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Defining Priorities for Quality Education

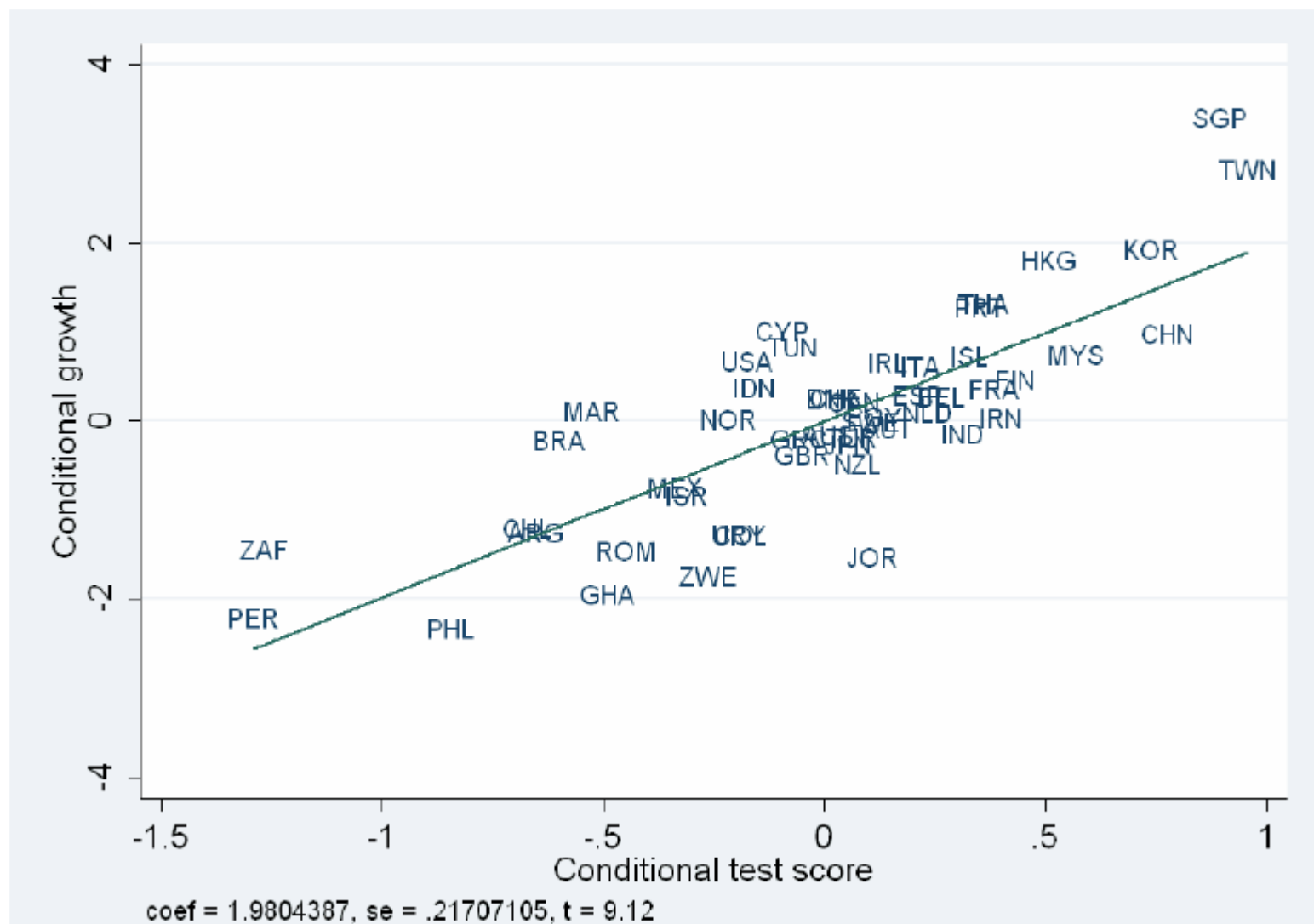
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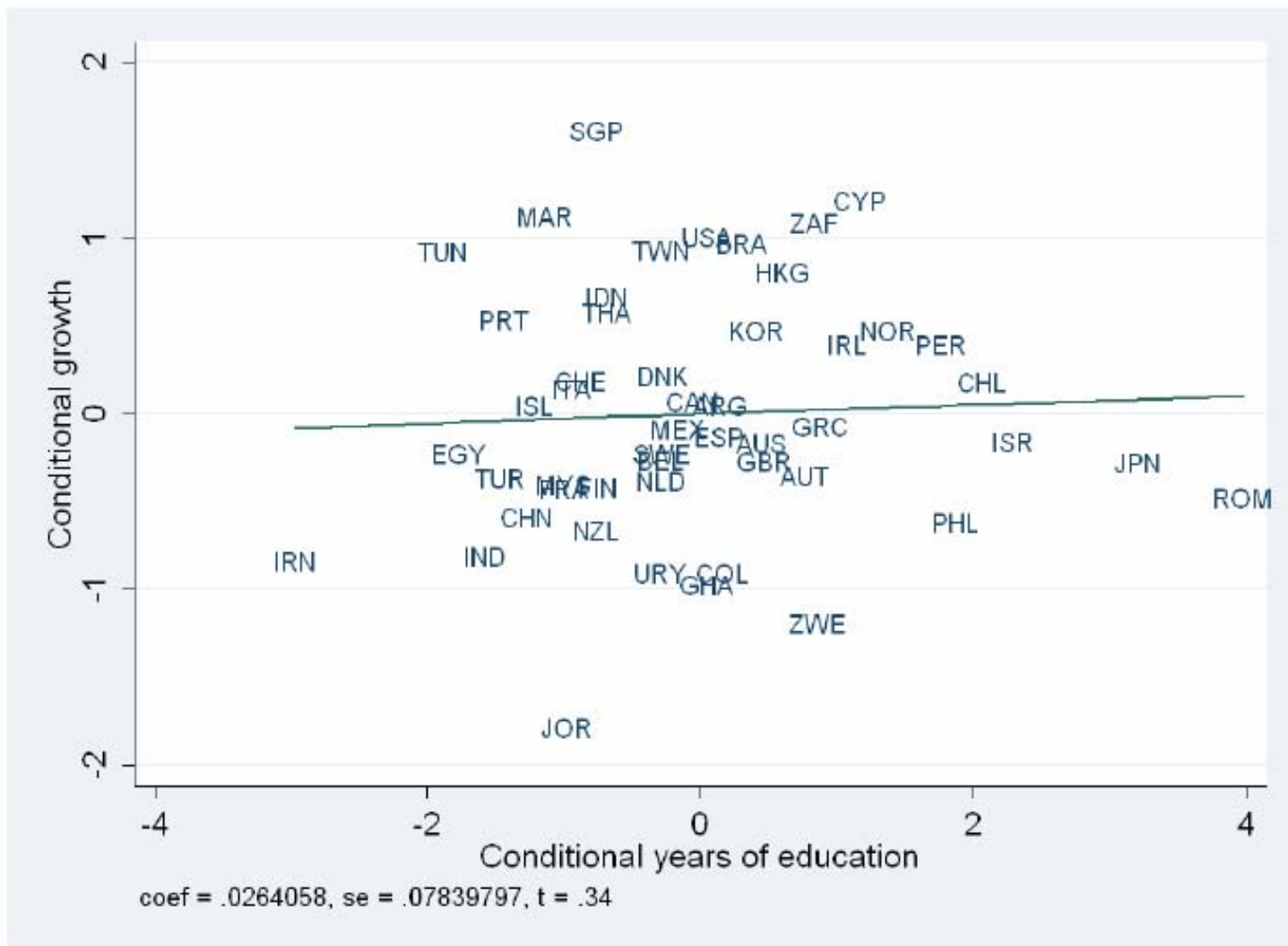
Geeta Gandhi Kingdon

The importance of quality education

- Quality measured in various ways
- Labour market rewards cognitive skills
- Growth of nations depends on it
- Quality will det. benefits from demog dividend
- Unless improve quality, universal partic may not happen

Figure 4.2: Added-variable Plots of Growth and Education





Notes: Added-variable plots of a regression of the average annual rate of growth (in percent) of real GDP per capita in 1960-2000 on the initial level of real GDP per capita in 1960, average test scores on international student achievement tests, and average years of schooling in 1960. Author calculations; see Table 4.1, column (2).

Plan

- Description
- Diagnosis
- RTE Act's solutions; other solutions
- Obstacles to reform & overcoming them

Description of the problem of quality

- High enrolment ~96% but not meaningful access
 - Attendance rate – on a given day in a random visit:
UP 56%, Bihar 44%, average across 5 states (AP, Assam, HP, Jharkhand, Rajasthan) 65%
 - Drop out, non-completion of primary or junior
- Part of reason for low participation – is low quality
- Pitiful cognitive achievement levels

State of quality in India - Achievement in Arithmetic

Standard (class)	Recognize Numbers			Subtract	Divide	Total
	Nothing	1-9	10-99			
I	34.2	42.1	18.2	3.4	2.1	100
II	12.1	34.9	36	12.8	4.3	100
III	5.6	21.0	36.9	27.0	9.4	100
IV	2.9	11.9	27.8	35.6	21.8	100
V	2.1	7.8	19.8	34.4	35.9	100
VI	1.2	4.5	14.1	30.8	49.3	100
VII	1.0	3.2	11.5	26.5	57.8	100
VIII	0.7	2.2	8.8	21.0	67.4	100

Source: ASER 2010, National data

At secondary level, the situation is not much better

Pass rates in examinations by the UP High School Examinations Board

Year	Percentage of exam-takers who passed		
	Regular candidates	Private Candidates	Total
1988	49.6	40.6	46.6
1989	47.6	39.4	44.8
1990	46.4	40.4	44.2
1991	61.2	52.2	57.0
1992	17.3	9.0	14.7
1997	52.4	36.4	47.9
2002	41.5	29.1	40.2
2008	NA	NA	40.1

Under Kalyan Singh's government, 1992

Diagnoses

Diagnosis 1: Low inputs

- Tacitly the RTE Act's diagnosis
- Lots of funds invested to increase inputs, esp. under DPEP, SSA
- RTE Act further ensures inputs (T qualif, training, minimum size of classrooms, max. PTR)
- But emphasis on inputs is misplaced; no evidence for efficacy of lower PTR, of T training, of T qualifications, etc. [3 papers on para teachers]

Findings of SchoolTELLS survey (2008)

Higher resources, lower effort

	UP		
	Reg.	Para	Priv.
Salary/month	12017	3000	940
Absence rate	24.6	12.0	17.4
% time teaching	75.3	83.3	89.0

Structure of accountability matters more than resources

Importance of evidence-based policy making in education

- Education policy needs to be increasingly made on basis of evidence
- Imp role of methodology in gathering evidence
- Imp to carefully analyse data to establish causal relations

Diagnosis 2 – low teacher competence

- Evidence

Teacher Competency

Do teachers have adequate skill and capability to teach ?

Background: Subject matter or content knowledge is not a pre-requisite for teacher recruitment.

Assumption 1: Teacher education and training ensure skills (may not be true)

Assumption 2: Deficits in skills can be plugged with in-service training (potentially risky policy)

Anecdotally, there is concern about teachers' skill and capability to teach especially in the case of "para teachers".

Whether in India or internationally relatively few attempts on large scale to measure teacher ability to teach in a quantitative way.

SchoolTELLS study

Followed schools, teachers and children for a full school year 2007-2008.

The aim was to get a better understanding of teachers and teaching, children and learning and of overall functioning of schools.

160 schools from 5 districts each in UP and Bihar

Each school was visited four times during the school year 2007-2008

Approximately 500 teachers participated in this study

Study covered government primary schools as well as private schools in the sampled village

There were a series of questionnaires that were administered in these schools on organization of time, children's learning, teachers' background etc

**THIS SECTION IS FROM THE
TEACHER ASSESSMENT
SECTION OF THE STUDY**

UNDERSTANDING ABILITY TO TEACH

Assessment tasks for teachers aligned with standard teaching tasks that teachers in primary school would be required to do in the classroom routinely.

The **language tool** has questions to enable us to understand teacher's ability in the following:

- **Do you know**: e.g. meaning of difficult words in text
- **Can you explain** : e.g. explain difficult words in simple language or summarize text effectively
- **Can you spot common mistakes**: e.g spelling and grammar mistakes

The **maths tool** also has questions to enable us to understand the teacher in the following way:

- **Do you know**: e.g. solve problems Std 4 or 5 level
- **Can you explain**: e.g. explain problem solving in simple steps
- **Can you spot and analyze common mistakes** : e.g in arithmetic operations

TASK 1: VOCABULARY RELATED TASKS

From Std 3 onwards, the vocabulary in language textbooks become difficult. So, teachers need to be able to explain difficult words in simple language.

Sample of words from state textbooks:

From UP textbook : *Bhasha Kiran Std 4*

निद्रामग्न
अनिवार्य
सत्यप्रिय
वेदनापूर्ण
मस्तिष्क

अप्रसन्न
पूर्णतः
जन्मसिद्ध

From BH textbook : *Bal Bharti Std 4*

पारदर्शी
व्याकुल
दीक्षा

दुर्दशा
दिनचर्या

Sample question from teacher test:

नीचे कुछ कठिन शब्द दिये गये हैं। इन शब्दों का सरल शब्दों में अर्थ लिखें।

चिंतामग्न

आतिथ्य

गुस्ताखी

श्रद्धांजली

Grading done on 3 criteria:

- Was the word meaning "meaningful" ?
- Was the language used "easy to understand" ?
- Were there any spelling mistakes ?

VOCABULARY TASKS : DO TEACHERS KNOW WORD MEANING?

Four difficult words are given. Please write their meaning using simple words

TASK WITH DIFFICULT WORDS	Bihar govt. schools		UP govt. schools		Bihar/ UP		ALL
	Reg.	Para 05	Para 06	Reg.	Para	Private	All
	Word meaning						
Not attempted	8.8	10.8	10.2	5.0	8.3	12.5	9.4
Wrong meaning	35.5	33.4	35.4	27.2	29.3	32.0	32.2
Partial meaning	12.4	14.8	17.3	16.9	13.5	15.1	14.9
Full meaning	42.4	41.0	37.1	50.8	48.9	40.4	43.4
% struggling with task							
No attempt or wrong meaning	44.3	44.2	45.6	32.2	37.6	44.5	41.6

VOCABULARY TASKS : CAN TEACHERS EXPLAIN IN SIMPLE WORDS? SPELLING MISTAKES?

TASK WITH DIFFICULT WORDS	Bihar govt. schools			UP govt. schools		Bihar/ UP	ALL
	Reg.	Para 05	Para 06	Reg.	Para	Private	All
Of those writing meaningful words							
Explanation easy to understand							
Easy to Understand	87.4	83.7	88.1	89.3	88.5	93.2	88.4
Any spelling errors in words written?							
No spelling error	79.9	77.8	73.8	85.2	85.3	85.1	81.4
Spelling errors	20.1	22.2	26.2	14.8	14.7	14.9	18.6

From Std 3 onwards, textbook chapters have lengthy texts, harder syntax and sentence structure and vocabulary. So, teachers need to be able to summarize text in simple language.

Grading done on 3 criteria:

- Was the summary “meaningful” ?
- Was the language used “easy to understand” ?
- Were there any spelling mistakes in what the teacher wrote ?

TASK 2 : SUMMARIZING TEXTS

Sample text from teacher test:

एक दिन एक बूढ़ा व्यक्ति सड़क के किनारे आम का पौधा लगा रहा था। वह इतना बूढ़ा था कि उसके हाथ-पैर तक काँप रहे थे। संयोगवश उसी समय वहाँ से राजा की सवारी निकली। उस बूढ़े आदमी को पौधा लगाते देख वे बोले, “बाबा, भला इस उम्र में यह पौधा क्यों लगा रहे हो? आपका एक पैर तो कब्र में है। क्या आप इसके फल खा सकेंगे?”

राजा की बात सुनकर बूढ़ा आदमी मुस्कराया और बोला, “महाराज! जिस पौधे को मेरे बाप-दादा ने लगाया था उसके फल मैं खा रहा हूँ और जो पौधा मैं लगाऊँगा उसके फल मेरे बेटे-पोते खायेंगे। यह ज़रूरी नहीं कि जो पौधा लगाए वही उसका फल खाए। पेड़-पौधे तो समाज की धरोहर होते हैं।”

राजा उस बूढ़े आदमी की बात सुनकर बहुत प्रसन्न हुए। उन्होंने अपने मंत्री से कहा, “मंत्री जी ! बाबा को मेरी ओर से सौ मोहरे भेंट के रूप में दे दीजिए। ये बड़े परोपकार का काम कर रहे हैं।”

बूढ़े आदमी ने मोहरे को स्वीकारते हुए कहा, “धन्यवाद अब आप ही देखिए न, मुझे तो इस पौधे का फल इसी जन्म में मिल गया, महाराज।”

SUMMARIZING TEXTS : EXAMPLES FROM TEACHERS

7. उपरोक्त अनुच्छेद का सारांश अधिकतम दो वाक्यों में लिखें। (सरल भाषा का प्रयोग करें जिससे कि बच्चे आसानी से समझ सकें।)

बूढ़ा आदमी था जो समझदार था। उसने इतनी अधिक उम्र में पौधा लगाया लच्छों पेड़, पौधों हमारे लिए अधिक आवश्यक है। इसलिए हमें उसी तरह की तरह काम करना चाहिए।

7. उपरोक्त अनुच्छेद का सारांश अधिकतम दो वाक्यों में लिखें। (सरल भाषा का प्रयोग करें जिससे कि बच्चे आसानी से समझ सकें।)

एक बार एक राजा ने देखा कि एक बूढ़ा आदमी आम का पौधा लगा रहा है। राजा उसके इस परोपकार के कार्य को जानकर खुश हुआ और उसने उस व्यक्ति को इनाम में सौ मोहरें भेंट कीं।

SUMMARIZING TEXTS : CAN TEACHERS SUMMARIZE ?

TASK WITH PASSAGE	Bihar govt. schools		UP govt. schools		Bihar/ UP	ALL	
	Reg.	Para 05	Para 06	Reg.	Para	Private	All
Gave meaningful summary?							
Not attempted	3.5	2.4	5.6	3.3	2.6	8.6	4.4
Irrelevant/wrong	25.4	27.0	40.5	28.6	40.2	37.9	33.0
Partially meaningful	25.4	15.9	22.5	9.9	16.2	16.4	17.9
Fully meaningful	45.6	54.8	31.5	58.2	41.0	37.1	44.7
% Struggling with task							
	28.9	29.4	46.1	31.9	42.8	46.5	37.4

SUMMARIZING TEXTS : CAN TEACHER SUMMARIZE USING SIMPLE LANGUAGE

TASK WITH PASSAGE	Bihar govt. schools			UP govt. schools		Bihar/UP	ALL
	Reg.	Para 05	Para 06	Reg.	Para	Private	All
Of those writing meaningful summary							
Summary easy to understand							
Easy to Understand	71.2	69.6	78.6	79.3	81.3	73.8	75.0
Are there any spelling errors?							
No spelling error	32.0	29.1	28.2	54.7	48.2	46.7	39.6
1-2 Spelling errors	44.3	38.5	25.6	30.2	35.5	34.4	35.3
>=3 spelling errors	23.7	32.5	46.2	15.1	16.4	18.9	25.1

TASK 3: SPOTTING SPELLING & GRAMMATICAL MISTAKES

9. नीचे दिए गए अनुच्छेद में कुछ सामान्य गलतियाँ हैं। अनुच्छेद को ध्यानपूर्वक पढ़ें एवं गलतियों में घेरा लगाएं।

चित्रकार अपनी कुँची और रंगों से सुन्दर चित्र बनाते हैं, तो मुर्तिकार अपना छेनी और हथौड़ी से पत्थरों में जान फूँक देते हैं। घर, पुल, सड़क आदि को बनानेवाले ऐसे ही कुशल कारिगर होता है। इन सभी लोगों को आप क्या कहते हैं। ये सभी कुषल कारीगर हैं। इन्हें शीलपी भी कहते हैं। बहुत से लोग और भी अलग-अलग चीजें बनाते हैं।

Spotting mistakes	Bihar			UP		BH/ UP	All
	Reg	Para 05	Para 06	Reg	Para	Pvt	All
% teachers choosing 1 or more correct word as "wrong"	53.5	43.4	47.2	46.1	44.4	46.5	46.8
% teachers who found only 3 or less spelling mistakes	58.7	61.3	66.4	31.9	36.8	45.7	50.3
Note: There were 6-7 spelling mistakes in each of the samples.							

TASK 4 : PERCENTAGE PROBLEM : Findings

	Bihar				UP			All
TASK PERCENTAGE WORD PROBLEM	Reg.	Para 05	Para 06	Priv.	Reg.	Para	Priv.	
Not attempted	14.4	12.0	26.4	37.0	16.7	23.5	28.6	20.6
Incomplete	32.7	48.8	46.2	25.9	40.0	40.0	54.6	42.6
Wrong steps	5.8	6.4	5.5	11.1	10.0	3.5	1.3	5.7
Correct steps wrong answer	3.9	6.4	3.3	3.7	4.4	7.0	1.3	4.6
Correct answer no steps	0.0	1.6	3.3	0.0	1.1	4.4	2.6	2.1
Solved correctly	43.3	24.8	15.4	22.2	27.8	21.7	11.7	24.5
% Struggling	52.9	67.2	78.1	74.0	66.7	67.0	84.5	68.9

TASK 5 : ARITHMETIC : AREA PROBLEM FINDINGS

AREA PROBLEM TASK	Bihar				UP			All
	Reg.	Para 05	Para 06-07	Priv.	Reg.	Para	Priv.	
No attempt	27.9	28.8	38.5	51.9	30.0	48.7	41.6	36.6
Incomplete	19.2	25.6	26.4	7.4	18.9	19.1	26.0	21.8
Wrong steps & A	5.8	4.0	1.1	3.7	7.8	3.5	2.6	4.1
Correct steps, wrong A	3.9	3.2	8.8	0.0	4.4	1.7	5.2	4.1
Only correct A, no steps	4.8	5.6	3.3	0.0	8.9	4.4	9.1	5.5
Solved correctly	38.5	32.8	22.0	37.0	30.0	22.6	15.6	27.9
% struggling with task (row 1 to 3)	52.9	58.4	66.0	63.0	56.7	71.3	70.2	62.5

TASK 6 : SPOTTING & UNDERSTANDING COMMON MISTAKES IN ARITHMETIC

Example 1:

$$\begin{array}{r} 19 \\ + 87 \\ \hline 916 \\ \hline \end{array}$$

Question for teacher: Looking at this child's work, what can you say about what the child knows

Teachers' responses:

All types of teachers – regular, panchayat shikshak, private school teacher

~ 650 teachers from 10 districts

95% of teachers say that this child knows numbers 1 to 10

87% of teachers say that this child does not know carryover

70% say that the child does not know place value

For the simple addition problem: Most teachers know what the child knows & what s/he does not know

TASK 6 : SPOTTING & UNDERSTANDING COMMON MISTAKES IN ARITHMETIC

Example 2

$$\begin{array}{r} 9 \overline{) 927} \quad (103 \\ \underline{9} \\ 27 \\ \underline{27} \\ 00 \\ \underline{00} \\ 00 \end{array}$$

$$\begin{array}{r} 9 \overline{) 927} \quad (13 \\ \underline{9} \\ 27 \\ \underline{27} \\ 00 \\ \underline{00} \\ 00 \end{array}$$

$$\begin{array}{r} 9 \overline{) 927} \quad (98 \\ \underline{81} \\ 17 \\ \underline{18} \\ 00 \end{array}$$

Samples of children's work shown. Teachers asked to choose...

% Teachers did the following:	Bihar Govt. Regular	Bihar Govt. Para	UP Govt. Regular	UP Govt. Para	Bihar UP Pvt.	All teachers
Chose wrong option	15.8	22.6	15.4	26.5	25.9	21.7
Chose correct option	84.2	77.4	84.6	73.5	74.1	78.3

Teachers' own views about their difficulties in maths teaching

Percentage of teachers who say they agree with the statement
“Sometime I have difficulties in addressing mathematical queries and problems of my students”

	BIHAR				UP			
	Fully agree	Parti ally agree	Some what agree	Dis agree	Fully agree	Parti ally agree	Some what agree	Dis agree
Govt. school teachers	24.5	11.0	46.8	17.7	15.2	18.3	43.1	22.3
Private school teachers	16.7	12.5	45.8	25.0	16.9	18.5	36.9	27.7

Only about 20% of govt. school teachers believe they don't face problems.

About 80% admit to have difficulties sometimes.

This suggests possible interest in in-service training to upgrade maths skills

Points to think about

The basic findings –
teachers' knowledge of subject matter & the ability to
communicate – both need to be strengthened urgently.

Allocations in SSA for teacher training (pre-service and in-service) provide an excellent opportunity to build teacher knowledge and teaching skills. This is especially true where recent large scale teacher recruitment has happened.

- simple assessment tasks at the beginning of training sessions will provide inputs for training of teachers
- ensuring that teacher is very familiar and confident with subject matter – both based on textbook and beyond
- guaranteeing “practice” during training so that later in a classroom situation the teacher's ability to communicate is assured.

Diagnosis 3 – low teacher effort

Diagnosis 3 – low teacher effort

- Evidence - absence & low time on task
- Suggests low accountability
 - Assured jobs for life
 - No rewards for good performance
- Evidence suggests that people respond to incentives
 - PRP paper – Karthik Muralidharan
 - Attendance-contingent paper - Duflo/Hanna

Teacher effort measured by absence rate

Table 1
Provider Absence Rates by Country and Sector

	Absence rates (%) in:	
	Primary schools	Primary health centers
From this project:		
Bangladesh	16	35
Ecuador	14	--
India	25	40
Indonesia	19	40
Peru	11	25
Uganda	27	37
Unweighted average	19	35

Source: Chaudhury, Hammer, Kremer, Muralidharan, Rogers (2005).

Private school teachers 8% points less absent than govt. school teachers

Obstacles to increasing school accountability

Obstacles to increasing school accountability

- political economy obstacles
- Ts are a strong group
 - T are large in number – electorate
 - T are an influential group as most educated
 - T are powerful, manning poll booths
 - Have strong unions
 - T have resisted decentralisation – e.g. panchayat
 - T use pressure tactics to compel govts – exam frisking
 - T are within government, as MLCs & MLAs

Teachers' representation in upper house (Legislative Council) – UP bicameral

- Teachers have constitutionally guaranteed right to be represented in the upper house
- Article 171(3c) provides 1/12 of MLCs shall be elected by teachers of secondary schools & above
- Non-govt (mainly Aided) secondary school teachers enjoy privileged political position – have guaranteed representation
- Much debate in CA about this provision
- Strongly dissenting voices about singling out secondary school T, & concerns about potential politicisation of Ts.
- PSS demanding primary teachers be given privilege

The 'office of profit' provision

- Private aided school teachers can also enter Lower House
- Anomalous position of aided school teachers – developed over time
- No other govt. paid employees have this special right
- Govt. employees resent this privileged treatment
- Various High Courts and Supreme Court of India have maintained
 - aided school T do not hold an office of profit
 - So cannot be held disqualified to contest elections, and
 - Needn't resign from their posts if elected as MLCs or MLAs
- Taking advantage of job security, aided Ts contest elections for LBs, municipalities, town corporations, Legislative Assemblies, Parliament
- Consequently, Aided school T have become politically more active
- T in government schools in UP demanding equal rights

Attempts to abolish guaranteed representation of teachers

- The Chief Election Commissioner of India in 1965 suggested the abolition of teacher constituencies, on the grounds that ‘apart from there being no justification for singling out the teaching profession for special treatment, it seems to me undesirable that teachers should be dragged into party politics in this manner.’
- Matter also considered by Central Government on 7 occasions between 1957 and 1979; no change in status quo
- In early 1990s, Central Advisory Board on Education (CABE) also sought states’ views. Based on these, the CABE committee report stated: “the nature and extent of politicisation of teachers through involvement in elections in the context of the constitutional provision for their representation in Legislative Councils came up for discussion in various aspects. An apprehension was expressed that extending voting rights to elementary (school) teachers would further aggravate the situation. The sufferers would be the children in particular and the elementary education system in general. Such a situation would not be in accordance with the spirit of the provisions of the Constitution.....The Committee, therefore, is of the opinion that there is no need to retain the present provision of separate constituency for teachers in Legislative Councils” (CABE, 1992).
- Its recommendations never carried out
- Special status of teachers continues as is

Implications

- Guaranteed representation has led to substantial political penetration in both upper and lower house

Teacher representation in UP Legislative Council, various years

Year	Total seats	Teacher Members	Ex-teacher members	Total Teachers	Teachers as % of total
1952	72	7	5	12	17
1954	72	7	4	11	15
1956	72	6	4	10	14
1958	108	10	4	14	13
1960	108	12	4	16	15
1962	108	16	2	18	17
1964	108	14	3	17	16
1966	108	10	4	14	13
1968	108	12	2	14	13
1970	108	14	2	16	15
1972	108	14	0	14	13
1974	108	18	1	19	18
1976	108	17	3	20	19
1978	108	14	1	15	14
1980	108	15	0	15	14
1982	108	16	2	18	17
1984	108	19	5	24	22
1986	108	13	0	13	12
1988	108	17	1	18	17
1990	108	15	1	16	15
1992	108	16	4	20	19
1994	108	15	3	18	17
1996	108	16	3	19	18
1998	108	14	0	14	13
2000	100*	17	6	23	23
2002	100	16	7	23	23
2004	100	17	5	22	22
2006	100	15	4	19	19
2008	100	14	4	18	18
Average	103	14	3.23	16.9	16.6

Table 2: Teacher MLAs in Legislative Assembly, various years

Legislative Assembly	Total <u>MLAs</u>	Teacher <u>MLAs</u>	Teacher <u>MLAs</u> as % of total
First Assembly (1952-57)	430	NA	NA
Second Assembly (1957-62)	430	11	2.6
Third Assembly (1962-67)	430	26	6.0
Fourth Assembly (1967-69)	425	21	4.9
Fifth Assembly (1969-74)	425	27	6.4
Sixth Assembly (1974-77)	425	22	5.2
Seventh Assembly (1977-80)	425	23	5.4
Eighth Assembly (1980-84)	425 (421)	39	9.2
Ninth Assembly (1984-89)	425 (422)	30	7.1
Tenth Assembly (1989-91)	425 (422)	27	6.4
Eleventh Assembly (1991-93)	425 (401)	36	8.5
Twelfth Assembly (1993-96)	425 (422)	46	10.8
Thirteenth Assembly (1996-2002)	425	37	8.7
Fourteenth Assembly (2002-07)	404	24	5.9
Average	424	28.4	6.6

Note: Figures in brackets show the actual strength of members.

Source: The table is based on the records as available in the Assembly Library, Lucknow.

**Teachers' participation in politics and connections with politicians,
Uttar Pradesh 2008**

	Primary	Secondary	Total
% who have met or know a teacher MLA			
Govt. schools	6.6	26.3	12.1
Aided schools	--	35.3	35.3
Private schools	6.3	19.8	13.5
Total schools	6.5	27.5	16.9
% who have met or know a teacher MLC			
Govt. schools	4.6	22.7	9.6
Aided schools	--	48.0	48.0
Private schools	6.3	23.3	15.3
Total schools	5.1	32.6	18.6

Why teachers maintain such high levels of contact with teacher MLCs / MLAs ?

- Reason – Teacher MLCs / MLAs are effective in helping teachers:
 - Transfers
 - Dispute resolution
 - Cases of suspension
 - Getting ministerial appointments
- This is the logic why teacher candidates for MLA are supported by teachers, and once in office they help teachers, even though elected from general constituency
- However, still teacher MLCs greater help than MLAs

Teacher Unions

- Teacher unions key stakeholders shaping school governance environment
- Different TUs for different teacher groups
 - RSS for govt. secondary school teachers
 - PSS for govt. primary school teachers
 - MSS for aided sec. school teachers
 - VSS for private school teachers
- Influence of unions gauged
 - Partly by % paid up members, active, take union help, voting
 - Partly by success with which unions have lobbied

Teacher union membership, by school level and school-type

	Primary schools	Secondary schools	Total
Self reported union membership status			
Govt. schools	84.7	84.0	84.5
Aided schools	--	85.3	85.3
Private schools	5.1	36.7	21.9
% of teachers in your school who are members of the teacher union			
Govt. schools	83.3	86.7	84.2
Aided schools	--	90.8	90.8
Private schools	10.3	56.6	35.0
% teachers who have ever taken help From their teacher union *			
Govt. schools	30.8	25.0	29.2
Aided schools	--	43.7	43.7
Private schools	15.9	20.9	18.4
% teachers who say the teacher union helps to address the problems they have+			
Govt. schools	76.4	66.7	73.7
Aided schools	--	75.5	75.5
Private schools	5.0	38.5	26.2

% teachers who ever participated in strike/meeting/protest organized by a teacher union				
Govt. schools	62.2	68.4	63.9	
Aided schools	--	76.5	76.5	
Private schools	3.2	20.0	13.7	
Total	47.7	53.4	50.6	
% teachers saying they discuss among themselves to reach agreement who they will vote for in an election and vote en bloc				
Govt. schools	47.2	50.0	48.0	
Aided schools	--	72.5	72.5	
Private schools	10.9	37.7	27.6	
Total	38.3	53.5	46.2	
Of those saying they vote en bloc, % saying their teacher union motivates them to vote en bloc in elections				
Govt. schools	45.2	55.3	48.1	
Aided schools	--	67.6	67.6	
Private schools	0.0	52.5	44.7	
Total	42.0	60.5	53.2	

Implications for teacher accountability

- A number of teacher accountability measures exist in UP, such as
 - school inspections
 - character book
 - teacher transfers
 - provision for suspension
 - withholding the salary increment
- Not effectively implemented – as T use their political connections and union influence to avert disciplinary action
- All politicians woo teachers but *teacher* politicians specially
- Use their considerable influence and ministerial connections etc. to shelter teachers
- What evidence for this claim?
 - Newspaper stories about incidents in which teacher MLCs involved
 - Teacher union magazines

Example 1: DAV college

- DAV College, Kanpur decided to rationalise staff strength due to very lower PTR
- Teachers given the option to continue in other aided colleges as per GOUP rules, but T became adamant not to move
- MSS came to help by organising a *dharna* (on 16 July 2007) at the college premises.
- All leaders, including the MSS President and Secretary raised slogans against the management and GOUP. They succeeded in stalling the implementation of the order (*Santusht*, Aug 07).
- TU leaders and T legislators also influence **macro** accountability structures

Example 2: Intermediate Education Board

- March 2007, GOUP passed an Act re. reconstitution of 'Intermediate Education Board'.
- Amendment provided for nomination of some non-teacher members in 72 member board.
- MSS opposed, wanted only members elected out of the teacher leaders
- GOUP had to withdraw this Act after *Dharna* of the MSS leaders in the Well of the House itself
- Newspapers next morning had banner headlines. E.g.:
- "Govt. Withdraws Bill Passed by Houses" *Hindustan Times*, Lucknow 13.3.07
- "Shiksha Sanshodhan Bill in for Reconsideration", *Times of India* (13.3.07)
- "Vaapas Lena Para Sadan mein Parit Vedheyak", *Rashtriya Sahara* (13.3.07)
- Case of political pressurization - GOUP had to withdraw a duly passed Act

Example 3: MSS forces education minister's hand

- Corruption in secondary school exams is endemic (tables)
- In 2008, the Education Minister commented against T corrupt practices in examinations; proposed a policy of screening teachers at exam halls (Ballia DIOS received death threats)
- MSS organized *dharnas* on 25 Feb. 08 and decided to boycott Board examinations beginning 4 Mar 08. They burnt effigies of the Education Minister in places like Lucknow and Azamgarh
- They were able to force GOUP to announce that enquiries ordered by the Education Minister would be reviewed ('punarvichaar')
- Decided teachers would not be screened before entering the examination halls; then the MSS withdrew its examination boycott call. (*Santusht* , March 2008)

Problem of cheating in secondary exams

Pass rates in examinations by the UP High School Examinations Board

Year	Percentage of exam-takers who passed		
	Regular candidates	Private Candidates	Total
1988	49.6	40.6	46.6
1989	47.6	39.4	44.8
1990	46.4	40.4	44.2
1991	61.2	52.2	57.0
1992	17.3	9.0	14.7
1997	52.4	36.4	47.9
2002	41.5	29.1	40.2
2008	NA	NA	40.1

Examination control/ management

36. In your opinion, how satisfactorily are the board examinations conducted ? **(Circle any one option)**

Fully satisfactory.....	1	Somewhat satisfactory.....	3
Quite satisfactory.....	2	Unsatisfactory	4

37. Have you heard of incidents where students were involved in cheating ?

Never heard.....	1	Commonly heard.....	3
Sometimes heard.....	2	Heard after every exam.....	4

38. Considering the reality of your district, what percentage of students in your district practice cheating in std 10 board examinations percent students

39. What are means by which a high school teacher helps examinee of std. 10 board examination **(Circle all options that apply)**

Passing note slip.....	1	Allowing students to move outside exam. hall....	5
Ignoring cheating	2	Other (express).....	6
Leak out question paper.....	3	Don't Help.....	7
Verbally giving answer.....	4		

40. If a teacher doesn't help in cheating or corruption in the board examination then what are different circumstances he/she faces ? **(Circle three most important options)**

Trouble from students/ parents	1	Pressure from school principal/ management...	5
Pressure from teacher union.....	2	Other (express).....	6
Pressure from education mafia.....	3	Did not face any problem.....	7
Pressure from colleague teachers.....	4		

41. In your opinion, what percentage of high school teachers of this district are involved in the examination related financial corruption ?

Teachers accepting money for providing unfair means during examination..... Percent teachers

Teachers accepting money for favoring students in grading of answer papers Percent teachers

Board examination related corruption in your district, Uttar Pradesh

	Primary school respondents	Secondary school respondents
% of students in your district who cheat in std 10 board examination:		
Govt	27.0	25.6
Aided	---	29.1
Private	30.8	34.4
% of teachers who accept corruption money for providing unfair means during exams:		
Govt	38.7	32.2
Aided	---	22.8
Private	22.4	36.4
% of teachers who accept corruption money for favouring students in grading scripts:		
Govt	36.2	28.6
Aided	---	18.6
Private	20.4	34.5

**In what ways do teachers help students
to cheat in Class 10th board exam?**

	Secondary school respondents		
	Govt.	Aided	Private
Don't help	60.5	32.0	38.5
Passing note slip	3.9	17.5	21.1
Ignoring cheating	23.7	41.7	41.3
Leak out question paper	0.0	4.9	2.8
Verbally giving answer	32.9	60.2	44.0
Allowing pupils out of hall	7.9	7.8	11.9
Other ways	1.3	1.0	2.8

Source: Authors' calculations from RECOUP (2008) data

Note: the columns don't add up to 100 because respondents could mention all the options that applied, i.e. they did not have to choose only one main method of helping.

Qualitative evidence

- National Commission on Teachers (1986) supports notion that environment serves to avert proper use of acc. measures
- Commission ruled that union-backed teachers did not fear adverse repercussions if they are lax in their work
 - “some of the Principals deposing before it (i.e. before the Commission) lamented that they had no powers over teachers and were not in a position to enforce order and discipline. Nor did the District Inspectors of Schools and other officials exercise any authority over them as the erring teachers were often supported by powerful teachers’ associations. We were told that that there was no assessment of a teacher’s academic and other work and that teachers were virtually unaccountable to anybody” (NCT, 1986, p68).

Teacher union stances (and influence) on decentralising reform proposals

Teacher salary as a proportion of pc GDP

- Per capita GDP of UP (2005) - Rs. 16473 (annual)
- Govt. primary school teacher salary in 2007 was Rs. 11851 (per month)
- Assuming salary rose 5% per year and deflating back to 2005, Rs. 10749 pm or Rs 128,988 annual.
- Thus, ratio of teacher salary to pc GDP = 7.8 in UP (before 6th Pay Comm)
- In Bihar, monthly teacher pay in 2007 Rs. 11691 deflated to 2005 is Rs. 10604 pm or Rs. 127249 annual.
- Bihar's pc GDP in 2005 - Rs. 9600 annual.
- Thus, ratio of teacher salary to pc GDP = 13.3 in Bihar (before 6th Comm)
- Ratio for Asia = 2.9
- Ratio for countries with pcGDP < \$2000 = 3.7
- for developed countries ratio 1.2 – 1.6

Effects on pupil learning outcomes

- Survey of teachers merged with SchoolTELLS survey – only for sample primary schools
- Tested students of grades 2 and 4
- Achievement levels in language and maths
- Converted into z-scores
- School FE estimator – reduces endogeneity bias

Table 10
Achievement equation, government primary schools only, UP
 (Dependent variable: z-score of achievement mark)

	Ordinary Least Squares			School Fixed Effects		
	(1)	(2)	(3)	(4)	(5)	(6)
Class 4	0.240*** (16.55)	0.239*** (16.61)	0.235*** (16.20)	0.285*** (17.15)	0.278*** (16.91)	0.285*** (17.13)
Subject Maths	-0.0560*** (-2.92)	-0.0579*** (-3.01)	-0.0585*** (-3.05)	-0.0664*** (-3.66)	-0.0674*** (-3.71)	-0.0675*** (-3.71)
Wave 2	0.0983*** (14.59)	0.0981*** (14.57)	0.0981*** (14.57)	0.104*** (16.38)	0.103*** (16.31)	0.104*** (16.36)
Child characteristics						
Age	0.0171** (2.02)	0.0171** (2.02)	0.0182** (2.14)	0.0553*** (6.46)	0.0555*** (6.48)	0.0555*** (6.48)
Male	0.127*** (6.56)	0.122*** (6.29)	0.119*** (6.18)	0.147*** (7.75)	0.144*** (7.55)	0.146*** (7.66)
Log weight (kg)	0.654*** (7.32)	0.658*** (7.37)	0.659*** (7.38)	0.495*** (5.81)	0.502*** (5.88)	0.496*** (5.82)
Height (cm)	0.0072*** (4.04)	0.0070*** (3.96)	0.0071*** (3.98)	0.0058*** (3.32)	0.0057*** (3.28)	0.0057*** (3.29)
Recently ill§	-0.0793*** (-4.00)	-0.0765*** (-3.87)	-0.0776*** (-3.92)	-0.0938*** (-4.92)	-0.0926*** (-4.85)	-0.0936*** (-4.91)
Mother education	0.0423*** (10.11)	0.0430*** (10.32)	0.0427*** (10.21)	0.0427*** (10.65)	0.0427*** (10.66)	0.0426*** (10.64)
Ln assets	0.101*** (8.21)	0.103*** (8.32)	0.103*** (8.37)	0.0591*** (4.95)	0.0605*** (5.06)	0.0601*** (5.02)
Teacher characteristics						

Achievement equation, government primary schools only, UP
(Dependent variable: z-score of achievement mark)

	Ordinary Least Squares			School Fixed Effects		
	yes	yes	yes	yes	yes	yes
Child characteristics						
Teacher characteristics						
Age	0.0095*** (6.08)	0.0094*** (6.05)	0.0084*** (5.30)	0.0118*** (5.73)	0.0108*** (5.58)	0.0117*** (5.67)
Male	-0.110*** (-5.27)	-0.112*** (-5.51)	-0.0913*** (-4.29)	-0.150*** (-4.79)	-0.136*** (-4.71)	-0.150*** (-4.77)
Qualification BA	-0.0057 (-0.24)	-0.0001 (-0.00)	-0.0095 (-0.39)	0.118*** (3.05)	0.0984*** (2.62)	0.120*** (3.08)
Qualification MA	-0.00016 (-0.01)	0.00383 (0.14)	-0.00654 (-0.24)	0.120*** (3.03)	0.115*** (2.98)	0.126*** (3.16)
First division	0.0279 (0.97)	0.0291 (1.02)	0.0229 (0.80)	0.151*** (3.78)	0.147*** (3.69)	0.153*** (3.84)
Para teacher	0.0968** (2.44)	0.0939** (2.38)	0.0614 (1.51)	0.233*** (4.53)	0.212*** (4.33)	0.231*** (4.47)
Governance variables						
Union member	-0.0589** (-2.21)		-0.0550** (-2.06)	-0.106** (-2.37)		-0.0904* (-1.95)
Politically connected		-0.238*** (-3.77)	-0.256*** (-4.03)		-0.142** (-1.99)	-0.101 (-1.36)
<i>N</i>	8185	8185	8185	8185	8185	8185
Adjusted R-square	0.25	0.25	0.25	0.27	0.27	0.27
Altonji's estimated bias	0.141	-0.128	---	0.988	0.198	---
Altonji's Ratio	---	1.85	---	---	---	---

Why should TU and PC reduce learning?

- Do TU / PC reduce teacher effort?
- We have several measures of effort
- Regressed each of these on TU & PC
 - Controls for teacher characteristics
 - School FE estimator
 - Not necessarily causal

**The association of 'union membership' and of 'political connectedness' with some teacher effort indicators
(Govt. Primary Schools, Uttar Pradesh): School Fixed Effects Estimates**

Dependent variable	Coeff on union member variable	Coeff on 'met or personally knows teacher MLC/MLA	Coeff on 'met or personally knows teacher MLC
Teacher's absence rate	-0.004 (-0.084)	0.075 (1.23)	0.161** (1.98)
% of T's school time given to teaching	-0.207 (-1.42)	-0.498*** (-2.62)	-0.373 (-1.45)
% of T's school time given to organising prayers/games	0.258* (1.86)	-0.391** (-2.20)	-0.478** (-1.96)
Number of days of non-teaching duties outside school	-2.609 (-0.80)	5.127 (1.22)	5.467 (1.05)
Cites 'social work' as an occupation other than teaching	0.077 (0.81)	0.212** (2.01)	0.452*** (3.02)
Has contested any election [^]	0.057 (0.8)	0.312*** (3.07)	0.286** (2.53)
Has filed a education related court case	-0.068 (-1.28)	-0.114** (-2.01)	-0.139* (-1.65)
Agrees that 'frequently absentee teachers should be paid less'	0.027 (0.21)	-0.139 (-0.92)	-0.591*** (-2.86)

Each regression controls for teacher age, gender, religion, education, and para vs. regular status.

- Coeff on TU and PC could be biased by T unobs characteristics
- Moreover, relative small sample (n=235)
- Results are suggestive

Conclusions

- Not the first time someone has looked at the role of T in school governance
- National Commission on Teachers (1984-86)
- Tried to make a contribution
- Mustered evidence

Conclusions

- T profoundly influenced school governance environment
- Influenced governance through their organisations
- Guaranteed representation has increased influence – one can hardly blame teachers/TUs for using that privilege
- TU mem'ship and pol. connections associated with lower ach.

- Negative assessment supported by available qualitative info
- National Commission on Teachers (1986) concluded “the most important factor responsible for vitiating the atmosphere in schools, we were told, has been the role of teacher politicians and teachers’ organisations.”
- Report levels the following three criticisms:
 - firstly there is too much *politicisation* in the T organisations;
 - secondly there has been too much *proliferation* of such organisations
 - thirdly teachers’ organisations have not paid enough attention to the intellectual and *professional development* of their members.
- Made the impassioned appeal: “we must draw attention ... to the need to promote actively parents’ organisations all over the country. At present there are hardly any organisations interested in providing good education to their children. We feel that such organisations are desperately needed to promote and safeguard the educational interests of their wards and to counteract the negative and unhealthy political preoccupations of some of the teachers and their organisations”. (NCT, 1986, p71).

- IIEP study (Khandelwal and Biswal, 2004) surveyed 225 teachers, 17 education administrators and 33 other respondents in UP
- Concludes - one of the “visible factors affecting the development of education” is “a highly politicized teaching force and the resulting low level of accountability”.
- Cites “Political and bureaucratic interventions” and “institutional barriers such as trade unions and teacher unions” as being among factors that are perceived by educational stakeholders to be the main causes of unethical practice in the education sector” in UP.

Policy points

- How might the governance environment be improved, to raise teacher accountability & effort ?
 1. Constitutional amendment
 - to do away with guaranteed representation
 - Led to culture of political activism, political interference
 2. Apex court recognize aided T as holding office of profit
 - Would depoliticize teachers
 3. Election Commission reduce % teachers in 'polling party'
 - from 50-67% to 25-33%
 - this gives teachers perceived influence over politicians
 4. Follow NCT's advice of 24 years ago – parents' orgs

PPPs in education

- Apart from attempting to improve matters within the govt. school sector, an alternative policy choice is to opt for private production of education with public money, a PPP
- PPP is not a panacea, irrespective of design
- RTE Act 2009 has chosen to set up a particular type of PPP

25% seats provision in RTE Act

- RTE Act smart in recognising that the one part of education sector that retains full accountability is private sector
- It seeks to co-opt that sector in a PPP
- Smart move –
 - will increase the number of disadvantaged children who get access to better quality education, and
 - reduce the cost of providing education.
- Studies of the relative effectiveness of private and public schools consistently show an advantage of private schools (Desai et al, 2008; Tooley & Dixon, 2005; Goyal & Pandey, 2009; French & Kingdon, 2010)

- Schools reimbursed on lower of the two:
 - per pupil expenditure in govt schools in the state
 - the private school's own fee level

- Private schools' ability to pay market clearing wages means they have dramatically lower PPE (taking out the elite schools)

- ROR to RMSA is 50% greater if we allow 50% of secondary expansion to occur via PPP

- Several issues not thought about:
 - To increase size / number of private schools
 - To raise fee rates
 - Increase government interference

- So the 25% provision is smart in that it harnesses the advantages of private sector:
 - its ability to get teachers to work,
 - its ability therefore to produce higher learning levels,
 - its ability to produce education at a sig. cheaper cost
- But still, the tax payer may not be getting the best value for money
- RTE Act bring in the biggest form of PPP in education, but why this particular way of giving public money to the private schools ?
- There are many diff potential ways of setting up a PPP. A particular form of PPP has been chosen without considering alternatives, or articulating/justifying why this form of PPP is better as against others
- Its an example of supply side funding of schools; its argued that demand side funding works better – vouchers. Issues of school choice and school competition not seriously considered