

Teacher Policy, Governance and Training Annex :Evidence & Examples



INTRODUCTION

This annex to the main paper *Teacher Policy, Governance and Training: Issues and Evidence to Support programming*, contains examples and links to reforms in the three areas of policy, governance and training.

There is no holy grail!

Research on what education strategies are associated with improved learning outcomes is mixed, and very frequently the evidence is not robust enough to be conclusive. A recent meta-analysis of studies conducted between 1990 and 2010 (Glewwe et al, 2011)¹ found a generally positive association between inputs and raised learning outcomes across a range of characteristics, but the effects were reduced to a few variables when only the highest quality studies were considered: these were the presence of school furniture, teacher knowledge and teacher presence. So when it comes to *what works?* - the answer is “we don’t really know” but there are some useful pointers towards strategies and interventions that are more likely to achieve success than others.

When looking at teacher characteristics that are linked to improved learning outcomes, the following emerges (Glewwe 2011):

- A teacher’s general level of education has some effect
- A teacher’s subject knowledge appears to have the greatest effect
- Whether a teacher is male or female does not seem to matter
- In-service training has some impact
- A teacher’s level of experience does not appear to make a difference
- Teachers with higher (degree) levels of teaching-specific education get better results

<http://faculty.apec.umn.edu/pglewwe/documents/Edinput7.pdf>

¹ The meta-analysis looked initially at over 9,000 studies, finding only 79 of sufficient quality to trust the findings, of which only 49 met standards of econometric methods. In addition it looked at 13 randomised control trials.

ON TEACHER POLICY

Establish career structures based on performance

1. In **Viet Nam**, the salary scale for teachers consisted of three steps (titles) with incremental steps within each step. Eligibility for a higher step would require meeting specification qualifications as well as a group of criteria defining “professional standards” for primary teachers.
 - World Bank (2009?), Teacher Motivation Incentives and Working Conditions, Teacher Development and Management Policy Brief 8, <http://siteresources.worldbank.org/INTSOUTHASIA/Resources/PolicyBrief8.pdf>.
 - World Bank, Vietnam: Helping Primary School Teachers Make the Grade, Results in Focus series, http://siteresources.worldbank.org/CFPEXT/Resources/299947-1274110249410/7075182-1364483849892/Vietnam_PrimarySchoolTeachers_Japan.pdf.

Improve pay and conditions

Contract versus civil servants

1. In four Central American countries (**El Salvador, Guatemala, Honduras, Nicaragua**), teachers were better motivated and performed better when they had a fixed- instead of open-ended contract tenure. Fair and accurate evaluations of teacher performance were required.
 - Di Gropello, E.(2006). A Comparative Analysis of School-Based Management in Central America. Washington, DC: World Bank. (Working Paper, 72.)
<https://openknowledge.worldbank.org/bitstream/handle/10986/6978/350360A0Compar1chool01OFFICIAL0USE1.pdf?sequence=1>.
2. In **Chad**, community contract teachers have better learning outcomes (as measured by PASEC) than civil service teachers for second grade students and similar results for fifth grade students. Community teachers are paid by parents, locally, which civil servant teachers might have to travel to another locality to receive their salary. Being paid by parents might also incentivise the teacher to attend school regularly since their pay might be docked.
 - Pôle de Dakar. (2009). Universal Primary Education in Africa: The Teacher Challenge. Dakar, Pôle de Dakar, UNESCO-BREDA. Universal Primary Education in Africa: The Teacher Challenge.

<http://www.uis.unesco.org/Library/Documents/universal-primary-education-africa-teacher-challenge-2009-en.pdf>.

Performance pay incentives to improve the quality of teaching show uneven results across countries.

3. In an experiment in **Andhra Pradesh, India**, teacher performance pay was linked to improved student performance. The main impact was derived from teachers being more effective in their classtime pedagogy.

→ Muralidharan and Sundararaman, 2011 (India),
<http://www.prgs.edu/content/dam/rand/www/external/labor/seminars/adp/pdfs/2011/muralidharan2.pdf>

4. A similar programme in **Kenya**, which also showed improvement in student scores, found that teachers were incentivised to give private test preparation sessions outside of school and therefore no real sustained gains in learning occurred in the classroom.

→ Glewwe, Ilias and Kremer (2010), Teacher Incentives, American Economics Journal: Applied Economics 2,
<http://www.povertyactionlab.org/publication/teacher-incentives>.

5. In **Pernambuco, Brazil**, a school-level teacher bonus programme has seen large increases in learning outcomes over the two years of the experiment. state-managed schools set annual targets to improve student test scores and pass rates: the size of the bonus was related to how close the school came to their target. Teachers could receive up to 1 or 2 months' salary.

→ Patrinos (2011), <http://blogs.worldbank.org/education/paying-teachers-to-perform-the-impact-of-bonus-pay-in-pernambuco-brazil>.

Provide incentives to place teachers in difficult areas

1. Some evidence suggests that recruiting and training local teachers helps increase job satisfaction, which in turn reduces attrition. Some incentives to hire locally include setting hiring quotas and waiving entry fees and/or requirements for training programmes on condition of working locally for a pre-determined period of time. Locally-recruited teachers are more likely to be familiar with the cultural and socio-economic context (although a direct link from this to improved quality of teaching is tenuous), have supportive family networks and higher level of commitment to developing education in the area. Incentives for hiring from outside the difficult areas include providing special bonus packages, bonus pay for placement (settlement packages), accelerated career advancement, eligibility for study leave and

better housing aim to attract teachers to underserved areas. Such measures are widely used in **sub-Saharan Africa**.

→ Bennell, P. and Akyeampong, K. (2007). Teacher Motivation in sub-Saharan Africa and South Asia. London, UK DfID, Central Research Department. (Educational Papers. Researching the Issues, 71.)

<http://r4d.dfid.gov.uk/PDF/Outputs/PolicyStrategy/ResearchingtheIssuesNo71.pdf>.

2. In **Lao PDR**, incentives set to hire ethnic minorities into teacher training programmes included adjusting entry requirements and financial support. Although numbers enrolled increased, problems included that students falsely attempted to appear to be from remote areas to gain admittance to the schools and language problems results in high dropout from training schools.

→ Benveniste, L., Marshall, J. and Santibañez, L. (2008). Teaching in Lao PDR. Washington, DC/Vientiane, World Bank and Ministry of Education.

http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/03/20/000333037_20080320003628/Rendered/PDF/429710ESW0LA0P10Box327342B01PUBLIC1.pdf.

3. In **Cambodia**, similar incentives set to hire ethnic minorities into teacher training programmes included adjusting entry requirements (e.g., waving grade 12 requirement) and scholarships to poor children and ethnic minorities, which would increase the number to eligible applicants. Although numbers enrolled increased, problems included that students falsely attempted to appear to be from remote areas to gain admittance to the schools and language problems results in high dropout from training schools.

→ Benveniste et al. (2008).

Improve recruitment and retention

1. In **Liberia**, the recruitment of teachers after the civil war was problematic due to an absence of trained teachers. Returnee refugees who taught in camps outside the country were deemed valuable by the Ministry of Education and their experience was deemed transferable, after consultation with the International Rescue Committee. Given that they were for the most part untrained teachers, an array of NGOs provided “emergency” training to recruit them as teachers. Yet, most teacher training curricula used did not offer modern, student-oriented learning methodologies. The process was not a long-term solution and added confusion to a poorly functioning teacher

training system. The Liberia Teacher Training Program, currently in its second phase (2010 – 2015) aims to fill these gaps.

- Triplehorn, C. (2002). *Leveraging Learning: Revitalizing Education in Post-Conflict Liberia: Review of the International Rescue Committee's Liberia Repatriation and Reintegration Education Program, 1998–2001*. New York, International Rescue Committee.
- Rodriguez et al. (2009), *Mid-term assessment of the Liberia teacher training Program*, Washington, DC: USAID.
http://pdf.usaid.gov/pdf_docs/PNADP441.pdf.
- Liberia Teacher Training Program II (webpage description),
<http://www.fhi360.org/projects/liberia-teacher-training-program-ii-ltpp-ii> and
<http://www.rti.org/page.cfm?obj=25E3E1D9-5056-B172-B80AD27BF50A0F9B>.

2. In **Kenya**, the Extra Teacher Program hired teachers locally with one-year contracts at one-fourth the salary of civil service teachers. The contract teachers were more likely to be present (teaching) than civil service teachers and their students scored higher on exams. Training school committees who supervised teachers made the programme more effective.

- Duflo, Dupas, and Kremer, (2010) *Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya*.
http://web.stanford.edu/~pdupas/Tracking_rev.pdf.

ON TEACHER GOVERNANCE/MANAGEMENT

Initiatives to tackle absenteeism, including “ghost” teachers (payroll cleaning)

1. In **Sierra Leone**, a computerised Records Management Improvement Programme was established in 2005 to computerise paper records of the central civil staff. Teacher payroll management began in 2010 after a period of alignment between records from central ministries and reality at the local level. One Innovation includes using hand-held devices to record teachers' information including photograph, fingerprints, and location.

1. Goldsmith, C. (2010). "Teacher's pay – making the pipe work": the role of improving teachers' payroll systems for education service delivery and state legitimacy in selected conflict-affected countries in Africa. Background paper for EFA Global Monitoring Report 2011.
<http://unesdoc.unesco.org/images/0019/001913/191353e.pdf>.

2. In **India**, a controlled experiment found that installing cameras in non-formal school classrooms and linking teacher presence (in hours) with pay reduced absenteeism to around 21% compared to 42% in control schools. Students were responsible for taking a photograph of teachers at the beginning and the end of schools days using a camera with a tamperproof time and date function. The cost was \$2.20 per day of teacher presence and test scores significantly improved.

→ Duflo et al. (2010), Incentives Work: Getting teachers to come to school, <http://economics.mit.edu/files/5995>.

3. In **India**, evidence suggests that teachers increase their presence in schools when there are more regular inspections.

→ Chaudhury, N., Hammer, J., Kremer, M., Muralidharan, K. and Halsey Rogers, F. (2006). Missing in action: teacher and health worker absence in developing countries. Journal of Economic Perspectives, Vol. 20, No. 1, pp. 91–116. <http://www.hks.harvard.edu/pepg/PDF/events/MPSPE/PEPG-05-14kremer.pdf>

4. In **Zambia**, where teacher absenteeism is often related to teachers' health problems (HIV/AIDS), strategies to improve their attendance records including improving their living conditions (e.g., access to treatment, provision of nutritional supplements) and access to financial resources (e.g. loans).

→ EFA Global Monitoring Report 2013, Paris: UNESCO.
<http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/efareport/reports/2013/>.

Localising teacher recruitment and deployment

1. In **Bhutan**, a range of programmes including classroom construction and improving teachers' deployment to rural areas has increased the supply of community primary schools, which has increased the attendance of girls.

→ Bhutan Ministry of Education (2009). A Study on Enrolment and Retention Strategies in Bhutan. Thimphu, Ministry of Education.
http://planipolis.iiep.unesco.org/upload/Bhutan/Bhutan_Enrolment_retention_strategies.pdf.

2. In **Gambia**, pay incentives for teachers in very remote schools increased deployment of newly qualified teachers to those schools. The basic salary was increased by 40%.

- Pôle de Dakar. (2009). Universal Primary Education in Africa: The Teacher Challenge. Dakar, Pôle de Dakar, UNESCO-BREDA. Universal Primary Education in Africa: The Teacher Challenge.
<http://www.uis.unesco.org/Library/Documents/universal-primary-education-africa-teacher-challenge-2009-en.pdf>.

Community involvement in teacher management

1. In El Salvador, parents were responsible for hiring, firing and paying staff. They also follow teachers' attendance and working hours, which resulted in increases in the time teachers spent on work.

- Di Gropello, E. (2006). A Comparative Analysis of School-Based Management in Central America. Washington, DC: World Bank. (Working Paper, 72.)
<https://openknowledge.worldbank.org/bitstream/handle/10986/6978/350360A0Compar1chool01OFFICIAL0USE1.pdf?sequence=1>.

2. In **India**, Village Education Committees were trained to identify and report on the quality of schools in their communities. While this effort had no impact on community involvement, teacher effort or student achievement, community members did increase their involvement in remedial learning, which improved learning.

- Banerjee et al., 2010 JPAL

3. In **Guatemala**, the nationwide expansion of primary school coverage in rural, indigenous and isolated communities was supported by the National Community-driven Program for Educational Development (PRONADE). One aspect of the programme aiming to increase progression and completion in primary school was that parents were responsible for hiring firing and paying teachers (COEDUCA). Teachers were trained in multigrade pedagogies and bilingual curricula were developed. Parent involvement contributed to holding teachers accountable for their work. (The institutionalisation of the project within the Ministry of education discontinued parents' ability to hire teachers.)

- EQUIP2 case study (2007): http://www.equip123.net/docs/e2-MeetingEFAGuatemalaCaseStudy_WP.pdf.

- World Bank (2009), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2009/08/20/000333037_20090820003829/Rendered/PDF/ICR4780P0486521C0disclosed081181091.pdf.

4. See also Bolivia in next section.

Working with teacher unions

1. In **Bolivia**, indigenous schools emerged as the result of protesting the conditions in public schools, in particular teacher absenteeism and the dominance of the Criollo (local-born white elite) culture. Indigenous communities developed their own schools, hired their own teachers and developed a curriculum for indigenous language teaching. Teachers unions, especially the Confederation of Rural Education Teachers (CONMERB), campaigned to ensure that indigenous rights were embedded in the new constitution (2009).

→ Gindin and Finger (2013),

http://scholar.harvard.edu/files/lesliefinger/files/unesco_paper.pdf.

2. In **Indonesia**, the teachers' union resisted the new performance appraisal system despite evidence in surveys that they would work harder with more monetary incentives. Poor work conditions and questionable methods for determining rewards were the basis for the opposition.

→ Gindin and Finger (2013),

http://scholar.harvard.edu/files/lesliefinger/files/unesco_paper.pdf

ON TEACHER TRAINING

The rapid expansion of enrolments in developing countries over the past twenty years has put enormous pressure on the ability to supply sufficient numbers of trained teachers. Teacher Training Institutions (TTIs) have often failed to keep up with demand. The result has been a substantial rise in the number of untrained teachers working in schools. Strategies to provide these teachers with basic training have varied, from gradually bringing them into TTIs, to providing alternative Open and Distance Learning (ODL) programmes to qualify them “on the job” whilst they remain in schools, or providing a range of often ad hoc in-service training programmes to boost their skills.

The need to address initial or pre-service teacher training

The evidence on the effect of initial, or pre-service teacher training is mixed. The quality of initial training matters if it to be effective. Evidence from developed countries show that pre-service training does make a difference.

→ Darling-Hammond, L and Post, L (2000) cited in DFID (2013)

<http://eppi.ioe.ac.uk/cms/LinkClick.aspx?fileticket=XHbLcl0hFq0%3D&tabid=3437>

The EdQual research across several developing countries found that higher student performance was associated with the number of total years of teacher training experienced by school staff.

→ EdQual working paper 11

<http://www.edqual.org/publications/workingpaper/edqualwp11.pdf>

However, other evidence shows that qualification and training do not exert significant influence on teacher performance, pointing perhaps to the importance of the quality of training.

1. **Sub Saharan Africa:** Research in nine Sub-Saharan African countries found that pupils with teachers who had had no initial training did not perform worse than those whose teachers has pre-service training.

→ Bernard et al in Edge et al (2002) “The role of teachers in improving learning in Burundi, Malawi, Senegal and Uganda: Great Expectations, little support” ILOPS Programme report on Teacher Quality.

2. In **Nigeria**, research findings (2008) in Nigeria found extremely low levels of teacher knowledge and ability when assessed in tests using curriculum content from primary Grade 6, the final year of primary. The level of qualification of teachers did not affect test scores: graduate teachers performed no better than the lesser qualified.

→ Education Sector Support programme in Nigeria (ESSPIN), An Assessment of the Development Needs of Teachers in Nigeria – Kwara State Case Study (Report No, Kw 301) <http://www.esspin.org/resources/report/52>

There has been a lack of investment in initial teacher training.

UNESCO (2014) found that less than half of the national education plans reviewed paid any significant attention to teacher education. The importance of building the skills of teacher educators has been largely ignored. In particular, TTIs failed to provide adequate preparation for teachers to be able to teach the wide range ability of children, to focus on the skills necessary to establish basic literacy and numeracy, and to ignore the actual realities of the classrooms, particularly in the skills required for multi-grade teaching.

→ UNESCO Global Monitoring Report 2013/14.

<http://unesdoc.unesco.org/images/0022/002256/225660e.pdf>

Multi-country research undertaken though the Multi-Site Teacher Education Research (MUSTER) project pointed to the need to look at alternative pathways into teaching accepting that scaling up traditional pre-service programmes was physically and financially not viable. It identifies a number of common constraints, including

outdated, academic curricula, little attention to teaching practice and under-investment in TTIs.

→ MUSTER Synthesis Report (2003) Researching Teacher Education: Perspectives on Practice, Performance and Policy

<http://r4d.dfid.gov.uk/PDF/Outputs/SkillsForDev/Educationalpaper49a.pdf>

Open and Distance Learning (ODL) approaches to teacher training

A number of countries have attempted to solve the crisis of untrained teachers through ODL approaches, providing initial training to serving unqualified teachers whilst they remain in their schools. A common feature of these programmes is the ability to reach large numbers of teachers and to do so at substantially lesser cost than full-time residential study in a TTI. Though a major advantage is that training takes place in situ, disadvantages include the difficulties in providing adequate supervision and mentoring of trainees, high levels of attrition often due to trainees being unable to manage the work/study balance

1. In **Ghana** - the Untrained Teacher Diploma in Basic Education (UTDBE) targets serving untrained teachers and reports costs at 20 times less than conventional pre-service, college-based training. There is little evidence to suggest that the quality of teachers trained in this way is lower than for those who graduate through full-time training at a TTI.

→ http://www.teachersforefa.unesco.org/v2/phocadownload/consolidatedcasesudies_anglophone.pdf

2. The **Malawi** Integrated In-service Teacher Education Programme (MIITEP) combined both TTI-based study with an extensive school-based, self-study ODL component. The two-year programme started with three months of college-based training followed by 20 months in schools, supported by regular zonal seminars and Headteacher supervision. Finally trainees did a final month back in college. The programme had mixed results, and suffered from a number of problems including the quality of college based study and failure to provide in-school support.

a. http://r4d.dfid.gov.uk/PDF/Outputs/SkillsForDev/Muster_mpd_11_11_02.pdf

Using ICT in teacher training

Increasingly, the use of ICTs is replacing conventional print media – China, Zimbabwe and Bangladesh provide three interesting examples. However, as the South African experience shows (UNESCO 2014) insufficient teachers have access to the internet. In addition, investment costs of equipment are high and beyond the means of most trainee teachers.

In China, Television has been used as a means to train large numbers of teachers at a fraction of the cost of conventional, in-college programmes. China's Television Teachers' College started in the 1990s and continues under the Open University of China. The approach achieved high pass rates (though there has been no rigorous evaluation) but requires a substantial investment of time – 20 hours of study per week - on the part of the trainees.

→ Yidan Wang (2000): The China Experience: Providing Teacher training through Educational Television. http://pdf.usaid.gov/pdf_docs/PNACH453.pdf

In Bangladesh the English in Action Programme is a current example of using ICT to improve teacher skills. Referred to as the “trainer in your pocket”, teachers are supported through both audio and visual materials held on a mobile device. All teachers also receive full package of print materials based on national curriculum. The programme replaces the need for the three year residential in-service training programme.

→ English in Action website <http://www.eiabd.com/eia/>

In Zimbabwe, distance approaches to train primary teachers to meet the teacher shortage have been in operation since 1983. Similar to the China experience, the original programme later became the University College of Distance Education and later part of the Zimbabwe Open University. A range of diploma, graduate and post-graduate courses are offered.

→ Teacher Development through Open and Distance Learning: the case for Zimbabwe, in International Journal on New Trends in Education and their Implications (2011) http://ijonte.org/FileUpload/ks63207/File/13._kangai.pdf

A comprehensive overview, including many specific country references to the use of Distance Education for Teacher training is provided in Mary Bruns' *Distance Education for Teacher Training: Modes, Models and Methods* (2011)

→ <http://www.teachersforefa.unesco.org/v2/index.php/en/ressources/file/198-distance-education-for-teacher-training-modes-models-and-methods>

In-service training and Continuous Professional Development (CPD)

There is some evidence that investing in the teachers' development beyond initial training can improve teachers' effectiveness and raise learning outcomes. As with initial teacher training, much depends on the quality of the programme. In most developing countries, there are rarely any systematic or coherent approaches to INSET or CPD. Whilst the continued upgrading of teachers' skills is widely recognised, it is rarely supported through funding. In contrast, many more developed education systems invest in CPD. In Shanghai (China) and Singapore teachers are entitled to substantial in-service training: 240 hours over 5 years in Shanghai and 100 hours a year in Singapore. The benefits are clear as Shanghai and Singapore are amongst the top performers in PISA.

As with initial teacher training, the effectiveness of programmes is very largely dependent on the quality of the programmes themselves: little, if anything, is gained through low quality training. The skills and the capability of the trainer are therefore important, as are the approach, and materials.

The literature on CPD is enormous, and in a paper of this nature only a very limited scan is possible. Much of literature is highly subjective in the form of reports on projects or programmes. Very little robust evaluation is available on CPD programmes.

Three basic models of CPD are referred to in the main paper and these are often used in combination:

- The “cascade” model
- The cluster model
- The school based or whole school

The cascade model

A popular mode of CPD is the “cascade” model. A major failing of the cascade approach is dilution: much emphasis and resource goes in at the top in developing materials and training master trainers, but success is dependent on weaker capacity further down. The model is essentially *transmissive* – with training events being largely didactic and prescriptive in nature. Its main value is an ability to convey a core central message.

South Africa - An evaluation of the cascade model of teacher training in South Africa found that though the model appears user-friendly, information is often misrepresented or lost, and trainees often felt unable to use skills or knowledge received. The conclusion was that it “*failed to significantly improve performance of educators*”.

→ Mpho M Dichaba and Matseliso L Mokhele (2012) Does the Cascade Model Work for Teacher Training? Analysis of Teachers' Experiences.

<http://www.equip123.net/docs/EQ1WorkingPaper1.pdf>

The state of **Madhya Pradesh** in India used a highly standardised, cascade teaching model to support a literacy reform – *Learn to Read*. The results, reported in McKinsey (2010, pp 52-56), showed marked improved test scores over a two year period, as a result of an intensive, high structured cascade approach.

→ http://www.mckinsey.com/client_service/social_sector/latest_thinking/worlds_most_improved_schools

The cluster approach

→ EQUIPs School- and Cluster- based Teacher professional Development: bringing Teacher Learning to the Schools (2004), though slightly dated, provides a useful summary of evidence on CPD, and presents the rationale as well as examples of both school and cluster-based CPD. It recognises the lack of empirical evidence that limits assessment of impact.

<http://www.equip123.net/docs/EQ1WorkingPaper1.pdf>

→ **Uganda** has developed a cluster-based approach to CPD under the Teacher Development and management System, centred around revitalised Primary Teacher Colleges, with a gradual move away from the cascade approach which was found ineffective.

http://pdf.usaid.gov/pdf_docs/PDACO346.pdf

School-based CPD

The situating of CPD within the context of the teacher's school and contextualising programmes within his or her daily reality is being widely adopted in many developing countries as viable and cost-effective model.

The Teacher Education in Sub-Saharan Africa (TESSA) seeks to explore and develop school-based modes of teacher education, based on an Open Education Resource bank of materials available to all. It operates in nine countries.

→ <http://www.tessafrica.net/home>