training design. Surprisingly, sitting though an expert committee on the same subject in 2016, I note that not much has changed and we continue to look the other way.

In 1998 I asked a group of teachers what the barriers were to effective teaching and learning? We decided to sit in small groups and list out the barriers. This is what we talked about.

One elderly teacher who was in the verge of retirement explained that it was his confidence in children that motivated him to work. He was known as a highly effective and committed mathematics teacher and the DPEP programme had identified him as a resource person. He also opined that many teachers he knew believed ‘these children cannot learn...’, or that ‘girls cannot pick up mathematics’ or, even worse, ‘children of a particular community are dull’... He explained that the first barrier that teachers have to cross is their own limitation, their attitudes and prejudices. Yet, in-service teacher

training rarely addressed deep-rooted values and prejudices. The first step – he explained – is to ensure that our teachers believe children can learn regardless of their gender, economic situation, parental occupation, caste or community.

Discussing values and beliefs, some participants argued that textbooks and teaching -learning materials reinforce stereotypes and prejudices. Traditional notions of what is masculine and feminine and caste - specific occupations persist and peep out from illustrations, phrases and examples in our textbooks. Rural urban stereotypes are not only promoted, but urban is given precedence over rural, and non-tribal over the tribal. Educators pointed out examples across subjects of people and situations that are urban centric.

Heroes and leaders are invariably men and caregivers and homemakers are always women. These stereotypes and prejudices are neither discussed nor challenged in training programmes – because the focus is on specific topics in mathematics or science or language.

“In my textbooks I learned that only men are kings and soldiers.

Till I read a book in which famous queens ruled and fought against enemies.

In my textbooks I learned that only men Are doctors.

When I went to a doctor I saw that she was a woman.

In my textbook I learned that only men do farming in my country, until, on a train journey I saw women working in the fields.

I have learned that I have a lot to learn by seeing”

(Pooja, Ramya, Anuj, Utkarsh students of class VII, Baroda, quoted in NCF 2005 Focus group on Gender Issues in Education. NCERT, 2005)

The third, obvious, topic of discussion was on government primary schools. An overwhelming majority of primary schools in 1998 were multi-grade and even today the percentage remains significant. They are multi-grade either officially (when schools have fewer than five teachers for five classes) or unofficially (when teachers take turns to absent themselves). Yet, both pre-service teacher education and in-service teacher training assume one teacher for each class. This was tragically the case even when states like Madhya Pradesh and Rajasthan opened thousands of single teacher schools (EGS Centres, Rajiv Gandhi Pathashala, Shiksha Karmi School) in the mid-1990s. A few teachers explained that they did not know how to manage a multi-grade classroom and were left to fend for themselves. This was particularly disheartening because India has been home to innovations in this field – be it the Rishi Valley experiment or the work done by Montessori schools. As a result, a lot of the pedagogic initiatives like joyful learning, child-centric classrooms fell on deaf ears – because most teachers were trying to cope with a situation that our trainers refused to acknowledge.

Groups of teachers erupted in laughter and jokes when 'hard spots' were mentioned. There were many jokes about pre-WhatsApp days and it took some time to persuade teachers to seriously discuss the problem with the 'hard spots' approach. Theoretically teacher-educators and subject experts identify academic hard spots encountered by teachers in the classroom and prepare modules to address them. Rigorous analysis of answer papers of students is supposed to enable experts to identify hard spots. Interestingly teachers argued that many of them have weak conceptual understanding and a training programme that focuses on specific topics (for example, fractions or place value in mathematics) does not help them re-learn the concepts that they are fuzzy about. A more holistic approach to subject-specific in-service training – one that goes over fundamental concepts – would be important in the beginning.

Another interesting revelation was that teachers were often chosen at random to attend training and there is no guarantee that those teaching mathematics would be in one group and those with difficulties in language teaching would be another.

Some teachers said that there are a group of 'training teachers' – meaning those who attend all training programmes and there are those who do not attend any training workshops. There is no system to keep track of those who have attended training, the kind of training they participated in and what more needs to be done to build their capabilities. This situation continues to-date. In a recent study on how we manage our teacher workforce in India (Vimala Ramachandran et al, NUEPA, 2015) we found that there is no Management Information System (MIS) that tracks participation of teachers in in-service training. Equally shocking is that most states do not match subject-specific training to teacher requirements. As a result, most teachers we met in 2014 and 2015 said that they were tired of in-service training and that it was not of much use to them in the classroom.

None of the nine states covered in the study had an effective policy for in-service training of teachers. Training is carried out in an ad hoc manner, almost exclusively funded by two Centrally Sponsored Schemes (SSA and RMSA); and is, therefore, subject to availability of these funds and the associated modalities and priorities. The incidence of training varied significantly across states. Most importantly, there is also no database that records not only the number of training programmes conducted, but also the issues / topic covered in the training.

It is well known that states receive significant resources for in-service training of teachers under two Centrally Sponsored Schemes (SSA and RMSA). For example, in FY 2012-13, Rs. 1273 Crores was approved for states under SSA, though only about half that (Rs.619 Crores) was actually spent.¹ The figures for RMSA were much lower – only Rs.18 Crores was allocated for teacher training, though this still constituted the bulk of state spending on this item.² Very little progress was made on absolute number of elementary teachers across India receiving training between 2005-06 and 2012-13, even though the numbers did pick up markedly first in 2007-08 and then again in 2011-12 (Table 1). And making the picture grimmer is the significant decline over this period in the percentage coverage of in-service training – from a mere 36.4 percent of all teachers across India in 2005-06, and 34.2 percent in 2011-12, the proportion in 2012-13 fell to 25.8 percent.

¹Source: data collated from audit reports from SSA as posted on MHRD website.

²Source: Authors' calculations from data reported to the 4th Joint Review Mission of the RMSA Programme.

Table 1: Number and percentage of elementary teachers receiving training in previous year (all-India)

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
No. of trained teachers	1706214	1688255	2072961	2010873	2035106	1892474	2285050	1893841
% of trained teachers	36.4%	32.3%	36.8%	34.7%	35.0%	29.6%	34.2%	25.8%

(Source: Vimala Ramachandran et al, NUEPA, 2015)

Sensitisation of teachers to gender issues, social equity, the impact of poverty of children's schooling and the alarming tendency whereby families with some means opt to pull their children out of government schools – have always remained a challenge. Equally, enabling teachers to unlearn what they learnt as students and re-learn concepts is no mean task. Countries like Poland worked very hard and for many years before they were able to make a breakthrough.

One of the main reasons for the ineffectiveness of in-service teacher training today is the overarching architecture of training programmes. The continued use of didactic, topic-wise lectures as the preferred mode of training has come in the way of addressing attitudes, practices as well as the challenges teachers face inside the classroom. Sensitisation involves change in attitudes, work culture, school level priorities, resource availability and monitoring. Therefore, the word training does not adequately capture the range of issues that need to be tackled simultaneously. This process may begin with training but has to go on to tackling problems and issues that teachers face on a day-to-day basis. Teachers who were trained in Shiksha Karmi, Rajasthan talked about the power of experiential training and how it changed them as people and made them good teachers. Similarly, Mahila Samalhya's ability to nurture a pro-poor approach has a lot to do with the holistic approach was adopted.

Reflecting on the common features of different experiential training programmes, it is possible to list some generic principles³:

- The first step in most experiential or transformative training programmes involves

creating an atmosphere where the trainees talk about their work, reflect on their experience and begin to feel confident to discuss without fear of censure or evaluation, thus creating a climate for genuine exploration and mutual learning.

- In conventional training programmes, the trainer takes on the task of giving information. However, when we deal with attitudes, information transfer is not adequate and could lead to hostility. Information has to be gently encouraged from the group, giving the participants an opportunity to talk about their school, their students, their family, and their community. The role of the facilitator (trainer) is to list the information, classify it, and involve the group in separating the 'facts' from value loaded statements – and exploring each gently and honestly. In most situations eliciting information from the group throws up almost all the issues that need to be covered.
- Once the information has been generated from the group, the next step is to involve the entire group in analysis. This prevents the most common reaction, i.e. 'what you say does not apply to my region, my community, my work place'. Such reactions invariably put the facilitators in a defensive position, and often lead to indifference or apathy in the group. Analysing the information generated by the group leads to a high degree of involvement and also enables the trainee to connect with his/her own school and children.
- At the end of this process, the facilitator shares information, ideas, alternative pedagogies – depending upon the situation. When the trainees themselves work in small team to generate what

³A much longer discussion on this was published in 1998, see Vimala Ramachandran: *En-gendering Development: Lessons from the Social Sector programmes in India. Indian Journal of Gender Studies Vol 5, Number 1, pp 49 to 63*

they need as teachers – the power of that process will motivate them. At this stage, information or concepts or even ‘hard spots’ would assume an entirely new meaning. It is not what the trainer says to the trainees, but what the trainees wish to say to each other and ask specific support from the trainers or facilitators.

- Transaction of information / knowledge / ideas thus become a creative exercise, where the trainees’ knowledge base is tapped enhancing their sense of self worth. It also enables them to identify with the training process and feel that they have shaped it. In short, the facilitator has to draw upon the collective knowledge of the group, give it an opportunity to articulate its opinions, and build upon this in subsequent sessions.

An experiential learning process (or experiential training) involves both the mind and the heart. When the heart is convinced, the information, knowledge or strategies are internalised immediately. For the heart to be convinced, the information must not only be authentic in the eyes of the trainee, but must be like a mirror that reflects the ‘truth’ as perceived by the trainees. This is important in training programmes that seek to bring about attitudinal change as well as in teaching learning processes.

Another oft -forgotten issue is the importance of reaffirming the value of common sense - one that enables us to relate our daily experience as teachers to educational processes. Teachers have the ability to critically reflect on society,

dominant prejudices, the school, curriculum and pedagogies. Training programmes that ask trainees not to mix a professional approach and common sense fragments the experiential reality. Building bridges between these two worlds invariably yields valuable insights.

A new architecture of in-service teacher training needs to adhere to the above principles. A group of facilitators needs to live and work with the group through the duration of the training, weaving in exercises that enable teachers to link pedagogies with classroom environment. Inclusion of all students will be possible when trainers ensure inclusion of all teachers participating in the training. Similarly, teachers will make sure they have been able to reach every child in their class if the teacher-educators consciously do that in the training, demonstrative ways to ascertain everyone in the room are on board. All this involves using participatory research tools creatively, encouraging teachers to actively contribute towards achieving not only the ‘subject’ goals of the training programmes but, more importantly, the pedagogic goals.

Exposure to new ideas, a different vision of the world and encouragement to put new insights into practice, all need to go hand-in-hand with a conscious effort to unlearn. We as ‘experts’ or ‘teacher educators’ or ‘educational administrators’ need first to unlearn what we have been doing mindlessly and start a genuine exploration of alternative approaches and architectures to in-service teacher education.

Vimala, of Educational Resource Unit, New Delhi was involved in the conceptualisation of Mahila Samakhya (Education for Women’s Equality) and served as the first National Project Director from 1988-93 in MHRD, GoI. She established Educational Resource Unit (now known as ERU Consultants Private Limited) in 1998 as a network of researchers and practitioners working on education. She was a National Fellow and Professor of Teacher Management and Development in NUEPA. She has been engaged in research on elementary and secondary education focusing on gender and equity issues, teacher status and motivation, systemic barriers to realising the equity goals of national policies and programmes for elementary education, adult literacy and continuing education, and most recently has been engaged in researching educational needs of out-of-school youth – especially girls. She may be contacted at vimalar.ramachandran@gmail.com

Empowering Teacher Educators

Mythili Ramchand



In this article I will share my experiences¹ of engaging with teacher educators working in the preservice elementary teacher education sector (that awards the Diploma in education, D.El.Ed). The context was the curriculum revision of the D.El.Ed programme taken up by SCERT, Karnataka in 2012-13. The article problematises the preparation and practice of teacher educators.

Teacher education is currently in a state of flux in our country. Expectations from teachers are rising across board while equity issues remain unresolved and exacerbated across a range of schools. Systemic changes in teacher education are being initiated in the light of National Curriculum Framework 2005, the RtE Act 2009 and the Justice Verma Committee Report 2012. Teacher education programmes across the country are being concomitantly revamped to ensure teachers can meet the cognitive demands of revised school curricula and develop the necessary depositions and skills to cater to inclusive classrooms that the new legislation mandates. Teacher educators form the key in implementing such programmes.

The National Curriculum Framework for Teacher Education (NCFTE, 2009) provides the guidelines for curricular revisions of teacher education programmes, both in the preservice and inservice sectors. It stipulates reflective practice as the central tenet of teacher education. Reflective practice calls for a critical stance towards 'received' knowledge and to hold one's knowledge and practice as hypotheses to be constantly tested (Socket, 2008). Currently teacher educators are not equipped to do so. They tend to treat knowledge as 'given' and view practice as a static set of 'methods', delivered predominantly through lectures (Mythili, 2011). This is primarily because teacher educators are not prepared at the beginning of their career with the necessary knowledge, skills or dispositions to function as scholars capable of critiquing existing canons of knowledge. The NCFTE also points out that the "weakest aspect, perhaps, of teacher education is the absence of professional preparation of teacher educators" (NCTE, 2009; p. 15). The professional qualification mandated for teacher educators is

M.Ed. Hitherto the programme lacked vibrancy and has failed to equip teacher educators adequately to cater to the demands of their profession (NCTE, 2009). Opportunities for subsequent professional development for generating a robust knowledge base are also very limited for teacher educators (ibid). In a study² conducted in Karnataka a majority of teacher educators in elementary teacher education institutes reported not to have attended any in-service programme (Mythili, 2011).

So when the Government of Karnataka initiated curriculum revision of the D.Ed programme in 2012, the Department of State Education Research and Training (DSERT) initiated a slew of measures to empower teacher educators. Apart from consulting some of them on the curriculum revision process, curriculum support materials in the form of handbook and manuals were published to help transact the revised curriculum, along with a series of video recordings by concerned domain experts. Orientation programmes, both face to face and through teleconferences were conducted.

Observation of over a hundred classrooms of elementary teacher education institutes had indicated that lecture was the only mode of transaction used (Mythili, 2011). To help teacher educators move beyond the telling and to model the practices that an elementary school teacher is expected to adopt, a teacher educators' handbook was prepared by the members of the curriculum drafting committee³. For every course, a range of suggested cognitive tasks and learning experiences were mapped against each unit, along with possible resources and assessment strategies. Teacher educators were encouraged to use a range of suitable resources to overcome the dependence on a single 'textbook'. Both to ensure vibrancy in classroom transaction and enable assessment of processes, the revised curriculum allotted 40% to internal assessment. A range of tools, techniques and tasks for assessment were suggested in the handbook. A manual on assessment was subsequently prepared when teacher educators expressed apprehensions about maintaining quality in internal assessment across institutes.

A 10-day orientation programme in cascade mode was planned in two phases. Each DIET selected five teacher educators from the district as master resource persons. Nearly 150 of them attended the orientation programme. They in turn oriented the 4000 plus teacher educators across the state, in their respective districts. Since the teacher educators were not conversant with the current discourses and policies on education in the country, the first phase of five days was meant to give an overview of NCF 2005, NCFTE 2009 and RtE 2009. The second phase focussed on communicating the rationale and expectations of the D.Ed programme and the broad principles of each course in the revised curriculum. Compounding the transmission loss that is inherent in the cascade mode, there was loss of continuity as some of the participants especially the DIET faculty, could not attend both phases due to other work commitments. Also the large numbers precluded deeper engagement through discussions and dialogues. To offset this to some extent, a series of quarterly teleconferences between the curriculum drafting team and teacher educators across Karnataka were held in 2013-14, the first year when the revised curriculum was implemented.

While we are yet to make the transition from telling to modelling and guiding practice, even these are insufficient for teacher education. In order to be a truly reflective practice and ensure inclusion, teacher education must emerge as a site of inquiry to question, probe, critique and go beyond the technical (Loughran, 2014). Teacher educators must be able to develop 'adaptive expertise' among their student teachers if they are to emerge as dynamic teachers who can work under conditions of uncertainty and rapid changes, and most importantly develop capabilities for socially inclusive practices and narrow the increasing achievement gaps within and across a wide range of schools. For this to happen, teacher educators must take up the onus of engaging with current conceptions and practices in education in more nuanced and deeper ways. They must develop a vision for their own professional development and emerge as drivers of reforms rather than 'objects of reform', as Poonam Batra (2014) cautions in the case of teachers.

Simultaneously the regulatory system has to be imaginative and far sighted in broad basing entry level stipulations, as suggested in the NCFTE 2009, so as to encourage interested people from diverse backgrounds to take up teacher education as a profession, to foster much needed vibrancy. For meaningful implementation of the revised M.Ed curriculum (NCTE, 2014) current University Departments and colleges of education offering the programme have to be adequately equipped with a range of resources and the faculty given intensive orientation. Robust structures and designs for the ongoing professional development of teacher educators need to be put in place, by the central and state governments.

Notes

1. My gratitude to officials at DSERT and to the team that drafted the curriculum and prepared the associated materials, particularly Prof. CG Venkatesha Murthy, RIE Mysore who headed the curriculum implementation team.
2. The study was commissioned to RVEC by the Karnataka Knowledge Commission in 2010. A stratified random sample of 108 TEIs (which comprised of 10% of the existing colleges at that time) across Karnataka was studied.
3. While co-opting with practitioners and domain experts, the conveners of most courses were involved in the entire process of writing position papers, drafting the respective course curriculum, preparing teacher educators' handbook and sourcebook for student teachers as well as in setting the first set of question papers for the final examination conducted by the KSEEB.

References:

- Batra, Poonam. 2014. Problematizing teacher education practice in India: Developing a research agenda. *Education as change*. 18(1); pp.55-58
- Department of State Education Research and Training (DSERT). 2012. *Karnataka Elementary Teacher Education Curriculum*. Bangalore: DSERT.
- Department of State Education Research and Training (DSERT). 2013. *Teacher Educators' Handbook*. Bangalore: DSERT.
- Loughran, J. 2014. Professionally developing as a teacher educator. *Journal of Teacher Education*. 65 (4). pp. 271-283.
- National Council for Educational Research and Training (NCERT), 2005. *National Curriculum Framework*. New Delhi: NCERT.
- National Council for Teacher Education (NCTE), 2009. *National Curriculum Framework for Teacher Education*. New Delhi: NCTE.
- Ramchand, Mythili. 2011. *Pre-Service Elementary Teacher Education in Karnataka: A Status Study*. Bangalore: Karnataka Knowledge Commission.
- Sockett, Hugh. 2008. The Moral and Epistemic Purposes of Teacher Education. In Cochran-Smith, Feiman-Nemser & Mc Intyre (Eds). *Handbook of Research on Teacher Education*. New York: Routledge.

Mythili is currently the Director of RV Educational Consortium, Bangalore and an Adjunct Associate Professor at TISS, Mumbai. The primary focus of RVEC is on research and development in the elementary teacher education sector. Mythili is presently involved in anchoring the current projects at RVEC and in launching a certificate course for teacher educators in collaboration with TISS. Her other interests pertain to inclusive education and philosophy of education. She may be contacted at rvecbangalore@gmail.com



Reconsidering the Structure of Educators' Professional Development Reflections from the Gyan Shala experience

Pankaj Jain

This short note presents some ideas for designing Professional Development Program for Educators, which meet three criterion, namely (i) the program design should match the needs of educators' role requirements, (ii) the program should build upon the educational foundation of program entrants, and (iii) new program should incorporate past demonstrated successes. Our analysis leads to a view at significant variance from those of NCTE about teacher education programs, so these deserve to be debated and analysed.

I. Role requirements of educators

For our analysis, we have divided educators into nine categories of school teachers, each needing different skill-capability sets for effective performance, and four other categories, namely, of (a) teacher trainers, (b) curriculum planners, (c) education policy analysts/ makers, and (d) education academician-thinkers.

We have chosen 14 skill/ capability sets that are typically covered in most educator development programs, and tried to list the required level of each, and currently attained levels, for each of above 13 categories/ groups of educators, as the basis of our analysis. These are indicated in the table given at the end. To minimize the gap between the desired and attained levels of skill/ capabilities, then become the goal to be attained by the new professional development strategy/ programs for educators.

{Both the categories of educators and required skill sets can be amalgamated or expanded into lesser or more number of categories for further analysis, but we find this categorization adequate to make the point we wish to make}.

It is not uncommon for a university level professor to combine all four generic roles, (a) academician/ thinker-researcher, (b) policy analyst, (c), curriculum planner-developer, & (d) teacher trainer-guide, to their role as postgraduate class teacher in his/ her area of specialization. We posit that combing all these roles is feasible only for fairly a narrow subject-topics specialization, e.g. organic chemistry or medieval history of India, but is infeasible for school

teachers, who have to deal with multiple subjects, across multiple-levels/grades at elementary stage, or a broad subject stream like Math or Science or social studies across various level/ grades. Given the breadth of their work-scope, and demands of interacting with 20-40 energetic children for 5 hours a day, the school teachers cannot realistically do more than 'teaching of approved curriculum material', or 'teaching to exam'. Some elite schools try to create atmosphere and working condition akin to a university, and provide space-setting to teachers to add curriculum planning to their role as subject teacher. In most other government or low-medium cost private schools, both rural or urban, having both single or multi-grade classes, the teachers do not have energy-time-capability to undertake even daily lesson planning, leave alone curriculum planning, across the entire range of subject-session that a typical teacher has to handle each day. (Note: Elite schools include not only likes of Ambani international schools, but also Akanksha or Digantar schools for poor, or Rishy Valley for socio-cultural elite or Navodaya Vidyalay for top performers).

Proposition 1:

The professional development of teachers of most schools, except of/for elite, need to prepare them to teach effectively from the approved curriculum material, as the only feasible/ realistic goal.

Centrality of three subject stream in elementary curriculum

Worldwide school curriculum at elementary stage comprises learning of language, math and natural science. Most knowledgeable people would also agree that at least satisfactory level of competence of high school level math and science is a pre-requisite for teachers at lower elementary level, while for higher elementary level, teacher must have at least secondary level expertise in these subjects. Further, all language teachers need to understand what 'linguistics' tell us about learning of first, second or multiple languages. Since in most real life schooling situations, teachers could be required to teach across all elementary grades, if

only during the absence-leave of other teachers, it should be axiomatic that

Proposition 2:

The professional development of elementary school teachers must ensure satisfactory level of competence in secondary level math and science, asides understanding how languages are learnt. This is the basic requirement for designing the professional development program to foster the required sets of skill/ capabilities.

II. The skill/ capability level of entrants to educators' professional development programs.

We hold that average 65-70% marks in the Board/ University examination is a reasonable indicator of attainment of satisfactory level of expertise at that level. Indian system of school and university education enables a person to have graduate or post-graduate non-science degree, and join teacher education program, without a satisfactory level of high school or secondary level of math and science knowledge. A large majority of existing teachers or entrants to teacher training courses, thus, come with less than minimum desired level of knowledge/ expertise in two core school subjects of math and science. Most entrants are also ignorant of, or have dis-functional beliefs about, how language is learnt/ acquired, as explained by linguistics,

Proposition 3:

The Indian teacher education programs, therefore, need to fill in the common gaps in the math and science subject knowledge of desired secondary level, among the entrants to teacher education program, as the first priority.

Proposition 4:

Given that most school teachers would not have time/ space/ energy/ competence to do even next day's independent lessons plans, it will be unrealistic to expect them to re-interpret, leave alone re-design, the curriculum plan embedded in the approved learning material for use in the classrooms. Therefore, the courses like 'Philosophy of Education', 'Learning theories', 'critical analysis of education policies', which are necessary for designing & interpreting curriculum, ought to be residual priority for the school teachers, except in the schools for elite.

III. Incorporating the lessons of past successes in educators' development programs

1. Inquiry Mode of learning

Most educationists vouch for the efficacy of inquiry based education, e.g. pioneered by Prof. Hale of MIT in the context of Linguistics, and pursued under alternate headings such as 'project oriented', 'experiment oriented', 'hypothesis testing', 'design based' learning, in many other contexts.

Proposition 5:

Teacher professional education ought to have significant component of 'inquiry mode' of learning, so not only their own education is effective and properly rooted, they also get adequate practice of this mode, to be able to replicate that mode in their own classrooms. We, therefore, recommend use of series of 'workshops', as indicated in the attached matrix, as a better instrument than standard 'course work, on the topics indicated.

2. Integrating reflective practice with learning through on the job training, and mentored practice.

As with the acceptance of the effectiveness of 'inquiry mode' of learning', in contrast to 'exposition mode' of teaching-learning, there is widespread acceptance of the utility of integrating reflective practice with formal learning. There is also widespread recognition of depletion of learning with the passage of time.

Proposition 6:

To design teacher training in response to both these factors, we suggest that a significant-larger part of formal teacher education, leading to teacher eligibility certificate, must be in the form of a series of on-the job training modules, whose completion is linked to the award of teacher education degree/ certificate.

Discussion-exploration of better solutions for Teacher Education

The above analysis is summarised in the following table, which suggests a radical departure from the teacher education framework recommended- approved by NCTE and adopted in teacher- education programs in India.

The table has 13 columns for each of 13 role categories of educators. The fourteen rows in the table relate to competencies-skills that are considered important for the educator' role. In each of 14*13 cells, we have indicated our empirical judgment of what level of skill/ competence is needed for effective performance, and what level is typically attained by educators under the prevailing teacher education programs. The two numbers in

the range 1-5, outside and inside a parenthesis, signify these levels, 5 representing higher level. The gap between the desired and typically attained levels indicate the nature and extent of reformative actions needed for ensuring effective professional development of educators.

Conclusions:

Our analysis suggests a structure of teacher education for lower and upper primary levels, which shall comprise around one year of program, comprising 2-3 one week workshops, of the type popularized by Eklavya/ Vidya Bhawan/ Digantar trainers, and 2-3 terms of course work, focused largely on 3 core subject streams. Another part of this program would be a series of short duration reflective reviews, based on mentored practice that is to proceed along with regular work as teacher for one year. The differentiator of the program for

elementary and secondary teachers could be the entry level education, which should be graduation for elementary and post-graduation or equivalent for secondary. In both cases, a recertification every five years, based upon in service education and teaching performance will be mandated.

We suggest a totally different program structure for ‘curriculum planners, and ‘teacher trainers, which could lead up to becoming education academics. This need not be seen as next or higher stage of teacher training, but as a differently structured program, more like M.Ed. of present. We similarly suggest a differently structured program for policy analysts/ makers, in the form of 2-3 workshops on ‘education-pedagogy’ issues to supplement the deep domain expertise that a policy analyst-makers would already have.

Analytical Framework to assist designing the teacher professional development programs: Reflections of a Practioner (Gyan Shala)														
Skill SN	Skill/School type {Note: Each cell indicates expertise level needed for effectiveness (and currently prevailing under parenthesis)}	Teacher trainers	Curriculum material planner	Policy Makers Analyst	Academicians	Teachers								
						Lower Primary			Upper Primary			Secondary		
						Govt.	Low cost Pvt.	Multi grade (Rural)	Govt.	Low cost Pvt.	Multi grade (Rural)	Govt./ LC Pvt.	High Cost pvt	Elite Schools, K-12
1	Philosophy of Education	2 (?)	3 (?)	4 (2)	5 (3)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	2 (?)
2	Theories of learning	02(?)	3 (1)	4 (?)	5 (3)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	2 (?)
3	History/ critical review of Edu. Policy	2 (?)	3 (?)	4 (1)	5 (3)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	1 (?)	2 (?)
4	Pedagogy and class norm derived from philosophy/ theories	5 (3)	5 (3)	5 (1)	5 (4)	5 (1)	5 (1)	5 (1)	5 (1)	5 (1)	5 (1)	5 (1)	5 (1)	5 (2)
5	Secondary level math/ science	NR	NR	NR	NR	5 (1)	5 (1)	5 (1)	5 (1)	5 (1)	5 (1)	5 (2)	5 (2)	5 (2)
6	Linguistics derived lang. pedagogy	5 (0)	5 (0)	5 (0)	5 (1)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)
7	Higher science-math expertise	5 (2)	5 (3)	NR	NR	NR	NR	NR	NR	NR	NR	4(1)	4 (2)	5 (3)
8	Social Studies knowledge/ pedagogy	5 (1)	5 (1)	5 (1)	5 (2)	NR	NR	NR	5 (1)	5 (1)	5 (1)	5 (1)	5 (1)	5 (1)

9	Integrated/ Project mode learning	5 (0)	5 (0)	5 (0)	5 (1)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)
10	Graded curriculum material use skill	5 (1)	5 (1)	5 (1)	5 (1)	5 (0)	5 (0)	NR	NR	5(0)	NR	NR	NR	NR
11	Multi-grade curriculum material+skill	5 (1)	5 (1)	5 (1)	5 (1)	NR	NR	5 (1)	NR	NR	5(0)	NR	NR	NR
12	Understanding Rationality	5 (1)	5 (1)	5 (1)	5 (2)	NR	NR	NR	NR	NR	NR	5 (1)	5 (1)	5 (1)
13	Specialization in a particular subject	5	5	5	5	1 (0)	1 (0)	1 (0)	2 (0)	2 (0)	2 (0)	3(1)	3 (1)	3(1)
14	Learning vs. teaching centred school	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (0)	5 (2)	5 (2)	5(2)

Note 1: 5 represents the higher (postgraduate level) and 0 lower (high school level) of skill/ expertise.
Note 2: NR is not relevant.

Alternatives modes for fostering required capability/ skills

A	Work shop (activity based, inquiry) mode	4, 6, 8, 10, 11	Three work shops, one for 4, second for 6 & 8, and 3rd for 10 & 11.
B	Intensive Course Work mode	5, 7, 8, 10, 11, 12	Two to three terms with one term of mentored practice
C	Continuous/ concurrent training	5, 6, 7, 8, 9, 10, 11, 12	To be sequentially phased and repeated
D	Mentored practice	All, 4-12	

Recommended Professional Development Programs for Educators

I	Lower Primary Teacher	Graduation+ A+ B for one year, and (C+D) for one year.
II	Upper Primary teachers	Post Graduation+ A+ B for one year, and (C+D) for one year.
III	Secondary teachers	Post Graduation+ A+ B (with graduate level of math and science in 5) for one year, and (C+D) for one year.
IV	Teacher Educator/ curriculum planners	Post graduation + Two years of course work 1-14, including one term of mentored practice
V	Policy analysts/ planner	2 week workshop on item 4 and 6, to supplement their domain specific specialization

Pankaj worked as a faculty at IRMA for more than a decade, and also at a few western universities as visiting scholar, after completing studies at IIT(R) and IIMA. He also worked as senior executive and development management consultant in various Asian countries, before starting the education project Gyan Shala in the year 2000. He may be contacted at pjain2002@yahoo.com



Acharya to a Service Provider: Travelling without Reaching

Rajesh Kumar

It would be difficult to find a period when teachers and their central role in education was not acknowledged, but not much effort is required to notice the variation in the social status and public image of teachers and role played by them both across time and space. The unquestioned privileged position of the teacher who knew what to teach and how to teach has gone long agoⁱ. The insistence of the state to get maximum return on the public investment in education in the name of teacher accountability has been used to gnaw gradually at teacher autonomy. The State's passing of part of the cost of education to parents has empowered them to the extent that phrases like '*customer satisfaction*' are being used. By appointing para- teachers on different terms and conditions than those applicable to the regular teacher, states have succeeded in destroying the fellow feeling among teachers and instilling a sense of insecurity leading to their abject surrender and unconditional obedience. Consequent change in notions of teaching and teachers' role in relation to the system, students and parents calls for revisiting our understanding of who teachers are.

We are living in a time when our civic and cultural institutions are under siege and the gap between rich and poor is widening and it is the teachers who are being blamed. Most legislatures that have failed to live up to the expectations of the people have focused almost entirely on teaching and teachers. Various ways and means in the name of curriculum, textbooks, teaching methods, scheme of evaluation, teacher education are being tried to make them '*more responsible and accountable*'.

In this context it becomes relevant to know who these teachers are, what status they enjoy and what roles they play or are expected to play. We come across different answers to these and other similar questions that are indicative of a hydra-headed systemic and public perception of teachers and their roles as perceived in the society. Individuals or groups use the one they like to in a particular context. A causal understanding of the endeavor of teaching appears to be the driving force underlying all these understandings where all

that school graduates do or do not do is because of what teachers do or do not do.

The hydra-headed systemic and public image of teachers and their roles can also be seen through the lens of metaphors that have been used around teaching and teachers. Phrases such as teacher as gardenerⁱⁱ; teacher as liberatorⁱⁱⁱ; teacher as parent^{iv}; teacher as an applied scientist^v; teacher as therapist^{vi} are indicative of the distance teaching and teachers have travelled in terms of public perception. Recent additions like teacher as a reflective practitioner and teacher as a professional are to be encountered more frequently today. All this compels to ask the question: Who are these teachers? And what do they do? '*Metaphors that we live by*' systematically and unconsciously structure the way we think, perceive and act in relation to self and others.^{vii} With changing realities and consequent concerns of the modern society the expectations from education too have changed as can be seen in the series of metaphors above. To understand this change one has to use the figure/ground metaphor; the very concept of change becomes empty in the absence of ground, against which the change is to be understood.^{viii}

Understanding teachers' roles and status and the changes that have occurred in the same can be a tricky issue as one can attempt it from various perspectives, whether the general perceptions of teachers, or of the system about who teachers are and what they are supposed to be doing or the views of academicians – philosophers, psychologists, sociologists and others – about teaching and teachers. There is also the teachers own changing image of themselves and their status. Any attempt to understand the changes that have taken place in the perception of teachers' role and status which intends to cover all these dimensions in a single article is a perfect recipe of failure and, trying to understand the changes from only one point of view by ignoring the others for the sake of convenience and feasibility brings the story of seven blind men and an elephant to my mind. What is being attempted here can be seen as a compromise between the two approaches

– considering all versus neglecting all but one – where the status of the teacher is the focus and changes that occur coming from one or more of the dimensions mentioned. Whatever the word ‘teacher’ means and refers to today is to be understood as a cumulative product of the changes that we can trace looking through various lenses mentioned. The article uses the quadrangular framework of Guru (Acharya), functionary, professional and salesman (service provider)^{ix} for studying the changing systemic and public image and consequent social status of teaching and teachers with the earlier one functioning as the ‘ground metaphor’.

Teachers in India today can by no means be called descendants of the centuries-old *guru (acharya)*, but the nostalgia can be found running quite perceptibly in teachers’ talk, public discourse and social expectations. The effect of all this gets reflected in administrators eulogising the role and status of teachers, while belittling the present lot. Present day teachers and their teaching can never acquire the status of Guru as neither do they have the requisite knowledge and spiritual/inspirational qualities, nor is society and the education system willing to leave children and their education exclusively to teachers as was the practice in case of guru, with disciples spending all their time for the whole period of their education (brahmhcharya) away from society, a now non-existent and unrealisable status of teacher. It only make teachers feel guilty that they have let their profession down, a somewhat similar view to the western tradition which looks at teaching as a vocation – a calling. Teachers responding to a call can be understood as the call of God, call of society, and call of her/his own inner self. *“The sense of vocation implies a measure of determination, courage, and flexibility, qualities that are in turn buoyed by the disposition to regard teaching as something more than a job, to which one has something significant to offer.”^x*

Education in British India turned into a State affair and even private schools had to get recognition from the State. School organisation and textbooks were prescribed which schools and teachers were supposed to follow religiously. To ensure the desired school practices inspectors used to visit schools frequently and they were to be satisfied that things were going as per the plan. This gradually eroded both the autonomy of teachers that they used to enjoy in the status of a guru, and caused a change

in society’s attitude towards teachers who were no longer venerable, self-driven knowledge seekers and providers. Those in the job were there only because they couldn’t find anything better. Fear of getting a bad report from the inspector and losing the job turned them into perfect adherents of prescriptions which the inspectors insisted on being followed both in letter and spirit.

After independence, the functionary status of teachers has got further entrenched as the State regularly relies on and entrusts teachers with various sorts of responsibilities intended to further its own agenda. The task of nation building in the aftermath of the past in the name of regions, languages, etc. were passed on to teachers as their natural responsibility. The curriculum, syllabus and textbooks of the time lack authentic and meaningful participation of the teaching community in developing these materials which confirmed their functionary role in education where they were supposed to carry out the wishes and commands of the system. This is happening even today by covert and overt means, despite the explicit restriction imposed by the RtE 2009 on such practices.

The complexity of issues involved in education have attracted the attention of philosophers like Socrates and Plato, and philosophical practices of analysing ideas conceptually, assessing the arguments carefully and drawing finer distinctions with a view to avoid ambiguity^{xi} have been used by the analytical philosophers in the 20th Century to claim a professional status for teaching and teachers.^{xii}

This understanding of the importance of teaching and teachers has been voiced regularly in our policy and national curricular documents consistently since independence. As early as 1948 the policy makers were conscious of the fact that *‘people in this country have been slow in recognising that education is a profession for which intensive preparation is necessary as it is in any other profession’^{xiii}* And as recently as 2010 it was stated starkly – *‘Teaching is a profession and teacher education is a process of professional preparation of the teachers.’^{xiv}* These two quotes, having a time gap of more than fifty years, tell the story of what has happened to the policy intentions. On the one hand the functionary role of teachers has been maintained by getting them involved in all sorts of State’s function and on the other, their participation in decision -making be it in policy making, curriculum development and significant

school related matters has been kept to the barest possible minimum. Both the practices militate against teachers acquiring a professional status as desired by the policy documents.

Using the word 'professional' to refer to a teacher assumes several pre-requisites and characteristics of teaching and teacher like a codified body of knowledge, a community of practitioners, systematic preparation, etc. It also means that teachers provide an important public service and have a power over the life of the young people they teach. But *"the very systematicity that allows us to comprehend one aspect of a concept in terms of another will necessarily hide other aspects of the concept"*.^{xv} Using the word 'professional' for teachers hides the highly contingent nature of the act of teaching where apparently similar issues are to be dealt with in dissimilar ways. One of the major reasons behind this contingent nature of teaching is the nature of knowledge involved – it includes knowledge of the domain that is being taught/learnt along with the knowledge of fields like psychology, sociology, etc. These domains of knowledge are a highly contested area of specialized knowledge in which the teacher cannot lay any claim to be a knowledge creator but simply be a consumer of the established knowledge produced by the experts in the field. The conceptual metaphor of teacher as a professional thus *"hides that teaching involves a continual relationship that has at its center a young person's personal development, the multifaceted accountability relations inherent in teaching, and the public nature of the teaching's knowledge base"*.^{xvi} A large number of academicians' and practitioners' insistence upon using the metaphor despite its limitations can at best be understood as a rhetorical device which is believed to enable and empower teachers.

Yet another strand of perception of teachers is that of a salesman who is preferably looked upon as one who offers her/his services in lieu of the salary given to her/him. A teacher's work, though, is unlike other service providers in an important

respect. Service providers are sure about who their client is which is not true in case of teaching, who is the client - the child, parents, State, employers, or society as a whole as all are stakeholders in one or the other sense? This multiplicity of clientele with incompatible interests, more often than not, makes it difficult for a teacher to decide how to proceed to the task of teaching. Children are neither aware nor independent enough to state their expectations explicitly; though interests of children can serve as an indicator. In addition, looking at child as a client is against the fundamental tenets of the relationship between the client and the service provider being consensual as child cannot give his/her consent. The power relation between the child and the parents is always tilted in favour of the latter. Though the state has passed on the cost of education partially to the parents, it still maintains its stranglehold on education and teachers by managing the finances. However, parents, since they are sharing the cost of their child's education, are making increasingly greater demands on what a teacher should and should not do. Employers are exerting a very subtle but incisive influence on teaching as they are the ones who employ their learners – emphasis on *'skillisation of education'* should be seen in this context. One can easily appreciate the predicament of a teacher being torn apart by the pulls and pressures from different directions to which her/his theoretical understanding of education and teaching adds further dilemmas.

To conclude, it is difficult to assign a title to the teacher today. Firstly, she or he does not have the faith of the society required for a guru. Secondly, parents have become so demanding that he/she cannot be a functionary. Thirdly, professionalism needs much more time, resources and autonomy than teachers are given. Fourthly, she/he cannot be a service provider because of the multiplicity of stakeholders and incompatibility of their interests. It is important to clarify this ambiguity about who the teachers are and what their job is if they are to be efficient and effective.

References

- i Lortie, D. (1975). *Schoolteacher*. Chicago: University of Chicago Press.
- ii Rabelais, F. (1553–1564/1991). *Gargantua and Pantagruel*. Raffel, B. (translated). New York: Norton & Company.
- iii Rousseau, J. (1762/1979). *Emile: Or On Education*. Bloom, A. (translated). New York: Basic Books.
- iv Neill, A. S. (1960). *Summerhill: A Radical Approach to Childrearing*. New York: Hart.
- v Piaget, J. (1969). *Psychology and Pedagogy*. Paris: Gonthier.
- vi Rogers, C. (1969). *Freedom to Learn: A View of What Education Might Become*. Ohio: Charles Merrill.
- vii Lakoff, G. and Johnson, M. (2003). *Metaphors We Live By*. Chicago: University of Chicago Press.
- viii Donnelly, J. F. (2006). Continuity, Stability and Community in Teaching. In *Educational Philosophy and Theory*. Vol. 38:3.
- ix Kale, Pratima (1970). The Guru and the Professional: The Dilemma of the Secondary School Teacher in Poona, India. In *Comparative Education Review*. Vol. 40: 3. 1970.
- x Hansen, David T. (1994). Teaching and the Sense of Vocation. In *Educational Theory*. Vol. 44: 3.
- xi Phillips, D.C. and Siegel, Harvey (2015). Philosophy of Education. In *The Stanford Encyclopedia of Philosophy*. Edward N. Zalta (ed.). <http://plato.stanford.edu/archives/win2015/entries/education-philosophy/>.
- xii Calderhead, James (1994). Teaching as a Professional Activity. In Bourne, Jill & Pollard, Andrew (eds.). *Teaching and Learning in the Primary School*. London: Routledge.
- xiii The Report of the University Education Commission, 1948-49. Chapter VII: C. Ministry of Education. Government of India, 1962. p. 183.
- xiv National Curriculum Framework for Teacher Education (NCFTE) (2010). New Delhi: NCTE. p. 15
- xv Lakoff, G. and Johnson M. (2003). op. cit. p. 10.
- xvi Maxwell, Bruce (2015). 'Teacher as Professional' as Metaphor: What it Highlights and What it Hides. In *Journal of Philosophy of Education*. Vol. 49:1. p. 101.

Rajesh is a member of the Rajasthan State Institute team of Azim Premji Foundation in Jaipur. He has more than 25 years of experience in education. Prior to joining the Foundation, he was working with Digantar Shiksha Evam Khelkud Samiti, Jaipur, as Executive Director, The Academic Resource Unit (TARU). He taught English Language and Literature for nearly 20 years in different government colleges of Arunachal Pradesh and in Sana'a University, Republic of Yemen. He taught both undergraduate and postgraduate courses and supervised postgraduate and doctoral dissertations. He has various publications to his credit. He has a Master's degree in English with the specialization in Linguistics and a Ph.D. in English Language Teaching, both from Tilka Manjhi Bhagalpur University, Bihar. He may be contacted at rajesh.kumar1@azimpremjifoundation.org



SECTION B

From the Field





I Wish to Do a Lot

Kalu Ram Sharma

Often when teachers are being talked about, the picture that is presented of them is disappointing and negative – the image that emerges is that teachers in schools do not actually teach, they only appear to be doing so. The education establishment also looks at teachers with doubt. My experience, though, tells an altogether different story. Over the last couple of years I have been visiting some schools in District Khargon. The reason for these visits was trying to understand the conditions in which the task of teaching is done in classes. I also wanted to see for myself if there was some truth to the negative image that teachers have come to have.

Before proceeding any further, it needs to be underlined that I did not know any of the teachers working in the schools visited by me, nor did the Headmasters or teachers of those schools have any prior information about my coming.

It is noteworthy that the commissions set up in post-Independence India and all the policies that have been framed, have been making recommendations for the educational uplift of teachers. In spite of this we have not been able to implement the recommendations for the professional preparations of teachers. Also, the social status of teachers has been gradually coming down. Still, we do find teachers who are looking to their educational tasks with competence. These are teachers who give us the confidence that they can bring about a change in the educational scenario in government schools. And they look committed to this.

Here is a brief account of the work done in some of the schools:

When I reached the Adivasi school in District Khargon, the teacher was surrounded by children who were busy reading books of stories. These were students of Classes 3 and 4. The children who come here are from Phalya that is situated on a hill nearby. The teacher is quite enthusiastic. Even though we were strangers, she did not react to our being there. She was engrossed in her work with the children. The children, busy reading stories, would consult her whenever they faced a difficulty

in reading and she was helping them out. She was alert and conscious especially of children who lacked the courage to ask her something – and she would try to help them out.

We spent about an hour in that class. At the end of the period, we talked to the teacher who told us that she is teaching the children to read. In order to do so, the children will have to go through the process of reading. That is why she gave them books of stories to read. I was pleasantly surprised at this singular method of teaching adopted by her. I asked her about the practice, in most schools, of making the beginner-children memorise the English alphabet and the ‘baarahkhadi’ (the sets of twelve syllables in Devnagri). How, I asked her, could she teach them to read without first having made them read the alphabet? She responded with a question of her own – ‘How will the children be able to learn reading from the alphabet?’

I fell into thought on hearing this. It is indeed true that when we read, we are making meaning as we go along. Whatever a baby babbles, too, has some meaning. The process of the alphabet and ‘baarahkhadi’ that is followed in the primary classes is indeed meaningless. And in the context of language, we also know that the linguistic abilities are well entrenched in a child.

I also noticed that the teacher every now and then talked with the children and gave them opportunities to be in dialogue with one another, allowing them to converse in their own way.

It is indeed true that in language-teaching, along with reading and writing, dialogue is also of significance, for conversation is a powerful medium of expressing one’s thoughts. In this context it is important to give ample opportunities for this in the primary classes.

I went to the same school again – and again. Once I reached there at ten in the morning. The teachers were already there but the number of students was negligible. One teacher talked to another and they prepared to leave on a motorcycle. On being asked where they were going, they invited me also

to come along. Without any further enquiries I too accompanied them. They were going to Phalya, situated on the nearby hill, from where the children came. Parking the motorcycle at one place, they moved from home to home, encouraging the children to come to the school. They spoke to some parents too, requesting them to send the children to school. The teacher knew about the children who had not been coming to the school for long and so, specially talked to their parents.

Such was the effect that the children got ready to leave for school with their bags – the children walking in front, and the teachers following them on the motorcycle. The teachers told me that they make these trips to the community once or twice every week.

I found this process of bringing children to the school in the fitness of things. The fact is that this effort can be a lesson for the schools facing the issue of children not coming on a regular basis. What is striking about this whole effort is the fact that this is being undertaken without any specific orders from the Education Department for teachers to go to localities and bring children to the school.

I got an opportunity to visit another school. A child is at the centre of a school, but at the centre of

ensuring the quality of that school is the role of the teacher. I got a chance to meet a teacher who had transformed the very face of his school. He worked to make the campus of the school so beautiful and attractive that one could just not believe it to be a government school. A variety of flowers, ways for their irrigation, velvet-green grass and ample space for the children to play in – all this was there, and also special toilets for the girl-child and arrangements for drinking-water. Other teachers told me that this was a school with wild vegetation, the clearing of which was a Himalayan task. This teacher worked day and night to improve the campus and brought such healthy greenery to it. Not just this, he established a laboratory wherein one can experiment on all the themes related to the subject of science at the secondary and high-school levels. The teacher collected alternative teaching-learning materials and journals that are given to girl-students regularly for reading.

Teachers are continuously making efforts in the direction of making the school better. They work contrary to the belief that the environment of a government school cannot change. They believe that if the teacher so wishes, no task related to education is impossible to do.

KR Sharma works with the Azim Premji Foundation at Khargone, Madhya Pradesh. He previously worked at Eklavya, Hoshangabad for 20 years. He was on the editorial team of 'Shiksha ki Buniyaad' a newsletter of the Foundation. He frequently writes on topics of education and society and has authored a book for NCERT and NBT. He may be contacted at kr.sharma@azimpremjifoundation.org



If the Destination is Emancipation of Teachers then One of its Major Routes is Reflective Practice

Some Insights from Personal Experiences of an Education Worker

Kuldeep Garg

The Problem

Any professional development of teachers requires a continuous support¹ at various stages of teachers' careers, but in India today we have seen the dismal conditions of all such support both in their availability as well as their quality. Another interesting aspect is that wherever such support, particularly good interventional, fixed-time support is available, two things have happened. The first, its effectiveness stagnates after about five years, second, when the project winds up, the new initiatives and practices dip significantly and gradually die out. So external support neither works for a long period nor does it sustain its initiative and accomplished changes when it gets closed down. At least, I have personally observed this (being a part of different teams in Digantar²) in the fields throughout particularly during the last decade (2005 to 2012) with regard to different interventional projects viz. Shiksha Samarthan Pariyojna, Phagi and the Quality Education Programme, Baran.

These observations raise the question – can outside support promote sustainable educational change?

We do not have any definitive answer to this question. However, it seems that, at least in its present model, the initiatives and achievements from exogenous support mechanisms usually fade away gradually soon after their closure.

However, it does not mean that we should stop visualising and implementing them- that would be suicidal. In a democratic country the participation of volunteer organisations, parents associations, NGOs, teacher unions, research groups and cultural groups is vital to a vibrant as well as healthy education system. Outside support and intervention are crucial and a logical necessity in a democratic country to keep a sharp eye on the

developments in educational policy and practices and raise its voice as and when they deviate from their foundational values- values to reproduce the democracy and sustain it.

Therefore, it seems appropriate to think of having such support mechanisms but in different mode with different set of objectives, which focus on creating conditions wherein teachers and other stakeholders come forward and take the charge of their learning or professional needs and their development. They themselves could see a problem or area of the development, visualise its solution and implement it too. That will be a self-propelling and hence self-sustaining mechanism instead of depending completely on external support and finally not owning the result. This can only be developed and maintained by those stakeholders who themselves are self-learning, self-correcting, self-determining, help-seeking and accountable people.

If we agree with this formula, then the question arises: how is it possible? How can we have such people or stakeholders? What would be the processes of their development? What would the role of external support then be?

Experiences and insights culled from a participatory Action Research Project

I. Understanding the Project First

With all such questions as mentioned above, I would like to share some of my experiences and acquired insights here in order to arrive some answers, which might be very localised and do not give a sort of grand general answers of these questions. At the same time we cannot deny that even local experiences provide us important theoretical insights necessary to generate a plausible theory of certain phenomenon of education in the long run.

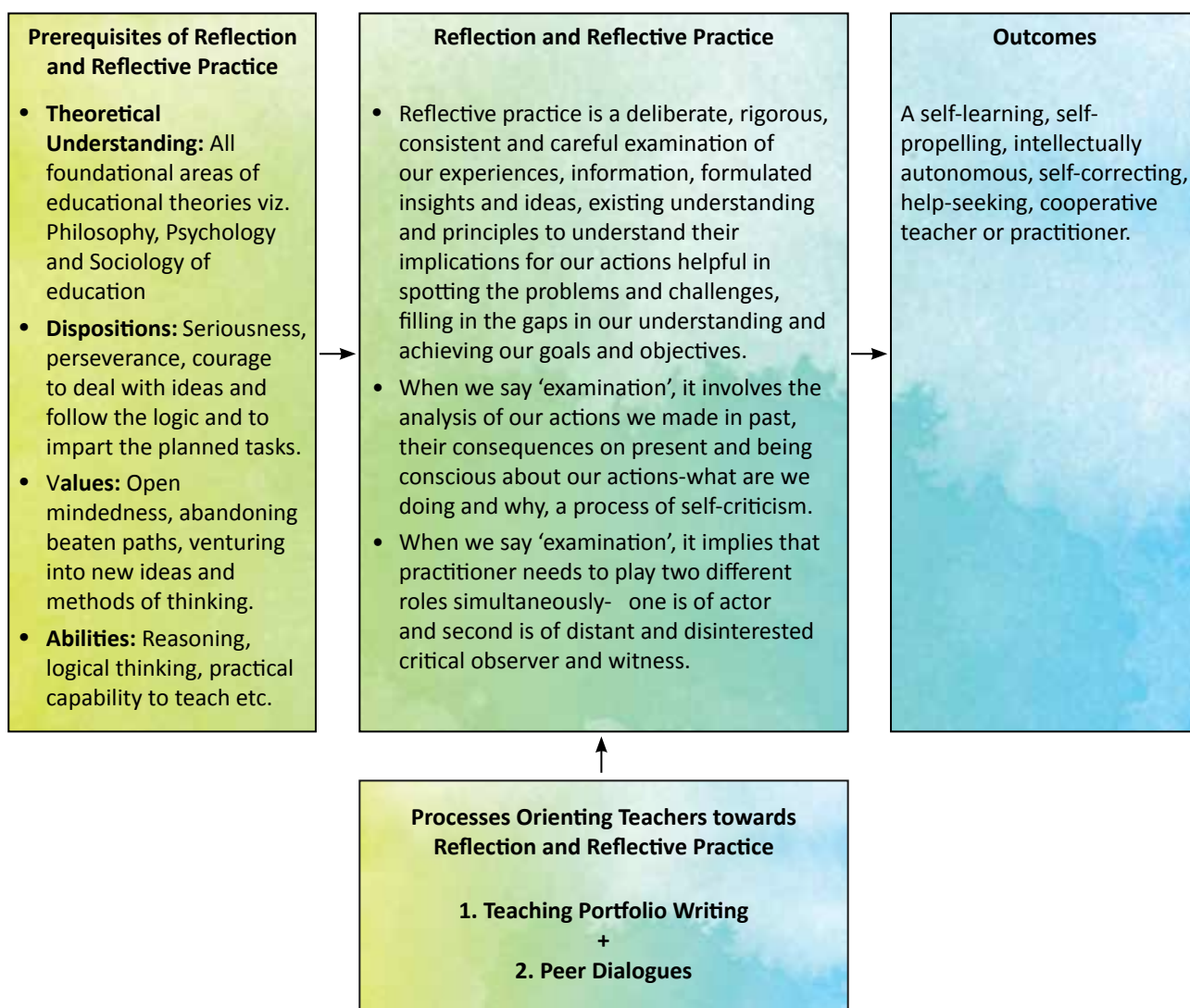
¹ Such support comes largely in the following three different forms: i). pre-service teacher preparation programmes that shall construct a foundational understanding of education and inculcate various abilities and dispositions required for good teaching and managing school life; ii). regular in-service programmes which shall help teachers in finding a platform wherein they can discuss and address the various problems and challenges they face in their professional practice; and iii). other various interventional supports through different governmental or non-governmental or volunteer projects which again shall aim for helping teachers and schools with regard to their academic, systemic and infrastructural problems or challenges.

² Digantar is an NGO who works in the field of Elementary Education. It also runs few alternative schools. It is located in Jaipur and further details about it can be accessed on www.digantar.org.

Digantar initiated a Participatory Action Research (PAR) project called 'Teacher Empowerment Programme' which ran between 2013 and 2016, with 30 government teachers and a team of three researchers from Digantar in Phagi block of Jaipur district, Rajasthan of which I was a part. This was a collaborative effort of the Rajasthan Government, WATIS (Wipro Applying Thoughts in Schools) and Digantar. The aim was to get some plausible answers on how teaching portfolio writing, followed by regular peer dialogues could help the participant teachers in being 'Reflective Practitioners'. It is to be noted very carefully that this research project had fundamentally assumed that teaching portfolio writing and peer dialogues could initiate the process

of reflection and reflective practice could transform a teacher into a self-learning, self-correcting, self-determining, help-seeking and accountable professional- the same kind of stakeholder which we need to develop a self-propelling and self-sustaining system of education.

Before embarking upon the findings of this project and my experiences, we need to understand the project's theoretical framework so that we can connect it with our context as well as appreciate its overall objectives and the means to achieve them. To make it easy I have tried to describe it with a diagram below:



This diagram shows us that how this project visualised a systematic mechanism that may transform a teacher. This mechanism visualised in the project seems to have the following crucial interrelated elements:

i). Writing and dialogues with peers may appear to be a simple thing but are actually very demanding and can transform a person if practised seriously. To write and discuss critically about your and others' practice in classroom compels you to think a lot before, during and after acting on various issues- what did I do in my class today? Why did I do it, how and in this manner? How will these things help my students in achieving curricular objectives? How do I know that they have achieved it? Why those students were not participating properly? All this actually pushes the practitioners to locate their entire work in larger context of theoretical realm- who am I as a teacher? What are my roles? Why am I here? Why we are educating our generations? It gradually becomes a two-way process: You work as an actor as well as you work as an observer, witness and a critic of your own work. It pushes you out of the terrain of a mechanical doer and leads towards a mental state where you become aware of you, of your work, of your objectives, of your ways to achieve the same and all those things which still troubles you and/or helps you- you become a conscious practitioner.

ii). Writing and dialogues are like a craft which can be learnt and mastered only by acquiring certain theoretical understanding of education (e.g. understanding of human nature, nature of society, nature of human knowledge and learning, etc.); dispositions (e.g. seriousness, perseverance); values (e.g. abandoning beaten path, open mindedness); and abilities (e.g. logical thinking, ability to teach). Therefore, if someone wants to write and dialogue on her own educational practices; she needs to work on orienting herself towards the foundational theoretical discourses since a theory like a torch which sheds a beam of light on the dark and make things visible to you. Simultaneously it is like a tool box containing various tools that help you to deal with all of your professional needs. Any serious professional practice is necessarily based on an integrated repertoire of various theoretical discourses.

Therefore, a strategy was adopted in this project. Firstly, lot of emphasis was put on the value of bridging the gap between everyday life experiences and theory. Both of them need to be incorporated in each other and pondered upon in teaching portfolios and dialogues. Experiences need to be looked at through the lenses of theory and theory

need to be put into the action to see its effects and feasibility. All participants of this project were asked to theorize their experiences and practice and articulate in written all those implicit theories which guide their practices. Secondly, whenever some problem was encountered, some appropriate theoretical literature was consulted and tried to acquire some insights out of it. Similarly, the logical consistency in arguments, openness for the valid criticism, innovativeness and serious commitment to the endeavour of pursuing the problems were valued throughout.

In brief, this project believed that writing teaching portfolio and peer dialogues on the same, if done properly, can produce certain irreversible intellectual changes among the practitioners. And these changes are nothing but the theoretical sensibilities, values, dispositions and abilities which are necessary for a reflection and reflective practice. Such changes were being visualised irreversible because once you got a knack of them it is hardly possible to unlearn them; no matter whether certain help is available or not.

II. How Did This Happen?

May be this is not the space wherein all the processes can be described in details. However, it will be useful to know that we started with 30 teachers as a group but eventually we could constitute an active team only by 20 of them. All of them together wrote about 70 teaching portfolio entries on various issues of EVS, Language, Maths teaching. During a period of 3 years (April 2013 to March, 2016), this group held 08 peer group meetings to discuss the portfolio entries and emerging issues. Everything was kept minimal from Dignatar's side deliberately. Almost everything was left to be done by the group only on their own so that an ownership as well as self-sustaining ethos could be developed. However, it was done in a gradual fashion. Initially, a rigorous support was provided by some team members (especially who were from Digantar) to help the group in developing frameworks of teaching portfolio entries, etc. Other crucial factor was the provision of one day space (even if it happens monthly) for organizing peer group meeting at Phagi. This was the space which was provided by education system which can again be considered as minimal.

III. What Are the Outcomes Finally?

My personal experiences as well as analysis of team of the project confirm various positive outcomes. Some of the major and most crucial findings can be understood as follows:

a). I have personally followed the trajectory of individual members of the group what they took throughout the journey of teaching portfolio writing as well as participation in peer group meetings. This trajectory shows a shift in various things. If you take the first portfolio entry and compare it with the last one written by any member of the group, it shows that ability to penetrate the educational reality of the members was enhanced. In starting, they were able to capture their classroom experiences but only to a superficial extent: What they planned? What did they do? What happened today?, etc. The description of “why” questions were almost negligible. However, by the end of this project, members were oriented themselves to think in terms of “why” questions: why after all shall I teach this? why am I doing this? why education? why am I a teacher? This indicates towards their acquisition of a disposition of theorization as well as a critical eye to their practices.

b). Analysis shows that initially the members were more focused on “in-action” (during teaching) mode of thinking and practice. However, gradually their focus seems to be expanded beyond it and they started doing “before-action” and “after-action” mode of thinking too. This was the framework of teaching portfolios which demanded to write their plans, its transactions, and its evaluations. Therefore, a cyclical mode of reflection on teaching seems to be emerging throughout which indicates an emergence of “actor” and “observer” disposition among the participants.

c). Peer group meetings proved to be very useful. Just a place in a month or two wherein teachers can gather together and discuss their experiences may emerge a very crucial space. I myself have observed that such gathering do various things. Gradually, people start coming forward with their unique personalities embodying all very peculiar experiences and problems they have been engaging within their professional life. Over a period of time, we all observed that many common strands of problems, belief-systems, perceptions and experiences are becoming prominently obvious to everyone in the group- a sort of collective consciousness of educational practices and problems seems to be emerging throughout the meetings. This I believe is very crucial and perhaps very fundamental stage to be acquired which help in developing those ethos and concerns which lead a group toward a self-sustaining group. Such a collective awareness is perhaps a first step towards self-sustainability.

Conclusion

Perhaps more crucial insights and sensibilities could have been acquired through this project if it would have continued further at least for few years more. However, whatever insights we could acquire through it are more or less enthusiastic and very positive. Perhaps, a space in the form of a monthly meeting (a very minimal expectation from system) and teaching portfolio writing wherein teachers and other stakeholders can gather together and can constitute a group who study, discuss, debate and question their own practice may help teachers in acquiring a repertoire of necessary irreversible intellectual abilities and dispositions which emancipates them from any dependence and help them to be a better professional practitioner.

Man of responsibilities: story of a passionate head teacher

Mohammad Zafar



NCF 2005 talks about role of teachers in providing a healthy space for learning and sharing, understanding problems of students, supporting them by various ways and more than that giving them a free space to express, enjoy and learn. Various thinkers and educationists believe that freedom and fearless atmosphere along with a healthy environment of resources and TLMS strengthens learning atmosphere of a school. Bringing all such important inputs in a school is responsibility of all teachers of that school and especially head teacher's role becomes more and more important in this regard as s/he can generate a positive path for whole school. Recently in the block where I work, an energetic head teacher got retired from his work and along with me, most of the persons who know him are missing his presence in that school and other meeting platforms where he was always very active and vocal. Mr. Satyapal worked as a head teacher in upper Primary School, Sunali of Purola block (Uttarkashi), before this school wherever he worked he made a good bond with community and his farewell party proved about his Bonding with Sunali village too.

That was a session of In-Service Teachers Training when I met him first time, he was so energetic in participation in that age when he was just two years back to his retirement. He did acting in a short play based on the need of session, he was vocal on all important inputs in discussions. After Interacting with him in the lunch time I found him interesting as he was discussing about teaching-learning problems in schools and the quality of in service teachers training. On a discussion about problem of adolescent age he said that we should discuss issues of adolescence with students, this time they need some important care. We should talk about changes of body, we should intermingle boys and girls to make them good companions otherwise this age creates several mental issues for adolescent students.

After some months I got a chance to visit his school. The school was looking normal as any other school but talking to students gave me a glimpse that students are very interactive along with

respect and academic interests. Their freeness also showing that their teachers don't trap them in hard discipline. That day I was conducting a session on litmus paper test of acidic and basic substances with students and being a head teacher he supported me in every step, brought litmus paper from Almira, was standing with kids and motivating and praising them when they were doing litmus paper test.



Mr. Satyapal with his life partner Ms. Shimla Devi, on his farewell day.

He gave me good quantity of litmus papers and said "sir give them more and more things to test. We have enough quantity of litmus paper. This is for students only and it's good that they are using it.

He always used to take part voluntarily in all activities of school. Either subject related or other events such as a Maths fair, farewell of eighth grade students, etc. When one year was left for his retirement he said "*I don't see it as one year, I see it as 365 days*" His passion was reflecting from this statement. One day I found he was busy in developing PPTs and doing voiceovers for a ppt which he had developed based on the activities of textbooks. He collected pictures of vegetables, fruits, body parts, etc., from internet and made a ppt and then wrote English and Hindi meanings of content in that ppt and then by voice over explained English and Hindi name of the fruits. This is just an example to show that he made several ppts and videos on textbook exercises of English and Hindi, difficult words, tenses, grammar, etc. According

to him he uses technology to modify the content of chapters in an interesting manner. Each class comes for a period in that TV/computer room for this video session. Another day his colleague was working for organizing a *Maths mela* in which they all had invited other school teachers, he was cutting chart-papers, cardboards, thermocol along with his companion Chandrabhushan Ji (Maths teacher) to make Maths puzzle & TLMs. He always supported his team who is equally energetic.

This school shows a picture of collective and collaborative work where teachers and head teacher work as a unit to give their best for the students. He was a regular visitor and participant of TLC events of Azim Premji Foundation and always ready to read and learn more and more. Not only this, everyone in Cluster and teaching community always showed respect for him. Recently he got *Rashtrapati Puraskar* for good organizing of *Jan-Ganana* in his place. Talking about his motivation he said that he thinks that he should work best for students because of them he has a job and it's his duty to serve his job honestly and to do something for students which are not well enough in background¹. On holidays also he engages himself to visit schools of his hometown and discusses with teachers about improving education quality and motivates them.

Unfortunately I was busy in some engagements and missed his farewell. After sometime when I visited his school I talked about his absence. Bhajan Singh Ji (a teacher of Sunali upper primary school) told that it was 8-10 years old journey and we were very comfortable with his presence because we knew that he'll manage everything and now it's difficult to manage things suddenly without him. We are still not believing that he's not in school. He told that still he asks about files and documents and he (Satyapal ji) tells him each and every step and helps in finding documents via telephonic conversation. Another madam sitting there said that he gave exact locations of files by his pen-drive (in which he has saved important folders of computer in similar way) when we were struggling to find hard copy of it. And it seems that still he is supporting us from far.

Interacting with students about him was very emotional. Students said he never talked strictly to anyone and he always said to be punctual. He himself followed it and even in rain also he used

to come on time. He was head teacher but in all activities he used to support everyone. One girl said *we'll always remember him as he always treated us like his own kids*. Interesting thing came to me when I was showing them onion peel cells by microscope and they said we had seen it earlier. I asked "who has done this exercise with you?" They said head sir (Satyapal Ji). So onion peel activity was also performed by him among students along with other science sessions. He always gave space to students to express their thoughts. According to his colleague Bhajan Ji *"he was a different type of person and I learned to react calmly on every situation from him. Still I lose my temper some time but he was always cool on every discussion and talk, I think he was a different and one of unique persons His absence always gives an emptiness and it's difficult to get a colleague like him"*. When I interacted with more students and asked them how they feel after his retirement, they told me that they all cried on his farewell and they all miss him. One girl said he never talked roughly and supported us on every front and gave example of one cultural event for which he bought artificial jewels by his own contribution and made other ornamental stuff with students. In that block almost every teacher knows about him and his contributions in nurturing his schools, either his previous schools or UPS Sunali. His initiatives not only gave a shape to school but developed a culture of cooperation, sharing and openness.

There is a common saying *"where there is a will, there is a way"* means when we work for a cause and do it honestly things become smoother and people also come forward to support us. Similarly, when Satyapal Ji developed a healthy atmosphere of school and nurtured it along with his team, other educational officers and team supported and appreciated his works. According to him *"without community's support nothing is possible in school development and village community has always supported me"*. He gave an example that when he agreed for computer application and learning programme that time electricity was also not there in school but he assured officers that they should send computers and he will arrange electricity. He talked with Pradhan of village and other members to resolve the problem of electricity and just in one day village Pradhan arranged electricity pole and community provided electricity connection to

¹ Uttarakhand: *Ummeed Jagate Shikshak*, Azim Premji Foundation.

school, to ensure successful running of computers. His School Management Committee had once got prize for good management. Another example is related to school's building which was near to forest land and two times in strong wind pine trees fell down on the building and fortunately that time the school was off. Because of Satyapal ji & community's request Sarva Shiksha Abhiyan officers approved the construction of new building. Not only this his applications and demands of computer, television, etc. was fulfilled by system. In addition to this, his work was recognized by Azim Premji Foundation's team and not only an article has been written on his journey in *Uttarkhand: Ummeed Jagate Shikshak 2* (an Azim Premji Foundation's publication to highlight teachers who are working passionately in different districts of Uttarakhand) but the whole village, teacher community and Azim premji foundation members of Purola gave a farewell to him on his respect and honor. His efforts are like counterpoints for those who make a generalized notion that government schools and staff are effortless and lack passion.

As John Holt has written in his book "*Underachieving school*" that there should be a relation of respect among teachers and students and they should be given space for expressing themselves. By his efforts we can see example of healthy relationship among students and staff in Sunali upper primary school. I had an experience of my school's principal sir who was extremely rude and hard core discipline and punishment on rule breaking was his first priority.



Gathered villagers for his honor on his farewell day

But when I saw Satyapal Ji's school's discipline and his friendly relation with students and colleagues I discovered that kind of discipline which NCF 2005 says that *Discipline should be for enhancing freedom, options and autonomy among teachers and students. And students should be included in rule making so that they will understand the reasons behind the rules and feel their responsibility of maintaining norms* (NCF , 2005). Here Point is to not punish students but to develop an ownership in being responsible by self-discipline. By this they can be exposed to way of doing democratic decision making and will learn ideas and codes of self-rule (NCF , 2005).

A farewell given by villagers

Every year he and his colleague teachers, Chandrabhushan ji & Bhajan ji give farewell party to eighth class students by contributing their own money and organizing special lunch. Students and villagers also maintained that culture and almost more than half of villagers came to wish him for his next journey. Unfortunately as I told above that I missed his farewell but my colleague told me that villagers had come along with drums and trumpet to give him honor, they gave gifts such as *Rajma Dal*, fruits of their orchards, etc to Satyapal ji. Former colleagues, staff of Sunali primary school and several other people were gathered there with best wishes for their beloved Head Saab Ji. Students and colleagues cried when they were sharing moments of togetherness and He himself cried on that emotional moment. His colleagues along with students also gave him best wishes with their wet eyes². What he left a legacy of being responsible, humbleness and togetherness. Still from his hometown Saharanpur he talks to people and shows interest to come back for workshops and trainings. People like him do their work honestly without pressurizing anyone and because of their honesty and passion others also learn several things. For me at least this was a best example of what a head teacher can do for the school and community without making hard discipline, giving punishment and pressurizing teaching staff.

² Thanks to my colleague Anup Dubey for giving me details & pictures of the farewell.



Teacher Learning Centre: An Effective Space for Teacher Development

Rudresh S

The quality of a school depends on the quality of its teachers. What students learn in schools is directly associated to what and how teachers teach. What and how teachers teach, in turn, depends on the teachers' knowledge, skills, motivation and commitment. If school teachers are expected to bring about significant changes in their approach of teaching, the same change must precede and find a place in their pre-service education and programmes for in service professional development. Many teachers in government schools are willing to enhance their knowledge, learn new things and adapt changes as per the changing demands of classroom. A large number of government school teachers are serving in rural areas. It is necessary to examine the facilities available for such teachers to upgrade their subject knowledge and receive support in addressing day-to-day academic challenges. It is also essential to understand basic mechanisms established to provide academic support to teachers.

In fact, one could observe that there is little space for teachers for academic development in their workplaces, with the the only official activity addressing teachers' professional development being training programmes under Sarva Shiksha Abhiyan (SSA), which are broadly organized in discrete manner. The accountability of government school teachers is a hot topic of discussion today, especially in the background of lower enrolment and retention rates. The professional capacity of teachers plays a key role in enhancing their accountability.

Formal training and workshops include the ongoing efforts of teachers' professional development. These training sessions are organised in two or three batches in a year on specific content. However, apart from the cursory treatment of the content, such training sessions often have no space to discuss the need of the teachers, classroom problems and the perspectives of education and nature of a subject with little connection being established between the content discussed in two successive training programmes. Quality teacher development requires more than couple

of sessions of training per year. Providing space for formal and informal interactions for teachers along with continuous nature of engagement based on the needs of the teachers would speed up the process of development. Also, training would become more effective when teachers identify the topics that need to be learnt and make autonomous decisions on whether or not to engage in professional development.

The Azim Premji Foundation conceived the concept of Teacher Learning Centre (TLC) to provide a free and voluntary space for the development of teachers and was part of its strategy to engage teachers in a continuous process of professional development. The physical space of TLC is just a skeleton which creates an ambience of learning, but the life breath of a TLC is the human interactions taking place under its aegis. The TLC model is a bottom-up approach to professional development, as opposed to current in-service programmes. The first TLC was established in Shorapur block of Yadgir district, Karnataka in 2009. Now the TLCs are spread across all the six states where the Azim Premji Foundation operates, with 72 of them in 44 districts across the sub-continent, mostly in rural locations. Our experience in the field of teacher professional development confirms that TLCs are the most consistent and cost-effective method to reach out to and academically engage teachers. Therefore another 60 TLCs are planned to be established in the current academic year and in next few years over 300 TLCs will be established across the country.

What is a Teacher Learning Centre?

- TLC is an open space that provides teachers formal, informal and non-formal opportunities for engaging with their subject. Its library of academic resources, with access to all these resources includes books, science laboratory apparatus, mathematics kits, computer with internet facilities and other Teaching Learning Materials (TLMs).
- TLC creates the space for the professional development of the teacher community by

promoting peer learning, self-learning and expert-driven learning.

- This provides opportunity for the teachers to sharpen their conceptual, technical and human relation skills.
- TLC also acts as a non-formal space for teachers to share their experiences and learn from each other.

Available academic resources

The following resources are usually available in a TLC:

Books and journals – content, reference, stories, encyclopedias, dictionaries, educational reports, educational policy documents, magazines, newspapers

Apparatus and TLMs – equipment which can be used to enhance learning in chemistry, biology, physics, geography and astronomy

Raw materials for developing TLMs – which can be used by teachers for developing TLMs for classroom use

Digital materials – Computers with internet access, e-resources (soft copies of articles, videos, academic interactive software, academic videos)

Materials for leisure and entertainment - shuttle cock, volleyball, chess, carrom etc

Human resources – Subject resource persons and resource teachers

How does a TLC operate?

TLCs remain open from 4.00 pm to 8.00 pm on weekdays, and from 10.00 am to 8.00 pm on weekends for teachers to use the facilities in their spare time. Activities of both formal and informal nature are organised. The workshops, seminars, conferences and subject specific exhibitions of classroom projects by children of a given geographical area constitutes the formal activities. Casual visits, borrowing of materials, voluntary teacher forums, peer discussions, evening discussions, self-learning etc. are classified as informal activities. The Informal space creates continuity, connectedness and addresses the need-based enhancement of teachers' knowledge, attitude and skills.

Regular workshops are organised in TLCs. Some workshops last for a duration of up to five days. Such workshops attempt to provide deeper understanding on the topic and encourage

teachers to reflect on their learning. Seminars and conferences organised regularly encourage teachers to conduct research and present their paper and assist them in their interactions with subject matter experts.

On an average ten to fifteen teachers visit each TLC every day to read, borrow materials for the classroom, use the internet and interact with peers. A Voluntary Teacher Forum for each subject is organised every month on a scheduled weekend. These forums help 20-25 teachers of a specific subject to gather together and explore a topic using the resources available in the TLC, with a resource person from the Foundation often moderating. A typical forum lasts three to five hours. Evening discussions, which attempt to throw light on broader educational discourse, are another way of engaging teachers for shorter periods (two hours per session), with teachers having read selected articles to deliberate on the same in the discussion. TLC resources are also used to prepare for the next class.

TLCs as learning hubs

TLCs have developed as learning spaces where teachers from a particular town come together to learn about topics identified by the teachers themselves. They also prepare the schedule for evening discussions and voluntary forums. Apart from preparing notes and conventional TLMs teachers have developed video films for classroom use. Working in groups encourages bonding among them and this helps them learn to from one another.

Continuity and relevance

The activities of TLC bridge the gaps in teacher training common in government schools. TLCs supplement the workshops with appropriate academic inputs. Teacher development interventions have to be a continuous process of engagement and demands continuous feedback and regular reflection. Disconnected and compartmentalised training limits the assistance teachers might need to understand a concept completely and then impart it effectively in the classroom. Often the topics considered for formal training are themselves disconnected from the classroom needs of the teachers.

These sessions may not always help teachers develop their skill sets holistically. Therefore, teacher development programmes need to be contextual, relevant to geographical and individual

needs and also provide the chance for continued development through non-formal means such as self-learning, peer learning, guided learning, need-based discussions, demonstrations etc. The content of the training needs to be imparted using multiple modes (not exclusively the lecture mode).

Engaging with available resources

TLCs have enabled teachers to access both physical and digital materials and, further, encouraged them to utilise additional resources and TLMs in the classroom. Materials available in the TLCs are systematically organised to help teachers to identify the right equipment for a particular lesson. All the materials are procured after mapping the same form the formal curriculum/syllabus of the primary schools.

The most important aspects in the TLCs are, firstly, the academic activities in the centre and secondly, reaching out to teachers. There may be many activities, which are not academic in nature, such as sports, reading newspapers, watching non-academic videos, chatting with each other on general topic, etc. While formally scheduled academic activities are the nucleus of the TLCs, informal discussions on understanding education, children, school, learning, teaching, content, pedagogy allow teachers to connect to their role and to practice/apply the lessons learned in the day to day work of a teacher. There could be peer groups meeting regularly at different venues, such as the local tea shop, temple, campus etc, or organising programmes for themselves such as seminars, discussions etc. Visiting schools with books and TLMs, encourages interacting with students and later with teachers. Once, few teachers start coming to TLCs and feel interactions in the TLC adds value to their professional development, they bring more teachers.

The following is some of our learning from operating TLCs

- The utilisation of the TLCs is optimum when it is located in an area where more than 100 teachers reside.
- Teachers residing within three km from TLCs access them more frequently. It is essential to provide open access of all materials.
- Quality learning environment such as sufficient space to sit, clean environment, drinking water, toilet facilities, quality learning materials, books from diverse genres, computers, continuous power supply and recreation and leisure equipment, along with resource persons on each subject are essential for the success of the TLCs.
- Teachers volunteering with a sense of accountability towards their professional development create vibrancy in the TLC.
- While TLCs can be an integral part of teacher development activities, they can also function in isolation.
- Activities in the TLCs need to be directly connected to classroom demands and must promote professional development of teachers. Only then teachers be encouraged to continuously visit the centre.
- TLCs need to upgrade regularly based on the need of the hour.

Teacher Learning Centres are an effective method for engaging teachers as they make teachers voluntarily accountable for their own professional development. There are many anecdotes describing how teachers took up the task of their professional development. A study conducted in Yadgir district has discovered that TLCs have brought positive changes among teachers. TLCs encouraged teachers to upgrade their subject knowledge and adapt more child-friendly classroom practices in everyday school life. Hopefully, the continued use of TLC will result in the enhanced quality of learning outcome among students.

Rudresh leads Azim Premji Foundation's District Institute at Yadgir and Kalaburgi, Karnataka. He has a Master's degree in Social Work from Gulbarga University and has been working with Azim Premji Foundation for the last thirteen years. He has been responsible for conceiving and implementing the efforts of the teachers' and functionaries' capacity building, as well as managing government relationships. He may be contacted at rudresh@azimpremijifoundation.org



Re-structuring In-service Teacher Professional Development: Focusing on Pedagogical Content Knowledge

Saurav Shome

Thinking about re-structuring in-service teacher professional development (TPD) is not new in either the Indian or the global context. The vision of setting India's destiny in her classroom articulated in the National Commission of Education Report 1964-66 (NCERT, 1968) shows the nation's expectations from the classroom. To make the expectation a reality, there have been several efforts made at multiple levels. One area of concern that strongly emerges is improving the state of teachers' professional development both at pre-service and in-service stage (NCTE, 2009). There is no doubt that the lack of adequate logistic and human resources negatively impact the quality and effectiveness of the In-service teacher training. However, I claim that this is only one version of the story.

To unearth the other version, it is important to ensure our understanding about teaching as a profession and the professional needs of a teacher. Shulman (Shulman, 1986; Shulman 1987) has written in detail about knowledge base for teaching profession. He also talked about how the professional development programmes fail to address these elements with care and wisdom. According to him, a teacher's knowledge base can be divided into three major areas: content knowledge, pedagogical content knowledge (PCK), and curricular knowledge (Shulman, 1986).

In this paper, I will first make an attempt to unfold the meaning of PCK, the elements of PCK, and their implications in structuring in-service TPD, and finally some suggestions to ensure PCK in in-service teacher professional development program.

What is PCK?

Pedagogical content knowledge, or PCK, is neither only content knowledge nor only pedagogical knowledge, though both these knowledge domains are equally important for teachers. PCK is knowledge of pedagogy for a particular content (Shulman, 1986).

According to Cochran and her colleagues, pedagogical content knowledge is a type of knowledge that is unique to teachers, and in fact

is what teaching is about' (Cochran, DeRuiter, and King, 1993). Most of the policy discourse and curriculum of teacher education assumes that having general pedagogical knowledge and content knowledge is sufficient for teaching in a classroom and there are some clues in support of existence of such ideas.

For example, in in-service teacher professional development programmes the trainers of the program are usually selected on the basis of their academic qualifications and the level they are teaching. More, specifically, a master trainer would have higher degree in, say, general psychology (or any other subject) than the participants. Another manifestation of such ideas is sending the teachers to institutes of higher studies as part of a refresher course to enhance content knowledge. These components have value in their own area, but are of limited use for teachers in the classroom.

The concerns raised by practicing teachers in in-service teacher professional development platform echoes the need of integrating pedagogical content knowledge with the programme. From my personal experience, I have observed that teachers ask for suggestions on strategies so that students can perform activities and develop capabilities such as reading, writing, comprehension, problem solving in mathematics, or be able to answer questions posed to them. Even teachers would ask for strategies that would enable their students to perform better in examination. Some teachers would have challenges at a more rudimentary level, as for example, how to teach reading, writing, and basic operations in mathematics to the students.

At the next level, teachers ask for specific pedagogic strategies to teach a particular concept to a group of students: for example, a teacher might want to know how children could be made to understand concepts of fraction, Newton's laws of motion, evolution, living and non-living things, moles, motion of planets, global warming, pollution, weather and climate, colonialism, neo-liberalism, conflict to name some. Responding to these questions is not possible from expert

understanding of education or of the subject alone - an expert in the theory of relativity or quantum mechanics will not be necessarily able to tell the ways we can teach Newton's laws of motion to the students at the middle school level. Similarly, an expert in cognitive psychology might not be able to suggest the pedagogy for the same.

Elements of PCK and their implications in in-service TPD

PCK can be divided as having three components. One is the ways of representing the subject or content so that students can comprehend. Interestingly, there is no single way of representation of a particular content. Therefore, the teachers must have a repertoire of several forms of representation. Knowledge about these forms can be gathered from research literature and the "wisdom of practice" (Shulman, 1986; p: 9). Here, practicing teachers are in better position than teacher-students in pre-service programme in terms of having rich wisdom of practice.

The second element is the teacher's understanding of the existing ideas of the students about the content of the particular topic in question. A bulk of research has been conducted around the world and documented in the last forty years which shows that students of all age, teachers, and teacher educators have several alternative conceptions. These alternative conceptions are universal in nature and difficult to eliminate through traditional teaching. Some of these are found through the history of the development of the discipline and even considered correct in the past. It is even more interesting that sometimes even experts hold these views (Jammer, 1962).

One way to look forward is by bringing discourse with teachers around the topic specific alternative conceptions. It is important to appreciate that alternative conceptions are present among the students of all social category. Knowledge about alternative conceptions about a particular concept point out the roots of students' errors, mistakes, difficulties, or even dis-interest to learn further.

In addition to that, having comprehensive understanding of alternative conceptions help structure the appropriate pedagogy and design assessment tasks. And this leads to third element of PCK. Third element includes designing appropriate pedagogy to address the specific alternative conceptions and build more accepted

conceptions. Here, like the first element, there is no single pedagogic intervention. A set of strategies or combination of these in a given situation can be tried out with the students.

Ensuring PCK in in-service teacher professional development program

In this section, I am proposing a model of engagement with in-service teachers in order to ensure the three elements of PCK discussed above. As I have discussed above, there are three distinct elements of PCK for a particular concept or content: (a) knowledge of multiple representations, (b) knowledge of students existing ideas, (c) knowledge of pedagogic strategies to build upon the concepts on students' existing ideas.

Knowledge about all the three elements can be constructed from research literature and wisdom of practice. At this stage, it would appear simple to conclude that these three elements need to be addressed in in-service teacher education. Interestingly, the story does not end here but begins from this point. Published research on students' existing ideas on different concepts in Indian context is limited and not always suitable for use directly in TPD programmes. One reason for this is their technical nature and, therefore, low readability and the second reason is inadequately addressing all the three elements in one document.

To begin with, while the teachers' rich classroom practice is a resource in in-service TPD, there is a limitation which is that teachers, like students, also hold multiple alternative concepts on the same topic.

Here, I am proposing a set of elements to include in in-service TPD. These elements are not independent of the structural processes we follow in the existing model of TPD but rather ask a systemic and fundamental changes in the processes too in order to include PCK in the existing TPD.

Some fundamental changes are required to be made in the in-service teacher professional development program in alignment with the nature of knowledge source for developing PCK. This can be done by constructing the knowledge base of TPD on three elements mentioned in the beginning of this section. This knowledge base can be gained from at least three sources.

One is, studying existing literature specific to a topic/concept and prepare a set of modular write

ups in a readable format for teachers and teacher educators in general. These should address the components of: (a) knowledge of multiple representations, (b) knowledge of students existing ideas, (c) knowledge of pedagogic strategies to build upon the concepts on students' existing ideas for a particular topic/concept. For example, if we have to deal with the pedagogical content knowledge for fractions in mathematics at the primary school level, we have to search literature on all the above three elements. This process can be carried out by a group of motivated teachers or teacher educators.

Once the module is prepared can be introduced to the teachers at decentralised platforms like in Cluster Resource Centre (CRC) and Block Resource Centre (BRC) levels. At this stage, the participants would discuss in detail on the modules shared with them with the participants engaging with the module in an interactive manner and taking part in the process to enrich the module, rather than be just passive receivers. In principle, unless the teachers bring contextual experience of the students and their rich wisdom of practice the module cannot be considered valid. This also demands the engagement with teachers free from rigid bureaucratic notion of discipline and creating an empowering and motivating environment to work in.

Once the teachers gain familiarity with the existing wisdom, it is crucial to test these new learnings tempered by existing wisdom and for that the teachers can carry out a set of action research on the topic and record all their learning on the three elements. Teacher educators along with two or more teachers can collaborate on one or more specific topic. The learning from the action research would be the resources for the next engagements at CRC and BRC level. Some of the learnings should be documented and presented in teacher forums.

It should be noted that this kind of quality work can only be ensured when there is a constant support mechanism accessible by teachers as well as opportunities for regular meetings on a voluntary basis. The learnings documented in this process, along with the module prepared at initial stage, would together form a basis of pedagogical

content knowledge of teachers in a particular context - a process which should be repeated in every academic year.

Conclusion

The effort of integrating PCK in in-service TPD is not new to the academic community. The recent policy discourses in Indian context and individual experiences indicate a need to situate existing TPD endeavors addressing strong elements of PCK. This article made an attempt to articulate the idea of PCK, understanding its elements, the implications of these elements in structuring in-service TPD, and finally proposed a model of TPD.

There have been efforts put in different state level initiatives to integrate some elements of PCK. E.g. the science modules prepared for in-service TPD in the State of Uttarakhand integrated some elements of PCK by integrating understanding of alternative conceptions associated to specific concepts in science (SCERT Uttarakhand, 2016). However, translating the proposed idea in totality require an overhaul in its structure and conceptualization. Integrating PCK in the TPD programmes assumes that the teachers and teacher educators possess already an expert understanding of content, pedagogy, education, and place of education in society.

The present state of school education and TPD programmes seems to constraint the proposal made in this article. One way to resolve this is looking the entire in-service TPD to enhance PCK and therefore drawing out knowledge from other domains as and when required. There is a need to make the in-service TPD decentralized, informal, regular, coherent, and relevant to the life of teachers. It is more important to leverage the opportunity of marriage across the existing knowledge base in literature, expertise of teacher educators, and the teachers' wisdom of practice. This marriage would pave the way for constructing new knowledge for the teaching community. Finally, it is important to recognize the potential of in-service TPD a step forward to form the destiny of the nation in true sense as it was envisioned in the Indian National Education Commission Report more than 45 years ago.

References:

- Cochran, K. F., DeRuiter, J. A., & King, R. A. (1993). Pedagogical content knowledge: An integrative model for teacher preparation. *Journal of Teacher Education*, 44(4), 263–272.
- Jammer, M. (1962). *Concepts of force*. USA: Harper Torchbook.
- NCERT (1968). *Report of the Education Commission, 1964-66: Education and National Development*. New Delhi: National Council of Educational research and Training.
- NCTE (2010). *National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teacher*. New Delhi: National Council for Teacher Education.
- SCERT, Uttarakhand (2016). *Arjan: In-service Teacher Training Module 2016-17 for Science Class 6-8*. Dehradun: State Council of Educational Research and Training.
- Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(1), 4–14.
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22.



The Role and Challenges of School Teachers in Contemporary India

Asif Akhtar

Introduction:

Today social transformation is fast as evident in many parts of the world. It has triggered changes in functional dynamics of many professions. Teaching is one such profession. Teachers are assuming greater responsibilities with changing time and carving their niche once again to face challenges of present time. In our country such changes have been primarily driven by economic growth and technological advances especially in post 1990s. With liberal economic policy Indian society has witnessed increased upward social mobility. It has impacted the young generation in different ways. Teachers not only perceive their role changing, but have developed mechanisms to cope with this situation. It is against this background that an effort has been made through this article to get a brief understanding of role and challenges of teachers in contemporary Indian society.

We know that teaching is a complex activity, a process by which a controlled environment is provided so that teachers can develop predetermined learning among students. Its objective is to bring about desirable changes in the

students. In conventional term the word teaching implies that it is a teacher -centred activity, a terminology which identifies the teacher as the source of knowledge and students as passive receivers of that knowledge. Consequently it resulted in stereotyping a teacher as authoritative and unassailable.

Over the years the traditional role of teachers has been redefined. As per National Curriculum Framework for Teacher Education (NCFTE), 2009 the role of teachers is considered to view learners as active participants in their learning and not as mere recipients of knowledge. Teachers are also envisioned to organise learner- centred, activity based, participatory learning experiences, such as play, projects, discussions, dialogues, observation, visits, integrating academic learning with productive work. Therefore it supports the idea of knowledge construction, rather than knowledge instruction, as suggested by Dwyer, et al (1991) in his classroom approaches of knowledge. In this model the key word is collaboration for both teacher and student. The diagram below shows the difference in the two approaches:

	Knowledge Instruction	Knowledge Construction
Classroom Activity	Teacher centered (didactic)	Learner centered (Interactive)
Teacher Role	Fact teller (always expert)	Collaborator (sometimes learner)
Student Role	Listener (always learner)	Collaborator (sometimes expert)
Instructional Emphasis	Facts (memorization)	Relationships (inquiry and invention)
Concept of Knowledge	Accumulation of facts	Transformation of facts

	Knowledge Instruction	Knowledge Construction
Demonstration of Success	Quantity	Quality of understanding
Assessment	Norm referenced (multiple choice items)	Criterion referenced (portfolios and performances)
Technology Use	Drill and practice	Communication (collaboration, information access, expression)

Dwyer et al, 1991

The National Curriculum Framework 2005 expects a teacher to be a facilitator of children's learning in a manner that helps children to construct knowledge and meaning. On the one hand a teacher is seen as co-creator of knowledge and on the other as a participant in the construction of syllabi, textbooks and teaching- learning materials.

But such multifaceted roles requires comprehensive understanding of curriculum, subject- content and pedagogy as well as community, school structure and management. Apart from instructional roles as collaborator and facilitator, a teacher functions today as a learner, counsellor, manager, assessor and innovator.

Teacher as a learner

A teacher is considered to be a lifelong learner. In India and elsewhere teachers in schools are appointed after earning a professional degree in teaching. After appointment teachers get different training most of which is mandatory in government schools and optional in private schools. But the question is whether such pre and in -service training inculcates in the teachers a spirit of lifelong learning. P. C. Chandola, a senior faculty member at District Institute of Educational Training (DIET), Udham Singh Nagar in Uttarakhand said that this year PINDICS, (the acronym of Performance Indicators of Elementary School Teachers) has been made a compulsory component of in- service teachers' training. He says out of four indicators provisioned in the training module one is self-development which focuses on self- learning by teachers and quoted Steve Jobs' famous words 'Stay hungry, stay foolish'. With time, syllabi, content and beliefs change so there is always a need for readiness to learn, he added.

In contrast, many students equipped with tools of information technology are posing great challenges to teachers in the classrooms. Salahuddin Ahmad, a geography teacher in one of the largest private school chains in India based at Patna, Bihar says that the present easy access to internet , is a challenge students are posing to their teachers. As a consequence teachers lacking in content knowledge and multiple pedagogical tools are losing control over their classes. If a student's query is handled properly students take interest in class and there will be no chaos, he added. Michael Fullan, emeritus professor at Ontario Institute for Studies in Education, University of Toronto had predicted this situation many years before and had

advocated the formation of Professional Learning Community (PLC) of teachers as a powerful tool for their professional learning.

Teacher as counsellor

The position paper of National Focus Group on curriculum, syllabus and textbooks says that a close study of adolescence in contemporary India poses several new challenges emerging from personal as well as social turmoil as characteristics of societies in transition. It further adds that it is important for teachers to engage with social constructs of childhood and adolescence. Looking at these concerns, what role of a teacher can be envisaged? With easy access to technology , the vulnerability of students is at its peak. Mulla Adam, a teacher at a municipal school near Mankhurd railway station in Mumbai, says that today students have easy access to sexually explicit videos easily and cheaply available in cybercafes. Earlier there was a restriction on children below age 18 on watching adult movies in cinema halls. But these limitations have now been broken due to misuse of technology. He said as a teacher it has become compulsory in schools today to have open dialogue and counsel students on such issues . According to him, there is a great need to sensitise school students on how to use technology which may help in reducing juvenile crime rates.

Let us consider the availability of opportunity for counselling by teachers in other schools. Unlike in government schools, private schools face some limitations in this area. Salahuddin says private schools are now focussed on mechanisation of processes. With the advent of smart classes, the student - teacher relation has been negatively impacted. Interactions with students have become reduced. Earlier, teachers had opportunities to talk and counsel students facing personal and social turmoil. Today, these are rare as some schools operate like multinational corporations.

Teacher as manager

A manager can be defined as one who takes decisions, and is resourceful enough to assess how to change according to the demands of a situation. Where this was limited to three phases of teaching namely pre-teaching, teaching and post- teaching but today the scope has widened to include many non- teaching activities. NCF-2005 laments about this reality which says school teachers are asked to do a range of non-teaching work such as collection of data for rural development schemes, national

census, election work and other campaigns assigned to them by the district officials taking them away from the classrooms. This indirectly legitimises the non- performance of the school teacher undermining him/her as a professional.

Echoing similar concerns, Shiv Dutt Tiwari a Head Teacher in village Chaurikali Khan at Almora district of Uttarakhand sympathises with students who walk to school through steep hills to learn but find their teachers busy filling in more than two dozen registers. He says non- teaching activities of teachers are stealing the time of students and jeopardising their futures. Other activities include buying provisions for the midday meals, providing health tablets, withdrawal and deposit of students' scholarship amount, textbooks collection from cluster resource centres, aadhar card enrolment of students, construction and election work, attending training courses, etc. The main reason of deterioration of quality in school education is persistent distractions due to non-teaching activities by teachers which has increased enormously after advent of Sarva Shiksha Abhiyan, he said.

Teacher as assessor

After the implementation of Right of Children to Free and Compulsory Education Act (RtE) 2009, teachers in many states have stated that the 'no detention' and 'no corporal punishment' policies are intrusion on their professional rights and have made their task more difficult. Unfortunately the interpretation of the 'no detention' policy and CCE have been left to teachers' imagination. Many teachers equate no detention with non-assessment of learning outcomes. There is a widespread belief that these provisions have weakened the learning outcomes of students.

Salahuddin says that the 'no detention policy' has reduced accountability of teachers and learners both. Earlier there was pressure on students to pass examinations, but today grading in scholastic and non- scholastic areas are subject to scrutiny. School - based grading is 70 per cent, which finds favours of teachers because both school management and parents want 10 CGPA for candidates. Many students with such high grades lack basic understanding of subject matter when they reach senior secondary classes, making this form of assessment fictitious. Parents try to offset this gap by admitting their wards to coaching institutes, paying hefty fees and even after this huge expense,

the success rate in IIT examination is just about 5 per cent.

Teacher as a innovator

Traditionally, teachers gained content knowledge obtained through their college education and textbooks used in schools. Textbooks, the blackboard, chalk and a few charts and models used to be teaching -learning material (TLMs). Today, technology -savvy teachers are innovating TLMs. NCF-2005 says that technology must be integrated with larger goals and processes of educational program. Suresh Chandra, a middle school teacher at village Mahatgaon near Almora, recently created an animation of solar and lunar eclipse on power point to explain the concept to his students on a school computer. This animation not only helped students to see causal relationship of eclipse with sun, earth and moon but also to understand the abstract concept. Motivated by the positive learning outcomes, made a model with rags and sticks to show the Himalayan range to explain mountains, valleys, glaciers, rivers, tributaries, delta, estuary.

Mitigation of challenges

- The teacher as envisioned in the NCFTE-2009 calls for overhauling of pre -service training. Limited understanding of school and certificate based examination are detrimental to the teacher education which is rightly criticised for lack of depth and duration As a nation, we must commit ourselves to bring in the best people to join this profession.
- The time and life of a child must be understood with empathy and great deal of care. It requires both perseverance and passion. A solid understanding of childhood and adolescence may help a teacher to address challenges which a student face in personal and social lives.
- The race for competitive examination is attributed to lack of awareness and opportunities for livelihood. Schools certify a child's education but it fails in ensuring a respectable and decent life for her which constitution of our country guarantees. There is need to open up possibilities to develop skills among school students.
- In spite of economic and technological advances a large number of students are dropping out of school. NCF- 2005 has shown

concern at the insidious pattern of social exclusion of children coming from socially and economically deprived backgrounds, such as scheduled castes, scheduled tribes, minority and other communities, girls and children with diverse learning needs. Teachers must ensure education of every child in school irrespective of social, cultural or religious identities.

- The performance appraisal of teachers can be based on time given in teaching in the school. Non-teaching activities should be systematically brought down to zero. So that passion to teach and transform lives of children remain a single point objective of teachers.
- The development of the teacher as reflective practitioner can be considered the pinnacle of their professional success. However, this can be achieved when their autonomy is not challenged. NCF-2005 states that teacher autonomy is essential for ensuring a learning environment that addresses children's diverse needs. As much as the learner requires space, freedom, flexibility, and respect, the teacher also requires the same.

References:

- *National Curriculum Framework for Teacher Education*. New Delhi: National Council for Teacher Education, 2009-10.
- Fullan, Michael and Gerry Smith. "<http://michaelfullan.ca/wp-content/uploads/2016/06/13396041050.pdf>." December 1999. *michaelfullan.ca*. 12 September 2016.
- *National Curriculum Framework 2005*. New Delhi: National Council of Educational Research and Training, 2009.
- "<http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/PLC.pdf>." October 2007. *www.edu.gov.on.ca*. 12 September 2016.
- *Position Paper National Focus Group Curriculum, Syllabus and Textbooks*. New Delhi: National Council of Educational Research and Training, 2006.
- Ramachandran, Vimala. "The Position of teachers in our education system." *Learning Curve* (2016): 50-52.
- *Teacher- Role and Development*. New Delhi: Indira Gandhi National Open University, 2004.

Asif is a member of Azim Premji Foundation, Almora, Uttarakhand. A former school teacher of biology for over a decade at a senior secondary school, he has been in leadership roles in the two schools he has worked with. His voluntary work spans from establishing a library for children to founding youth organizations by the names 'knowledge-seekers' and 'bio-thinkers'. His areas of interest are science teacher education and leadership. He may be contacted at asif.akhtar@azimpremjifoundation.org



Empowering Teachers through Development

Bhavani Raghunandan

I became a teacher quite by accident when I went into a school in Hyderabad to admit my son and found I had to wait for him to finish and then take him home. So I thought I may as well contribute while I was there. And so began my 32 year tryst with education.

And I choose the word 'education', as opposed to mere 'schooling', very consciously. Having got in, I found I was actually drawn to the process of educating children with all its nuances. I realised the enormity and importance of what the vocation was all about. It was not a job, it was not just a career- it was more than a commitment- it was indeed a calling.

Although I was very confident I would be able to teach children—what with my excellent post graduate qualification and a B.Ed. degree to boot - I soon started wondering whether it actually qualified me to teach. I had no idea what all it took to become a professional teacher, for instance, patience – something I had never had, tolerance - low, communication skills - which, although my basic English speaking skills were good, needed to be honed; the list was endless. I could see that a lot needed to be done for the lesson to be conveyed. So what began with mild over confidence was now becoming almost a fear of facing my students, ending up as a depression of sorts.

Discovery - I really needed to work on my teaching skills!

And so started reading. It must be remembered here that this was the pre-internet, pre-Google, pre-teacher-training era. Reading meant whatever articles I could find which were in any case few and far between. People were still not critical - teachers were considered to be the sages on the stage—they 'knew' everything. They spoke and the children followed but were they saying the right things? They also believed that one size had to fit all.

In the meanwhile, society was changing. Fathers and mothers were more educated and specialised, consequently their expectations from teachers were increasing. They knew what they wanted.

They were ambitious and were learning what they needed to get their children, getting a lot more exposure from their families which were earning, reading and travelling. Gen X had arrived: children of people born in the 60s. Both parents were working and many of the children had become latchkey kids. They were home alone, independent and creature comfort. They were impatient, had no time to read long paragraphs, wanted everything in bullet points, wanted, and got, information at the click of a button on their computers, had developed a cut-paste culture and the arrogance that went with this.

In this scenario where was the sage on the stage? He/She had not moved with the times. They had been trained by teachers in ways which had been tried and tested, within a society where kids were taught to obey whatever the teacher said. Asking questions meant arrogance or was taken as doubting the knowledge of the teacher.

It was time to change that attitude. Teachers could no longer 'blame' students and say, 'oh in our time...'. There were three fingers pointing right back at them. They were now dealing with a different set of parents and students that they had not been trained to handle, notwithstanding the fact that they had themselves changed!

It was only when I took charge as Principal of a well-known school could I implement what I thought was right. In other words, teachers needed to learn all over again.

So the first thing I did was to get trained myself. I always felt that at least 10 percent of one's salary must be set aside for one's own improvement- in terms of buying books, enrolling for courses and such like. So every year I would attend at least one course with my own money. On my return I would occasionally make my learnings and readings into slides and make short presentations at staff meetings. I expected a 10 percent hit rate, which I knew would influence another 20 percent.

The first training that I aimed at for the teachers in this school was the realisation that they

needed to get over the fear of technology, a fear that manifested itself in various ways, such as resistance ('oh why do we need it—we managed without it all these years'), to reluctance ('it is laborious, cumbersome' and 'how can we learn at this age'). Further, there was a strong perception that computers belonged to the Computer Science department. I had to change that by saying the computers belonged to the school and that while the computer science students got priority of use, any teacher could use it when free. This was followed by a notice saying that the following teachers would submit their question papers on a floppy, ready-to-print. I first chose subjects like English which did not need special characters and pictures. The notice also said that the computer science teachers would teach the others after school. There was pandemonium. 'We can't learn, we can't type, we can't..can't..can't..!' I just shut my ears—I said, 'If I can do it so can you'. Despite all the initial misgivings, it did get done, though, perhaps at the cost of my popularity! However, when the papers were printed they were so excited— they were clearer, neater and used much less paper than hand written ones. I saw that there was also a sense of pride, both because they felt empowered and also because there was ownership. They had learnt, and were doing something that many others could not, exactly what I had been hoping would happen. Next term a few others offered—they got loud appreciation from me. More joined—I just sat back and watched. The language teachers were not to be left behind. They wanted the software for the various scripts. Then came the demand for more computers.

Then we moved slowly towards teaching with audio visual aids. An audio-visual room with a projector and a screen was developed. There was a resistance to use it as it was located far away. I started conducting staff meetings there so that the perception of distance decreased. Then the room started getting used for senior classes. Today the room is booked in advance and there is a fight and mad scramble for its use!

This was the time I felt that the classrooms needed separate smart boards and projectors. There was a need for a lot of money which was generated by building it into the fees. Today, the school has boards in all the classes upto 8th standard, from LKG onwards. I was also invited to make a presentation to the senior officials of SMART as to

how the notebook software – as it is called - had been incorporated into our pedagogy.

The important thing was that the teachers had realised what they were capable of and felt proud that they had become the trendsetters in the city. My first vision and the strategy had worked. I was thrilled to watch the teachers and students in action. It was a giant leap into the future of the school.

Now began my foray into the personal development of teachers. In 1998 I had attended a training programme in New Delhi conducted by the Center for Educational Management and Development (CEMD). The resource persons were extremely competent and committed and the course design and content were excellent. This programme had three modules - dealing with personal development, instructional design and institutional management. Such a course had never been heard of before. Once the resource persons were convinced that this course had to be brought to Chennai, our school hosted the event and we had 35 participants. I was a resource person for the programme and conducted some sessions for them. The assumption and thought that one is selected to become a Principal because one had 'arrived' and knew more than the teachers was now being questioned. One's learning just begins I thought. The skills required to become a Principal are very different from that required by a teacher. Many schools make the mistake of taking a good teacher and making a bad Principal out of her/him. Secondly no organisation existed for training Principals. The Principals also felt they were above all training and learning and would keep sending teachers for training. Today Principals have to run to stand where they are. That would not do. After the year-long programme, for which I sent two of my senior teachers, I had two more who understood what I was trying to do. Then I found an organisation to sponsor the programme and now I am proud to say that the 9th batch of senior teachers is going through the programme.

Another of my visions had been successful. The job of a Principal is to give direction and to make the teachers feel they have done it themselves! In the meanwhile the then Director of Academics of the CBSE had made me a resource person with the CBSE for training Principals. With him, I trained Principals in Trichur, Calicut, Hyderabad etc., learning a lot about the challenges faced by Principals in these areas.

Around this time, I had been invited by Microsoft to be on a couple of panels at their Education Summit in New Delhi, dealing with incorporation of technology in teaching. The conference widened my knowledge about the use of technology in the developed countries of the world. My hopes and ideas went into a different dimension and I came back with my head full of hope.

Among the slides that I have showed the staff is one on the Gen X who they are now teaching, need for learning continuously, passion for teaching and need for motivating the new teachers. The message is – ‘You don’t have to teach the subject; what you need to convey is your passion for the subject and the students will learn themselves’. There have been training sessions on Communication, Emotional Intelligence, Differentiated teaching, Team work, lesson design, types of questions, setting a question paper, formative and summative assessments and lot of other skills required to remain in teaching.

After about a decade I felt that we were ready to set up a training centre for teachers. Over a year I

designed and developed a two week programme on the lines of a finishing school for teachers. Twenty new teachers attended the programme and worked in the school with us. Unfortunately, this venture had to be discontinued as the school decided to start a branch in the suburbs, which needed more time and attention. This branch started off where we had stopped and went way ahead. The teachers were more experienced and the Principal herself had been trained to use technology and was very technology savvy. This school started as an almost paperless school with all teachers on an intranet and all parents being on the mobile application or in Whatsapp groups and so on.

I retired after 17 years of being a Principal - a very satisfied one - having contributed my two bits to teacher development. I continue to be called for conducting workshops for various schools. This is my calling in life I think, because it lets me continue to learn and read and am very happy.

The process of teacher development has indeed come a long way.

Bhavani is the former Principal of Vidya Mandir Senior Secondary School, Chennai. She retired after 17 years as the Principal. She is on the boards of several educational institutions and is a resource person and advisor. She may be contacted at bhavarag@gmail.com or bhavani1954@hotmail.com



Case study of in-service Teacher Professional Development - An occasion or a progression

Anju Das Manikpuri

Teacher professional development contains an extensive diversity of programmes intended to encourage and support the knowledge of teachers. When it is about in-service professional development, then the aim is to expand the knowledge, pedagogy, skills, and obligations of teachers so that they become effective in planning lessons, teaching, assessing student's learning, and responsibility other accountabilities in the school community. In-service programmes could be understood within the following two categories:

1. Sometimes, 'in-service' raises to a prescribed, extended course of study, reflecting the pre-service teacher education curriculum and important to some level of recognised qualification for professionally "unqualified" teachers.
2. Classically, the term is used for professional development activities for teachers, extending from continuous, comprehensive programmes of teacher learning to workshops.

Both practices of in-service courses are equally significant, especially in the present context. For example, the transition from rote learning to facilitation of learning that emphasize critical, analytical, and problem-solving skills is only possible if teachers implement new practices in the classroom regardless of their pre service degree, understanding, knowledge and skills. A teacher education curriculum needs to be in consonance with the curriculum framework for school education. NCF advocates that a teacher needs to be prepared in relation to the needs and demands arising in the school context, to engage with questions of school knowledge, the learner and the learning process¹.

The strength of case studies are that it can be vigorous and more engaging than a lecture because learners are involved trying to put ideas into their own words².

With the above view and in continuation of our work on teacher education, I am herewith mentioning two case studies of two schools for which one (school 1- S1) has pursued the teacher education

as occasion and for other it is progression, (school 2-S2). Both case studies are from middle schools and are part of science teacher education.

S1*- Here the teacher is professionally qualified with a B.Ed. He easily grasps how children learn and understands the psychological, sociological and scientific aspect of gaining knowledge. He participates in workshops and symposiums, but the learning gathered in various platforms are not reflected in his pedagogy, which will be reflected through dialogue, debate & discussion with the teacher later in the article.

S2*- This science teacher is an active, professionally qualified (D.Ed.) with vibrant energy and totally devoted for putting efforts for better teaching learning process through preparation of numerous tools for learning. He understands the holistic nature of science as well as he also know each stream of science reveals the nature of science in process.

It will be worth to mention each school's class as below-

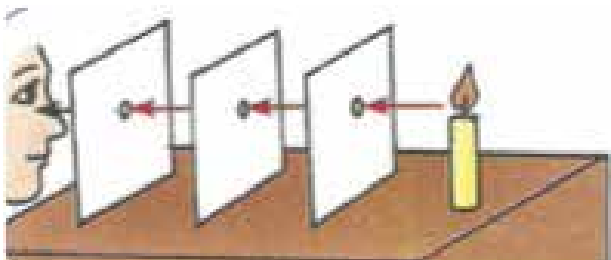
A glimpse of science in "chemistry" class – Chemistry is the study of interaction of matter and energy.

T1* always counts admin challenges which interrupts him for doing activity based classroom. He believes revision (rote) of concepts is better than learning by doing. He prefers the lecture method instead of facilitating the concepts. But I would like to give emphasize this teacher has expertise in designing experiments and models to understand the concepts of science, but he does it for earning purpose only.

T2* transacts the separation of matter by letting the experiment to choose the proper and connected method for suitable separation. He also asked to provide some challenges to separate the mixtures on the basis of different properties of matter. He presents the task why one cannot choose the method of chromatography to separate husk from rice? One of his student added to it, how she was able to find out the lost small needle under bed with

the help of magnet for her Dadi (grandmother), during conversation the happiness was in rhythm with the expression.

Physics as a core of science – So with the continuation of previous dialogue, we asked the teachers what type of challenges they are facing on teaching light. Both responded as, in starting they don't feel challenges but as they move to hierarchy of concepts they feel challenges to go ahead.



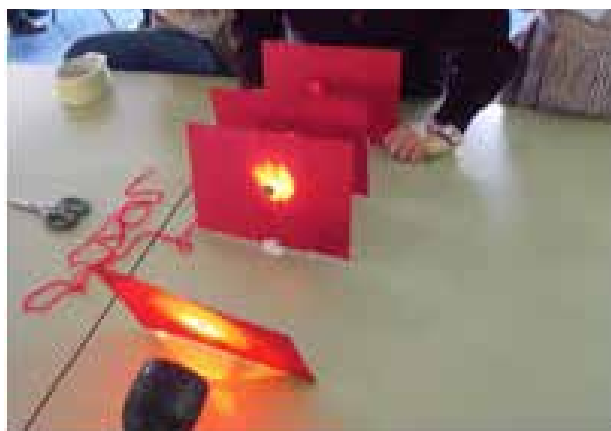
We again started discussion on how a teacher starts the class to teach “Light”?

The response is given in the form of dialogue. Let's have a look on key point of discussion-

T1/S1: I used to start my class by giving facts and information on what is light. For the same, I ask the object we see, are visible in light only and we can't see in dark. In this way, I introduce, that light is a required medium to see an object.

T2/S2: I start my class by asking that what is required to see an object. Generally, children used to say that we can't see the object without eye. I further used to ask them, you have eyes, but could you tell me about the things which are kept behind the wall.

In the meantime, T1 interrupted that “Sir, you went very fast, it is more than light, you are mixing the concepts of shadow, transparent and opaque matter to the concept of light.



T2 addressed him how sequencing and interlinkage of concepts are required for an active science class and further he started to share.

From these dialogues he used to move by asking children to see a chalk, shaking the hand, what is there in between finger and eye that we are able to see the fingers, why we are not able to see the same finger in dark? In this way the importance of light is being understood with an open discussion and it is good reflection how we see the linkage among concepts by being a science teacher. Again the teacher shared about two activities to explain that light travels in straight line, which has been represented as pictorial representation. On asking further, when there is more than one room then how light enters to each room and how it would be explained to children.

Teachers responded that now it is the time to explain the reflection and how light moves could be well explained by taking examples. For an experiment T2 shared that every child does experiments in his class, one who could not do is supported by peer students.



But now he shared challenge that there is only one activity on reflection; given in the text book and we have to be stick on it. If it's not understood then we feel more challenges.

Teachers are given multiple opportunities to practice what they are learning about facilitating inquiry through analysis. For example, after a discussion about ways to interpret children's thinking about light from their exploratory behavior, teachers observe child experiencing traveling light through tube. This prompts a discussion about the child's current ideas about travelling of light and the science that the child is experiencing. Activities are used to build understanding of the teachers' role as a facilitator of the Involve-Reconnoiter-Replicate

cycle, including examples of teachers leading engage-and-reflect chats, supporting children as they represent their observations through depiction, and intermingling with children.

Biology and process of life

We all know that a major percentage of government middle school has no subject specific teachers. T1 has math academia in his graduation whereas T2 has Bio academia. T1 and T2 both used to teach science and math to the middle school students. During discussion on Bio and process of life, T1 says that he has no expertise in Bio, so he teaches it by dictation from textbooks.

T2 added and shared that there is a pond near to his school where almost all kinds of microorganisms are found, mentioned in the syllabus of middle school science. He used to ask the students to collect the samples in every season and observe the sample microscopically. When students see the various microorganism in different seasons then gets more enthusiastic to watch more samples of ponds and canal of their villages. In this way, they enjoy the process of collection of samples, prediction about presence of microorganism and reporting the observations. He happily adds that he learns a lot from the students especially when they ask how the cell is structural and functional unit of life.

From the above mentioned dialogue with teachers, I will add that pre-service teacher education and in-service teacher professional development programs should be designed as a whole, a range of learning that flinches with pre-service education; includes periods of school-based investigation and practice teaching; continues into an orientation or mentoring period of full-time teaching. Each stage builds on previously acquired knowledge and skill.

Teachers need a significant amount of knowledge about the nature of science and practice in using scaffolding tools throughout progression of the replication. Without professional development in this field, teachers are in danger to fall back to straight teacher centered methods. Teachers should apply reasonable pedagogical strategies for addressing nature of science explicitly, which means to incorporate NOS as an intentional and planned instructional outcome of the science lessons.³

With the same context, after interaction and interview process, I am herewith representing case study of classroom of both the school with taking example of concept "Separation of matter".

Case study of a classroom of T1- Here teacher took 2 days to finish this chapter. On day 1, he asked students to read the paragraphs one by one and after completion of the chapter he asked students to do homework (answer of questions) on it. On day 2, he checked the homework and asked students to memorize the answers in 45 minutes. He was satisfied that his students have learned the concepts/content of the chapter "separation of matter" well.

Case study of a classroom of T2 – For the same concept, this teacher took 4 days with interlinking the other two concept "changes around us" and "properties of matter". The momentary of class room process is given here-

Day 1: A table kept centrally and some black boxes remain to be one of the preferred corner in the room. I liked to see how had engaged the students to know what was there inside the black box.

The teacher came and asked the students that what they will do if they come across husk and stone in the rice while preparing to cook it.

How will they decide that among the materials- rice, stones and husk which are the ones suitable for them to cook? How will they choose a particular method of separation of wanted & unwanted constituents of mixture?

Day 2: It was too hot for the students to go outside today, so the children were distributed in small groups and were provided with one black box each group. The task for the group was enlisting materials inside the black box and to write the characteristic of provided materials whatever they can make from their earlier experience or predict from the instant appearance. Group 1 had mixture of sand and iron powder. Group 2 made a list of materials having rice, husk, small stones and some white powdery material. Group 3 had some water in a bowl on which white pieces of material was floating, one kid was interested to taste it, but the teacher had already instructed them not to taste any materials. All were engaged to write in their note book, some were also drawing the pictures of the materials.

Day 3: The children in a small group asked if they can carry out the separation of materials today, so the group did. It was the group's idea to separate the materials given in the black box. They were arranging the resources required viz filter paper, bowls, magnet, burner etc which were required for

separation processes of crystallization, filtration, decantation, evaporation, magnetic separation, threshing, winnowing etc. I asked them where that idea came from. Some of them, paused for a minute, and then said, “We see it in around us every day”. But group 3 was puzzling to identify the materials, anyhow they filtered the white flakes but wondering to see the content of water. Now teacher came as facilitator to this group and told “if I will say the names then can you separate the materials”, students were in agreement. He told this water has common salt and the flakes are camphor. In this way he guided the students.

Day 4: This was the day of free choice to choose any mixture and to separate the materials by using suitable process of separation, the children continue to spend lots of time at the table, outside of the hall and near the water source. It’s almost as if the children’s probes at the group are “nourishing” their work with science learning background. After all, it’s at the black box where they can test out new ideas and possibilities that they can then bring back to the materials mixture. This was the day when teacher asked students to summarize the work of four days and mean while he was adding few more points for building the understanding of the concept.

In the words of T2, I had chosen this particular challenge and set of mixtures because I felt that most of the children in my group were ready for a more in-depth study of the matter. Through my observations, conversations, and group discussion, I believe almost each child in my group would agree that matter can be purified, but were not able to choose the particular method of purification and separation. They are getting quite skilled with few resources. I felt introducing the glass funnel might be just the task to set their thoughts competing with ideas on how to master this more interesting task. He was also documenting the group’s discussion with taking snaps of working children.

One can observe, in case of second school, at first the students were asked for reflecting on their own activities, results, solutions, ideas and thoughts. During a second step their experiences are related to the information about the actions and cognitions of a past experiences. This part of the conversation primes over to the discussion of more general facets of science. General and guiding inquiries focus the nature of science like “How new knowledge is generated?” or “How do science person work?”

Discussion and representation are both acute to science learning and an important part of the inquiry process; the expansion of science cognitive. Both in small groups and in large ones, discussion boosts children to think about what they have skilled, attend to the experiences of others, and reflect on their notions. Similarly, depiction using a variety of media—including portrayal, writing, and collection—cheers children to observe thoroughly and reproduce on their experiences over time as well as build vocabulary and language constructions.

The Teacher’s Role in both case

The teacher’s role is critical to children’s science learning, and it is a multifaceted that is informed by her knowledge of children, of teaching and learning, and of pedagogical science knowledge. I want to highlight just one of these pedagogic science familiarity. Learner’s logical inquiry is shown by the teacher’s open understanding of the important fundamental science perceptions of the emphasis, T2 has chosen. For example, the children’s work with mixture above is indeed about matter,” but it is also about mixture has to be separated to its components—a basic property of mixture. While explicit teaching of the concept is not applicable, the construction of the understandings and the teacher’s facilitation is guided by knowledge of the concepts and how children learn them. His questions, comments, and reviews draw the children’s attention to the concept. This kind of teacher guidance and facilitation is based in each teacher’s understanding of the concepts behind the children’s work and enables him to encourage children to notice and reflect on key aspects of the phenomenon they are exploring. But in case of S1, no such elements of science education was found although T1 and T2 both were part of continuous teacher’s professional development.

Calendar and pedagogy – Like every school, here is also a calendar; provided by SCERT for scheduling the work of teachers. Here also a clear difference could be observed. T2 teaches the concept of science as per climate, season but T1 is strictly following the calendar viz there is no rain but teaching about soil and rain.

Assignment for self-learning- After every in-service teacher’s workshop, teachers are provided an assignment which are related to their classroom process. T1 does it in his table, T2 reflected it with compiling the classroom experiences to work

on own pedagogy practice and to enhance own knowledge on the subject.

Conclusion

The vital significance of in-service teacher professional development in developing teachers as professionals is indisputable as it can make teachers reflect on her own practices. For in-service teacher professional development to be meaningful, incorporation of such things in in-service teacher professional development is imperative. It should also inculcate in teachers the sense of accountability and the kind of attitude required for teaching and learning.

To do justice with the teaching profession, a teacher needs to keep on questioning her own belief system, updating her knowledge and skills, knowing the objectives of teaching that subject and understanding the nature of the subject; for they all play crucial role in determining the classroom process.

From the above two cases, it is very clear that professional development programs will benefit teachers most if they are based on strengthening their pedagogy and content knowledge. Continue follow up will support those teacher also who see the in-service teachers professional development as an occasion and will motivate the teachers who takes it as a continue process.

Both the mentioned experience brought into unambiguous relief the contrasts between what is possible and what is often probable in classrooms. It fueled my own reflection on the challenges that teachers face as they try to implement an inquiry-based approach to science teaching and learning.

Classroom observation and interviews with the teacher reveal the importance not only of training teachers in the appropriate classroom techniques but also of providing ongoing support as they develop expertise and acquire deeper understanding and acceptance of the science education underlying the new approach. I recommend that such reflections must be supported as teachers are learning new classroom practices.

Acknowledgement:

Writing this paper was not possible without support of Prasun and Ravishekhar, especially in editing the language.

* T1- Teacher of school 1, T2- Teacher of school 2, S1- school 1, S2- School 2

References

1. National Curriculum Framework for Teacher Education, New Delhi, 2005, 1-89
2. Clyde Freeman Herreid: The Use of Case Studies and Group Discussion in Science Education National Center for Case Study Teaching in Science, University at Buffalo, State University of New York, 2002, 1-8
3. Rudge D. W., Howe E. M. An explicit and reflective approach to the use of history to promote understanding of the nature of science. *Sci & Educ*, 2007, 18: 561-580



SECTION C

Reviews



Action Research and Reflective Practice

Sneha Titus and Indumathi S



Pedagogy, like any other field has its ‘pop’ vocabulary and the flavour of 2013 was ‘Action Research’. The set of videos which we reviewed were part of a project based on the work of teachers in a school in Dineshpur, Uttarakhand, India carried out between August and December 2013. Eight teachers and the Principal chose to conduct action research on problems that they faced in their classrooms – this process was facilitated by some members of Azim Premji Foundation. The study was led by Dr. Neeraja Raghavan and her work has been collated in her book ‘The Reflective Teacher’ in which the case studies used are those encapsulated in the video films titled ‘Emergence of the Reflective Practitioner from within the In-service teacher’.

What a thought provoking title! The title- ‘Emergence of the Reflective Practitioner from within the In-service teacher’, brings to mind a chrysalis- the potential that each in-service teacher carries within himself or herself. And indeed, the short films that showcase the work of the teachers in the study are striking for this very reason. Here we see a group of teachers, struggling with problems that teachers all over the country face- students who have difficulties with basic concepts and lack skills of literacy and numeracy, first generation learners, irregular attendance and lack of support from the home environment.....the list is endless! Add to this, the teachers cope with pressures of

‘covering’ the syllabus, handling students who are at different levels in the class, students who don’t speak the same language as the rest of the class.....what can emerge from such scenarios?

Yet, incredibly, one sees teachers identifying problems and applying innovative, yet simple strategies to address them. That, in itself, is nothing unusual. World over, teachers do this day in and day out- as the teacher in the video says, there is no need to give the name ‘Action Research’ to what we do as a part of our work. What makes the difference is the cycle which the teachers in the project went through.



if not, the research team encouraged the teachers to initiate the AR cycle all over again.

Almost unanimously, the teachers decried the documentation that was an inevitable part of the process. But almost in the same breath, they agreed that it was the crucial factor that helped them to reflect on the strategies that they had adopted. Some of them seemed to seek a benchmark, the 'right' way to document. Yet in the end, they all seemed to realise that it was the reflection that was the key, not the documentation.

The following section describes the action research initiatives taken by the teachers.

a) Enhancing English vocabulary and reading abilities: Shipra Agarwal

Like many teachers, Shipra Agarwal had a firm hold on the textbook as her guide to her classroom interaction for most of the seventeen years that she taught school children. At some point, she began to move to a position where she wanted to make her students better at the subject she taught- she wanted them to learn the subject and she wanted them to learn how to learn the subject! As part of the action research project, she decided to increase the English vocabulary of children of class 4 so that they recognized words and understood their meaning. Preliminary assessments that she undertook after teaching a couple of chapters indicated that children had problems in speaking, reading and writing English. Of these, she focused on reading and, interestingly, on building the child's confidence. She used innovative strategies such as visual clues, peer support and language based games. By slowly withdrawing supportive scaffolding, she was able to make the children more confident and independent in their reading skills with the total number of words read increasing almost 6 times after the month long intervention.

As I watched the video, I was impressed by the fact that Shipra's observation skills were sharpened by the imperatives of the action research program. It is clearly apparent that she detected gaps in the students' content knowledge as well as in skills. The strategies she adopted were simple and doable and most importantly, they targeted the heart of the problem- any teacher should be inspired to come up with such innovations. Teachers can also be heartened to hear that while her work did increase, she was able to cope with differentiated instruction in the classroom for students at different levels. In addition, she documented her learning in a practical manner that enabled her to reflect and learn without increasing her workload unduly.

b) Every child does observe: Mohit Sharma

Mohit Sharma teaches EVS and identified that a few students in his class could not read and write in Hindi. He wanted to build their confidence so that they take interest in learning EVS.

He evolved strategies that involved observation and presenting their learning and understanding through diagrams/ pictures. He made students draw animals and match them with the habitat through images. He adopted few such activities that helped students draw and present their ideas. He did these activities with all the students but documented and observed these 5 students and their learning.

Mohit found that these children also learnt as like other students but had problems in only writing the answer. Diagrams and images worked well for them. He could observe that these students also started speaking and participating in the class activities. They were observant and in another activity on breathing by fishes, one of these five students made an important observation and shared the same in the class.

Mohit understood that making students read and write alone and testing their written skills might not give a good picture of students' learning and that they should be given chances to express themselves in different ways. He also seemed to have built trust and relationship with these kids and in-turn their confidence level has increased. Also Mohit's idea of not separating them from the class and involving the whole class indicates his understanding about children. Mohit also reflects on his practice of assessment of students.

c) Ensuring understanding of Place Value up to 3-digit numbers- Shakuntala Chaurasia and Saud Ahmed Khan

Here is an absolutely honest account of both the struggles of a mathematics teacher as well as of the amount of work teachers have on their plate. Shakuntala Chaurasia and Saud Ahmed Khan decided to do the project together and they address a common problem faced by primary and elementary school teachers. How do they proceed with the volume of content to be taught in class 6 when students do not even know the fundamentals of the subject? In this case, students were struggling with place value in class 6. Using a simple set of problems on the blackboard and thus ensuring that students were not stressed with a 'test', they

identified nine students who had difficulties with ordering, comparing and writing two and three digit numbers. They decided to use material which was easily made by the students in the class- coloured blocks of units, tens and hundreds to teach the concepts. By starting from the basics, they were able to help the children with their numeracy skills.

I enjoyed this video for several reasons – the honesty in facing the true state of the students' understanding, the feeling that remedial strategies had been applied previously and would continue to be applied even after the project was over, the open admission that the documentation was tedious and cut into the teachers' time at home. In spite of all this, the discoveries that the teachers made: the students' attachment to the TLMs that they had made, the student who was lagging behind clamouring for home work, the strategy of getting students to create their own problems, the convenience of having two teachers to handle the stress of differentiated instruction and share the demands of the project all this is more convincing and related to a teacher's stresses, giving her reason to try and take the scenic route through understanding rather than the shortcut of delivering content.

d) Children learn by doing themselves: Neeraj

Neeraj teaches Science in class V and VI. He found that students don't ask questions and tend to believe what the teacher says. He felt the need to introduce students to the process of science and help them inquire.

He initiated discussion with students and helped them raise questions as a first step. He involved them to find out the factors that affect germination and whether plants absorb water through roots. They set the experiment, made observations and recorded the same. Students asked lot of questions and also altered the conditions- sunlight, availability of water and soil to find out about germination.

Through this process, the children have started asking questions and as well tried to find answers on their own. Neeraj earlier used to teach the principle and then do the activity, but now he is helping students engage in an inquiry and find the principle by themselves. He has also stopped giving answers to them directly. This process has helped him to reflect and understand that children learn by themselves and learn by doing. While carrying out with this action research he has also learnt

from students and made him think about various science phenomenon.

e) Enhancing competency in reading and writing the Hindi alphabet and words: Narendra Joshi and Sahabuddin Ansari

Paul Lockhart in his famous piece Lockhart's Lament says of the teaching of mathematics: 'And I haven't even mentioned the lack of mathematical criticism in school. At no time are students let in on the secret that mathematics, like any literature, is created by human beings for their own amusement; that works of mathematics are subject to critical appraisal; that one can have and develop mathematical taste.' While the state of language teaching is in no way as ruthlessly chopped as that of mathematics, the Whole Language Approach which Narendra Joshi and Sahabuddin Ansari adopted as the strategy for their Action Research Project to teach reading skills in Hindi, certainly helped the students to develop a taste for the language. In this video, we see the teachers relating the study of language to the real-life experiences of the student and helping them to 'experience' the language they were learning to read by presenting them with words rather than alphabets. These teachers faced a common problem: teaching the Hindi script to students who did not speak Hindi at home. They therefore worked with stories – writing a short, interesting narrative on chart paper and pinning it to the wall some days before the lesson, then reading it out to the students with gestures and actions, giving each student a copy of the story to read on their own, asking students to arrange the sentence strips from the story in a sequence and so on. In addition, they engaged in role play, games and other learning activities. In about 3 months, most of the students showed marked improvement in their reading ability.

This clip is not as tightly edited as the others and the teachers do tend to ramble a bit but in these conversations, one gets a sense of the efforts made by the teachers in the face of stumbling blocks- irregular attendance by the students, lack of support from the home environment, the need to catch up with the level of the class and so on. It was very apparent that the teachers drew heavily from the training programs that they had attended to conceptualise, understand and build on the strategies they adopted. This, in itself, is encouraging. Many teachers attend training programmes- how often do they get a take-away

which they implement in class? Not just this, a teacher watching this understands and identifies with the sense of evolving strategies from the slow, and often regressive, pace of the students. These videos are real and that, more than success stories, are what a teacher needs. The feeling expressed by the teacher that though the project ended, the work didn't will certainly strike an empathetic chord as will the need for a peer group which supports the teacher with ideas and innovative strategies.

f) Blending two approaches to teach language effectively: Madan Mohan Joshi

Madan Mohan was teaching EVS and took to teaching Hindi in class IV which is commendable. He found that few students (5) in his class IV could not read and write and even identify words in Hindi because of which they could not enjoy a poem or a story.

He tried to blend whole language and traditional approach to teach these kids. He introduced a story, made them read a word and then moved to letters. He challenged them by making them read a story in the reverse manner to test if they could really word.

More examples of strategies used by the teacher to blend traditional and whole-language approach could have been given. It is not very clear in this video. The claim made by the teacher that these five students could read almost all the words in few months is also questionable. He also claims that they could enjoy poems and stories as they could read. Madan made these five students work in a separate group and he was finding it difficult to manage two groups in the same class. Some background details of this teacher and his reflection of teaching EVS and moving to teach Hindi and how he found it would also have been helpful. This video could have been edited tightly and better structured. The teacher's efforts in documenting is very clear here.

Action research and reflective practice

Teaching is a reflective practice, the teachers

constantly evaluates his/her plans and evolve strategies or change the course of action to improve their practice. Reflecting on an experience and evolving a plan of action to improve the practice of teaching is recognised as 'reflective teacher model' (McMahon, 1999). Teachers involved in action research in this project also agree that their nature of work involves reflection and action.

As one watches these videos it is clear that this process of action research has helped these teachers think of their classrooms, their teaching-learning process, how children learn, strategies that might help children learn better, problems that learners face and so on. It has helped them reflect on their own assumptions. These teachers have helped students engage in learning. There is smile in their faces and joy of doing something effective as they have been able to see some changes in children's learning. This has also helped them to collaborate with other teachers, head of the school and discuss their problems and strategies. The documentation though tedious has helped them reflect and understand their journey.

These videos and the narratives also now serve as a useful resource for teachers and teacher educators as such examples in Indian context are close to nil. These can be used in workshops to understand the process of action research and can also serve as good self-learning materials. These examples might motivate other teachers to reflect and try out such strategies in their classroom.

For copies of the films, you may write to Shinto Mathew at shinto.mathew@azimpremjifoundation.org

References

Tim McMahon (1999), Is reflective practice synonymous with action research? *Educational Action Research*, 7:1, 163-169, DOI: 10.1080/09650799900200080

Sneha works as Assistant Professor in the School of Continuing Education, Azim Premji University. Sharing the beauty, logic and relevance of mathematics is her passion. She is the Associate Editor of the high school math resource 'At Right Angles' and she also mentors mathematics teachers from rural and city schools. Sneha conducts workshops in which she focusses on skill development through problem solving as well as pedagogical strategies used in teaching mathematics. She may be contacted at sneha.titus@azimpremjifoundation.org

Indumathi is with School of Continuing Education, Azim Premji University. Her interest and passion lies in science education, women and science and teacher professional development. She is pursuing her Ph.D. in education and working to understand the experiences of girls in science classrooms. She may be contacted at s.indumathi@azimpremjifoundation.org



Book Review: The Reflective Teacher - Case Studies of Action Research by Neeraja Raghavan; Orient Black Swan Chennai (2016), xii, 254 pages, INR 270.00

A Review by Gururaj K

“This book is very topical in the contemporary educational scenario and can be a trigger for a movement for reflective education.”

- S C Behar, Member of the Board, Azim Premji Foundation, Bangalore

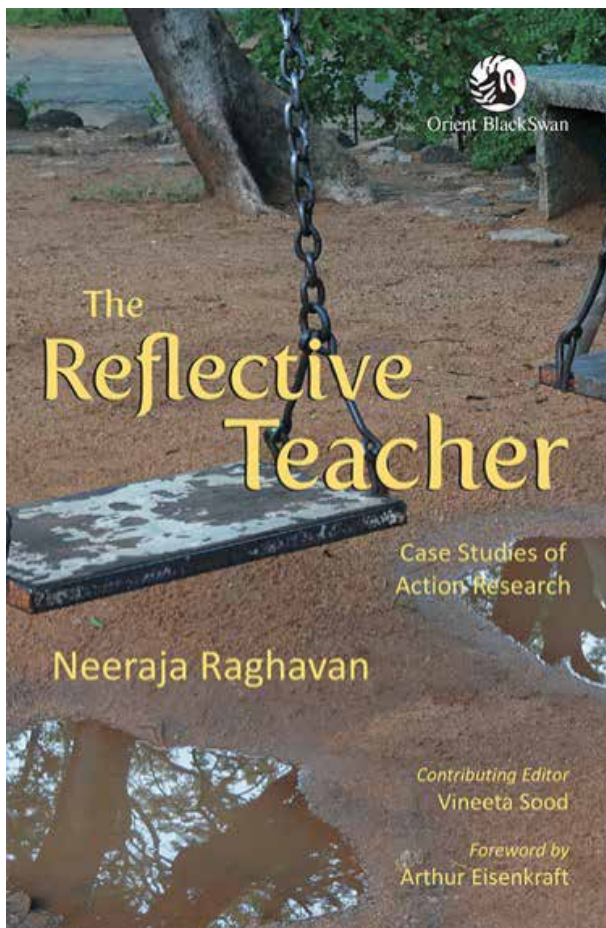
The author, Neeraja Raghavan, has for several years now pursued her passion for education and has done extensive work in teaching children and in teacher education. In this, her latest, book, she has systematically captured all the experiences and learnings that emerged during the five months (August-December 2013) of action research taken up by eight teachers and the Principal of Azim Premji School in Dineshpur, Uttarakhand. As principal investigator, she anchored this action research project, which was facilitated by members from Azim Premji Foundation.

As stated, ‘The book is intended to serve a readership of teachers, teacher educators, and students of graduate and post-graduate programmes in education, NGOs that work in the education sector, researchers and Heads of Schools. It is envisioned that the second section will meet the needs of the reader who would like to learn about practice, while the other two will be of greater interest to those who also wish to ground this practice in theory’ (Page 27).

The intent was to primarily enable the in-service teacher to blossom into a reflective practitioner, using action research as one way of assisting this emergence, the team from Azim Premji Foundation attempted to understand each teacher in some depth, observe classroom processes, facilitate each teacher’s action research, offer assistance in documentation of the action research in a systematic manner and finally, draw out from each teacher the learnings derived from conducting action research.

This book has three sections. Section I provides the reader with information about action research, reflective practice and teacher development and the criteria for choosing action research as the method to work with teachers. The author has quoted and made frequent references here to the theories of pioneers in this field such as Dewey, Schon and others. Objective of the study, the School where the study took place, profiles of teachers who took up action research, their assumptions and beliefs before they embarked on conducting action research are all covered in this section.

The chapter on teacher snapshots is very interesting. Here the teachers share their thoughts on areas such as the reason for opting for teaching as their profession, motivation, challenges and views about teaching and learning.



Section II provides a brief background of the facilitators who worked with the teachers. It is also a compilation of each teacher's individual profile and one classroom observation of that teacher (collated and observed by the facilitators) during the period of action research and contains the teachers' own documentation of the Action Research with some jottings from the facilitators' diaries. Relevant extracts from the post-action research video interview are included after transcribing and translating to English.

Section III explores the shifts in teachers' attitudes, assumptions and pedagogies during the course of action research, describes new insights gained and connects these to the teachers' prior system of beliefs and practices against the backdrop of current research in this domain.

On the question of whether reflective practice has been sustained in the school even after the study ended, the author is of the view that the aim of the study was to allow the emergence of the reflective practitioner from each teacher using action research as one possible means. It cannot therefore be deemed 'complete' with the successful completion of just one action research cycle by each teacher. Nor is it realistic to tick off the aim as ever being 'met', since reflection is an ongoing practice.

Teacher needs to be a lifelong learner and reflective practitioner

As stated, 'a classroom in a school can be regarded

as a potpourri of several elements: youth, freshness, vitality, regeneration. Thirty or forty pulsating minds, a teacher, lessons to learn and access to books – at the very least. Why, then, does teaching-learning frequently turn into a mechanical and repetitive process?

Unwittingly – and sometimes, even with awareness – the same lessons are transacted in more or less the same manner, year after year. In the daily rush to 'cover the syllabus', conduct mid-term tests and administer end-of-year examinations, teachers are often hard-pressed to find the time to address their own professional development in a regular, consistent manner' (Page 3).

Therefore to meet the ongoing, everyday challenges, to answer questions that spring from uniqueness, uncertainty and conflict, the teachers need to develop the quality of reflection.

A teacher needs to be a lifelong learner and reflective practitioner. The well documented case studies of action research, theories provided in this book would motivate and guide the Head Teachers, In-Service teachers, students studying to be teachers, NGOs in education and people concerned with learning in children to try out action research to become reflective practitioners. Guidelines towards the end of the book, questionnaires and action research template in the appendix will help carry out action research.

Published by Azim Premji Foundation for Development, Pixel 'B', PES college of Engineering Campus,
Electronics City, Bengaluru - 560100

Printed by S C P L, Bengaluru - 560062. Editor: Prema Raghunath

Homi Bhabha Centre for Science Education!
Tata Institute of Fundamental Research (A Deemed University)

Admission to PhD Programme in Science Education - 2017 (Advt. No. 01/2017)

We are looking for young people with

- Interest in science education
- Flair for teaching and writing
- Curiosity about how students learn
- Critical and analytical skills
- Commitment to improve education

Science and mathematics teachers and educators are also encouraged to apply. They would have to spend a minimum of two years at HBCSE and can do their research work while stationed at their parent institutions.

To submit the form online, to download the form and for more information about the admission please visit: <http://www.hbcse.tifr.res.in/admissions/>. For information about the PhD Programme please visit: <http://www.hbcse.tifr.res.in/graduate-school>

Note: This is a programme in education. It is not a pure or applied science research programme.

Areas of Research (More details at <http://www.hbcse.tifr.res.in/research-development>)

- Teaching and learning of science and mathematics from primary to undergraduate level
- Innovative curricula and assessment methods, experimental problem-solving in science
- Development of scientific and mathematical thinking in students at school and college level
- Design and technology in the curriculum
- Visual and spatial modes in learning
- Socio-cultural and gender factors in learning
- Science-Technology-Society-Environment Education
- Structure and dynamics of knowledge
- Discipline-based education research in physics, chemistry, biology, mathematics, astronomy and environmental science education

Eligibility

M.Sc. (in any subject), M. Tech or a Master's degree (M.A./ M.S.W.) in any of the social/ behavioural sciences/ psychology/ linguistics/ sociology/ economics/ anthropology or any allied disciplines, M.Ed.

Exam Fee

₹ 600 to be paid online or through DD (in favour of Homi Bhabha Centre for Science Education, TIFR and payable at Mumbai).

Important Dates

- Application submission deadline: March 15, 2017
- Written test: May 14, 2017
- Interview: June 3rd week, 2017

Scholarships

- ₹ 25000/- per month till registration, ₹ 28000/- per month post-registration
- Additionally, 30% HRA in lieu of on-campus institute accommodation
- Annual contingency grant of ₹ 32000/-

Admissions are made initially for one year, renewable annually up to a maximum of five years.

The offline applicants should send the completed form along with one passport size photograph and a demand draft for 600/- (non-refundable) to: Graduate School Admissions - 2017, Homi Bhabha Centre for Science Education, TIFR, V. N. Purav Marg, Mankhurd, Mumbai 400088.

A written test for eligible applicants will be held at seven Centres around the country: Chennai, Bengaluru, Pune, Mumbai, Delhi, Kolkata and Guwahati (provisional). Those who qualify will be called for an interview.

Phones: (022) 25072304/25072230; Fax: (022) 25566803; Email: admissions@hbcse.tifr.res.in

Look out for
the next Issue on

**Education Policies
and
their Practice**

Earlier Issues of the Learning Curve may be downloaded from <http://teachersofindia.org/en/periodicals/learning-curve> or http://www.azimpremjifoundation.org/Foundation_Publications or <http://azimpremjiuniversity.edu.in/SitePages/resources-learning-curve.aspx>

No. 134, Doddakannelli
Next to Wipro Corporate Office
Sarjapur Road, Bangalore - 560 035. India
Tel: +91 80 6614 4900/01/02 Fax: +91 80 6614 4903
E-mail: learningcurve@azimpremjifoundation.org
www.azimpremjifoundation.org

Also visit Azim Premji University website at
www.azimpremjiuniversity.edu.in



A publication from
Azim Premji University

For suggestions or comments and to share your views or personal experiences, do write to us at learningcurve@azimpremjifoundation.org