



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

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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 prerequisite 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, besides 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

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