



Australian Government

Department of Foreign Affairs and Trade



Investing in teachers

Office of Development Effectiveness

December 2015

Office of Development Effectiveness

ODE builds stronger evidence for more effective aid. ODE monitors the performance of the Australian aid program, evaluates its impact and contributes to international evidence and debate about aid and development effectiveness.

Visit ODE at www.ode.dfat.gov.au

Independent Evaluation Committee

The IEC was established in mid-2012 to strengthen the independence and credibility of ODE's work. It provides independent expert evaluation advice to improve ODE's work in planning, commissioning, managing and delivering a high-quality evaluation program



Australian Government

Department of Foreign Affairs and Trade

Investing in teachers

Office of Development Effectiveness

December 2015

© Commonwealth of Australia 2015

ISBN 978 0 9944202 2 0

Published by the Department of Foreign Affairs and Trade, Canberra, 2015.

Disclaimer: The views contained in this report do not necessarily represent those of the Australian Government.

With the exception of the Commonwealth Coat of Arms and where otherwise noted all material presented in this document is provided under a Creative Commons Attribution 3.0 Australia (<http://creativecommons.org/licenses/by/3.0/au/>) licence. The details of the relevant licence conditions are available on the Creative Commons website (accessible using the links provided) as is the full legal code for the CC BY 3.0 AU licence (<http://creativecommons.org/licenses/by/3.0/au/legalcode>).

The document must be attributed as: *Investing in teachers*.

Cover image: Grade 11 teacher Annette teaches English at Norsup Secondary School, Malekula Island, Vanuatu. DFAT supports education projects on the Island. Photo: Connor Ashleigh for DFAT.

Foreword

Education is vital to development. And at around 20 per cent of the annual aid budget, it remains a high priority for Australian development assistance. Improved education leads to improved productivity, employment, living standards and economic growth. Educating women and girls gives them more control over their lives and their health, and provides a way out of poverty for their families.

The world has made remarkable progress in getting more children into school, but many countries are only now coming to terms with the policy, budgetary and human resource implications of expanding education opportunities. Improved access does not, on its own, lead to improved education outcomes, especially not in the poorest countries where education systems are over-burdened and under-resourced. In education, a greater focus on quality is now central, but how to achieve this within existing constraints is by no means clear.

Research shows that *investing in teachers* has strong potential to improve the learning outcomes of children in school. This suggests that teachers should be at the centre of plans to improve education quality.

This evaluation compares evidence from the literature with Australia's experience in supporting teacher development in a range of developing countries. It uses case studies to good effect in explaining choices made, the extent to which expectations were or were not met, and the lessons for future Australian assistance for teacher development.

The evaluation found mixed results. In cooperation with governments and other donors, Australia has made positive contributions, such as improving teacher frameworks and curriculums, and training teachers through a range of interventions. However, there is room to improve—for example, in enhancing policy, strengthening analysis and negotiating new investments—so teacher education and training will result in better teaching and learning in schools. A significant limitation, acknowledged in this evaluation report, is insufficient attention to measuring learning *outcomes*. Follow-on evaluations involving the Office of Development Effectiveness are expected to help fill this gap.

I commend this evaluation report and its recommendations to the Department of Foreign Affairs and Trade and its development partners.



Jim Adams

Acknowledgements

This evaluation—*Investing in teachers*—was conducted from June 2014 to September 2015 and managed by the Office of Development Effectiveness (ODE) at the Australian Government Department of Foreign Affairs and Trade (DFAT).

The Australian Centre for Educational Research (Adeola Capel, Hillary Hollingsworth, Elizabeth Kleinhenz, Alison Lonsdale, Yung Nietschke, Rachel Parker, Kate Reid, Jeaniene Spink and Mollie Tobin) and Farida Fleming (University of Queensland) undertook the initial research and data collection, including the literature review, document review and interviews.

Mary Fearnley-Sander (Education Consultant, Palladium) and Jacinta Overs (ODE) prepared this final evaluation report. Hannah Birdsey and Louise Ellerton (DFAT Education Section) provided technical support and were of great assistance to the evaluation team in engaging with DFAT education program managers. Other ODE staff, particularly Robert Brink, Sue Button and Melissa Kamp, supported the evaluation at various stages.

Dereck Rooker-Smith, Assistant Secretary ODE, provided valuable input and advice. DFAT's Independent Evaluation Committee (IEC) provided oversight to ensure independence, rigour and a quality process.

ODE thanks DFAT's education program managers and advisers, especially those working in case study countries, for their cooperation in sharing program documents, arranging interviews and responding to additional information requests.

Contents

Foreword	iii
Acknowledgements	iv
Abbreviations	vii
Executive summary	1
Management response	9
1. Introduction and overview	13
Purpose	14
Scope	14
Teacher development in Australian aid programming	16
Policy guidance on teacher quality	17
Evaluation questions, criteria, methods and limitations	20
Report structure	24
2. Pre-service qualification	25
Introduction	25
Evidence of effective policy and practice	25
The case: Vanuatu Education Support Program	31
Comparison with pre-service and in-service integration in Laos	34
Counterpoint: Alternatives to systemic teacher development	35
Conclusions: To what extent are DFAT investments consistent with conditions for success of teacher pre-service development?	37
3. Professional development of teacher cohorts	39
Introduction	39
Evidence of effective cohort professional development	41
The case: the Philippines Strengthening Implementation of Basic Education in Selected Provinces of the Visayas	44
Counterpoint: Effective professional development outside systems	49
Conclusions: To what extent are DFAT investments consistent with conditions for success of teacher professional development investments?	52

4. In service qualification	54
Introduction	54
Evidence of effective in-service qualification provision	55
Case 1: Lao PDR Education for All – Fast Track Initiative 2010–14	57
Case 2: Bangladesh Third Primary Education Development Program 2011–17	61
Conclusions: To what extent are DFAT investments consistent with conditions for success of teacher in-service qualification?	64
5. School-based professional development	66
Introduction	66
Evidence of effective school-based provision	67
The case: Pakistan Education Development Improvement Program	69
Comparison with other models	73
Conclusions: To what extent are DFAT investments consistent with conditions for success for school-based teacher development?	76
6. Summary of findings and implications	78
Introduction	78
Effective teacher development programming is an emergent process in Australian aid	78
Teacher development programs need to be embedded in education systems	79
Teacher development needs a sector-wide approach	80
Teacher development designs need more contextual precision	81
Teacher development programs need close monitoring	85
Appendices	87
Appendix 1: Teacher development investments as categorised for evaluation	87
Appendix 2: Additional detail on concepts	89
Appendix 3: Case study investments, outcomes and indicators	91
Appendix 4: Case study source documents	116
Appendix 5: List of interviews	120
References: Bibliography	123
References: End notes	127

Abbreviations

Abbreviation	Name in full
ARMM	Autonomous Region in Muslim Mindanao
BEAM	Basic Education Assistance for Mindanao
BEAM-ARMM	Basic Education Assistance for Mindanao in the Autonomous Region in Muslim Mindanao
BEQUAL	Basic Education Quality and Access in Laos
BESRA	Basic Education System Reform Agenda
BEST	Basic Education Sector Transformation
BRAC	Formerly Bangladesh Rural Advancement Committee. Now known internationally by acronym only.
CBE	Community-based education
DepED	Department of Education
DFAT	Department of Foreign Affairs and Trade
ECCE	Early Childhood Care and Education
EDIP	Education Development Improvement Program
GB-EDIP	Gilgit Baltistan Education Development Improvement Program
GPE	Global Partnership for Education
ICFP	Instituto Católico para Formação de Professores (Catholic Teachers' College, Baucau)
IEC	Independent Evaluation Committee
KEIP	Kiribati Education Improvement Program
KPK	Khyber Pakhtunkhwa
LABEP	Laos–Australia Basic Education Program
MAEPA	Malaysia Australia Education Program for Afghanistan
MDG	Millennium Development Goal
MESC	Ministry of Education, Sports and Culture
MoE	Ministry of Education
MoES	Ministry of Education and Sports

Abbreviation	Name in full
M&E	Monitoring and evaluation
NTDF	National Teacher Development Framework
ODE	Office of Development Effectiveness
OECD	Organisation for Economic Co-operation
PEDP 3	Third Primary Education Development Program
PNG	Papua New Guinea
PRIME	Philippines Muslim and Indigenous Peoples Education Program
ProDEP	Professional Development for Education Personnel
SABER	Systems Approach for Better Education Results
STRIVE	Strengthening Implementation of Basic Education in Selected Provinces of the Visayas
TEIs	Teacher education institutes (new name for teacher training centres in Laos)
TTC	Teacher Training College (former name for TEIs in Laos)
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
VEC	Village education committee
VERM	Vanuatu Education Road Map
VESP	Vanuatu Education Support Program
VITE	Vanuatu Institute of Teacher Education

Executive summary

Introduction

Australia's investments in teacher development have reflected global priorities and an evolving understanding of what is required to deliver quality education in developing countries. From the 1990s to 2010, the global education priority was access, aligned with the second Millennium Development Goal (MDG). As a result of global efforts, two-thirds more children were enrolled in primary school in 2012 than in 1999.¹ There was a consequent increase in the demand for teachers, with an additional 1.6 million required globally by 2015 to achieve 'education for all'.²

Since 2010, concern for education quality has gained prominence. The United Nations Educational Scientific and Cultural Organization (UNESCO) has estimated that 250 million children worldwide are not attaining basic literacy and numeracy skills from schooling.³ Strategies such as the World Bank's Learning for All⁴ have highlighted the link between quality schooling, a skilled workforce, employability and economic growth.

World Bank and other research indicate that 'teacher effectiveness is the most important school-based predictor of student learning'⁵, yet investing in teachers is not well-evidenced, especially in developing countries.⁶ There are no roadmaps for how best to invest in teachers to deal with the substantial challenges the education sector faces in developing countries in Asia and the Pacific. Some of these challenges are that:

- > education may not be a priority in national budgets and it can be difficult to argue the case for teacher development, especially when the benefits may take years to become evident
- > teacher salaries may already consume a large proportion of the education budget (for example, 90 per cent in Bangladesh, 87 per cent in Laos and 72 per cent in Vanuatu)
- > allocation of funding, teachers and principals to schools may be driven by political and opportunistic considerations rather than need (in particular, urban schools are easier to resource than remote rural schools, and they are more visible to large constituencies)
- > education policies, including curriculum requirements and expectations of teachers, may be evolving and have internal contradictions
- > governments may have little control or oversight of teacher education and training institutions
- > large numbers of untrained teachers may already be working in schools
- > education supervisors and principals may have no incentive to support teachers in obtaining formal qualifications, especially if this would remove them from classrooms while they are studying or receiving training
- > teacher absenteeism may be high due to inadequate incentives, poor management or lack of supervision
- > teaching may be difficult (especially if classes are over-sized), underpaid, undervalued and perceived as a low-status profession

- › teaching undergraduates may use their qualification as a pathway to other professions, especially if teachers' college is one of the few tertiary education options in a country (for example, Vanuatu).⁷

Investing in Teachers evaluates DFAT's experience responding to challenges such as these, with partner governments, other donors and implementing organisations who share Australia's interest in improving education quality through teacher development.

Findings and recommendations

This evaluation indicates that **greater focus on quality** is now central to Australia's education development efforts, with priorities and resources gradually shifting in this direction. The pace and scale of change varies widely according to country circumstances. Acknowledging this diversity, this report reflects DFAT's mixed experience in a range of contexts and suggests ways to make better use of scarce resources to improve education quality through teacher development.

Two questions about the performance of DFAT's teacher development investments were asked in this evaluation:

1. What are the conditions for success of teacher professional development investments, and how can lessons learned inform future programming?

This evaluation found that support for teacher development works best when negotiated within a government-owned and led education quality improvement agenda. Sustainable, scalable improvement is most feasible when policies and frameworks are in place for teacher management and development. Another critical requirement is to build the capacity of education ministry personnel at all levels to drive quality improvement, from central government policy reforms through to school-level incentives and capacity to meet new expectations.

Successful teacher development investments have clear and realistic objectives. They monitor expected intermediate changes in teacher knowledge and practices, as well as long-term changes in education quality and student learning in schools. High-quality investments respond to wider education reform contexts and openly acknowledge constraints. They also provide a pragmatic and logical case for the approach taken (that is, pre-service and/or in-service) and consider teacher development needs and opportunities in context.

This evaluation makes three recommendations to improve teacher development programming throughout the aid management cycle, as explained later in this section.

2. To what extent have Australian investments in the professional development of teachers contributed to improved outcomes?

This evaluation found almost no data on outcomes that could be attributed to DFAT's teacher development investments. It is therefore not possible to answer this question. As envisaged in the evaluation plan, DFAT intends to pursue this question through further evaluation of selected teacher development investments (subject to successful negotiation with relevant programs and partner government personnel).

The basis for the findings in response to these two questions is explained briefly here, and in more detail in Chapter 6.

Teacher development programming needs to account for all policy and resourcing frameworks relevant to effective teaching. To date, the international priority of access to education has been a major driver for DFAT's education priorities globally and at country level. This has been reinforced by partner government focus on national performance against the MDGs. While

this focus has seen millions more children in school, it has had the unintended effect of assimilating teacher improvement into access-enhancing strategies without sufficient attention paid to effective teaching and learning. This has affected the focus and coherence of DFAT's teacher development programming.

At policy level, DFAT has had some success in supporting improved national education policies where political will and capacity has allowed, for example language of instruction in Myanmar. Even where there has been tension between government and development partner preferences, multi-donor education working groups have been used to good effect to encourage reform (for example, in Bangladesh on the Each Child Learns pedagogy and in Laos on teacher recruitment). DFAT has strategically used non-state actors for service delivery, hoping to influence government to learn from effective private sector models (which may happen through BRAC* in the Philippines).

Frequently, however, policy dialogue has not come to grips with essential contradictions in partner countries' commitments to improving learning outcomes.[†] Focusing on access without sufficient attention to adequate teacher provision has delayed the inevitable need to find capacity (especially human and financial resources) and prepare and manage teachers for quality schooling. In many countries, teachers are not efficiently or equitably deployed, and systems lack enablers and incentives for principals to exercise leadership. Some of these deficiencies, as the *Supporting Teacher Development: Literature Review* points out, are related to fiscal problems.⁸ But not all are. Sometimes inefficiencies are behind the fiscal problem.

Teacher development to improve teaching and learning is an ambitious agenda requiring concentrated policy and programming.

Investments in teacher development will yield the best outcomes for dollars invested if they are sustainable and scalable. This requires realistic assessment of all policies, institutions, systems, stakeholders and levels of jurisdiction concerned with the quality and management of teachers. While one-off interventions outside of formal systems and institutions have delivered valuable benefits for particularly disadvantaged communities (for example, Afghanistan and Pakistan) they have not been sustainable or scalable.

While difficult in politically and fiscally-constrained settings, DFAT's efforts to support teacher preparation and development should go beyond a narrow focus on training inputs and outputs, and plan on building institutions and human resources. Programs in Bangladesh, Kiribati, Nepal, the Philippines and Vanuatu are more oriented towards system outcomes than training outputs.

DFAT has made modest efforts to plan for sustainable teacher development, for example including teacher quality indicators and strategies in national frameworks, scaling up through an institution, replicating programs at sub-national levels, and educating cohorts of teacher educators (including through Australia Awards, as for the *Instituto Católico para Formação de Professores* – in Timor-Leste). Most programs have acquired some influence over national systems, or succeeded in school-level innovations, as discussed in Chapter 3.

* Formerly Bangladesh Rural Advancement Committee. BRAC is an international development organisation.

[†] 'Learning outcomes' refers to benchmarked assessments of learning achievement against clearly articulated learning standards and relevant curricula. Learning outcomes may be assessed through standardised or non-standardised tests, observed changes in pupils' competence compared to expectations, or other measures appropriate to the context (DFAT, 2015, *Strategy for Australia's aid investments in education 2015–2020*, p. 6).

Between national and school-level systems, this evaluation identified a ‘missing middle’: a gap in programming for adequate subnational (or district) capacity to translate national teacher development improvements into changed practices and support as well as manage teachers in schools. This middle level is a potential channel for good school-level experiences to work their way upwards and influence national policy change where needed.

A promising solution is to recruit and train provincial and district officers, district supervisors and principals as educational professionals, and employ them to support, mentor and monitor teachers in improving education quality and pupils’ learning outcomes. In the Philippines, with Australian assistance, the government is developing educational job descriptions for sub-national officials dealing with schools, following earlier cooperation at the sub-national level in the Visayas. Australia is assisting the Government of Indonesia to train principals to better lead the educational performance of schools and teachers. In Bangladesh, Australia has supported a thorough scrutiny of all teacher training institutions and their capacity to deliver in-service training.

These findings lead to the first recommendation of this evaluation, which applies equally to all pre-service and in-service investments in teacher development:

Recommendation 1

DFAT should coordinate support for teacher development with government education policy reforms and system-wide improvements and avoid isolated, unsustainable investments. This will require senior DFAT development managers and education program staff to:

- i. understand political, economic and institutional interests—and conflicts of interest—in teacher recruitment, qualifications, deployment, performance management and the impact on children’s learning outcomes
- ii. maintain national policy discussion and cooperate with other donors on reforms, for example through sector working groups, policy forums and research on teacher development for improved student learning
- iii. clearly establish enabling policy commitments—especially strong teacher recruitment, qualifications, deployment and performance management—so support for teacher development will lead to changed teaching practices and improved student learning
- iv. identify realistic opportunities for teacher development to improve student learning while considering contextual constraints
- v. agree on mutual priorities, responsibilities and resources to meet these commitments.

This evaluation found that programs have been effective at adjusting implementation to the country context. However, there were some recurring problems of design, as outlined here and explained in more detail in Chapter 6.

Allocated timelines were often too short to achieve the ambitious aim of changing teachers' understanding of good practice and capacity to implement it autonomously. A teacher development intervention needs to be long enough for teachers to:

- > obtain knowledge and skills
- > be continuously employed teaching a cohort of students through a defined level of education (for example, early grades)
- > be observed or tested for the change in their knowledge and practices
- > have the learning outcomes of their pupils assessed.

Indicators of improvement need to be identified at the right level in theories of change* for teacher development programming. If programs are not long enough for teacher change to be implemented—say five years—then indicators are better confined to demonstrable improvement in teaching rather than learning outcomes.

Different teacher development problems need different types of teacher development:

- > *Pre-service qualification* is for developing professional foundations of teaching and subject knowledge.
- > *Professional development* does not provide a qualification, but may be useful to train teachers in new curriculum or pedagogical requirements; or address specific challenges of practice that prevail in a context, such as multi-grade teaching.
- > *In-service qualification* may be suitable in countries that have recruited large numbers of untrained teachers to meet expanded demand. It is a useful option if teachers are not able to attend teachers' college (for example, due to teaching commitments, or because they are too far away) but who need to acquire subject knowledge, understanding of child development and practical skills.
 - DFAT has possibly under-used this form of teacher development which has the potential to improve knowledge and practice more substantively than other professional development, due to the authority of an education ministry-endorsed agenda (as in Bangladesh).
- > *School-based professional development* (individually or in clusters) may work well if principals have the capacity to lead teacher improvement and are motivated to do so, and if high-quality support resources and materials are available.

Specific learning issues need specific teacher development solutions, for example:

- > *Low literacy and numeracy* produce the low-learning outcomes recorded for developing countries. Improving both requires focus on specific disciplinary knowledge and technical capacities of literacy and mathematics. Multi-grade teaching is another prevalent condition of developing contexts for which specific teaching knowledge and skills are required.
- > *Language of instruction*—teachers need strong knowledge of the language children speak and of the language of instruction, if different. If different, they also need to understand how to teach children a second language. Where the language of instruction is also a foreign language for them, teachers need opportunities and incentives to develop and maintain proficiency.

* A 'theory of change' explains how development activities are expected to lead to particular outcomes and impacts. DFAT also uses the term 'program logic' for the relationship between an aid investment and its expected outputs, outcomes and long-term impacts.

- > *Inclusion policies*—an objective of many Australian programs is to improve access to quality education for students with disabilities (Fiji, Kiribati, Laos, Nepal, Pakistan, Papua New Guinea, Samoa and Vanuatu), but appropriate pedagogies and teacher development requirements need to be specified to improve learning outcomes for these students.

While what is possible varies greatly from one country to the next, this evaluation identified several **desirable design features** of pre-service and in-service approaches to teacher development, as outlined here:

- > *Effective qualification-based teacher development initiatives need to be based on strengthening the whole institution and its interactions with government.* This means attention in programming to curriculum, lecturer knowledge, skills and professional/academic status, institutional management, quality assurance and accreditation, resourcing, and relationships with schools and provincial district officials. Where the sector is not ready for systemic improvement and/or resources are too limited for this approach, DFAT's assistance should encourage system-wide thinking and planning for the long term.
- > As part of institutional strengthening, new DFAT designs should *assist governments to integrate pre-service and in-service training systems*, because this is associated with better quality training. Teacher education institutes (TEIs) or teacher colleges are responsible for in-service and pre-service qualifications. This potentially provides a synergy between ministries and teacher training colleges. TEIs that link with schools through in-servicing can make pre-service training more credible and useful. Ministry links with TEIs give access to the educational capital in these institutions needed to support quality teaching and learning.
- > The evidence suggests that *effective professional development of teacher cohorts* needs to be:
 - guided by a teacher development framework specifying the knowledge and competencies teachers are expected to acquire
 - linked into teacher registration and/or certification promotional processes
 - quality assured
 - relevant to classroom teaching
 - reinforced in teacher performance management.
- > *After trained teachers, instructional leaders are the most important element in students' learning.* Effective teacher performance management relies on governments recruiting, training and deploying professional instructional leaders—that is, principals and head teachers skilled in organising the school around learning improvement (for example, routinely tracking students' progress through assessments, diagnosing problems and jointly deciding on solutions).

These findings lead to the second recommendation of this evaluation:

Recommendation 2

Considering the difficulty of designing effective, efficient and sustainable teacher development investments, DFAT education program managers should ensure:

- i. an analysis of the nature of students' learning performance that informs choice and type of teacher development investment
- ii. sufficient timeframes to realise expected changes—for example, five to 10 years *minimum* for a major national teacher development program
- iii. clear logic of the relationship between improved student outcomes and proposed teacher development and a strong case outlining that the approach suits the context
- iv. monitoring and evaluation (M&E) that is adequate and adequately resourced.

As noted earlier, this evaluation found **almost no data on student learning outcomes that could be attributed to DFAT's teacher development investments**. Investment documents showed about one-third of investments in the sample (10/27) had learning outcome-oriented indicators, but few evaluations, reviews or quality reports included data on these; and none had undergone the rigorous evaluation necessary to establish causality or attribute effects to DFAT investment.

While in some instances it was too early to report outcomes, in most cases data focused on accounting for inputs and outputs. Evidence of effect was collected most purposefully and systematically for programs based on community education or private initiatives (Afghanistan, Pakistan, the Philippines and Timor-Leste) that were delivered through national and international non-government organisations on a small scale, using specialised expertise and resources for in-depth M&E. Newer investments, including sector-wide efforts with other donors in Bangladesh, Laos and Nepal, seem to be planned with more attention to outcome-level indicators and data.

Absences of data were not explained. This may have been because data was not collected, too poor to use, too difficult to use, or otherwise unsuitable for official reporting. This is a serious weakness in DFAT's management of investments in teacher development. It may be related to pressure on human resources to manage programs and meet other reporting requirements.

Many programs consistently reported inadequacy of monitoring—particularly partner monitoring—of implementation. This may have undermined training quality (as in Laos or PNG), the likelihood of system learning, and incentives for sustaining change. Where monitoring and data collection seemed to be more integrated in designs (for example, Bangladesh, Kiribati and Vanuatu), it remains to be seen if it will be analysed and used as evidence of success or to signal the need for further changes (which may have political risks).

More programs should use program monitoring, assessment and evaluation to accumulate evidence of quality and impact, especially for high-cost, large-scale or innovative investments where knowledge for program learning and improvement is vital. Data collected for the Laos Education for All – Fast Track Initiative showed that intended learning outcomes were not achieved. This influenced more thoughtful design and more realistic timeframes and indicators in the subsequent investment in education quality in Laos.

Evidence of effect is also critical in advocacy for government take-up and scale-up of investments, and for government and agency accountability.

DFAT should track future teacher development evaluation reports and share findings with and through those working in the area (for example, through the internal Education Community of Practice). DFAT may also benefit from working with partners more experienced in assessing teacher effectiveness and with more capacity to effectively monitor and evaluate investments in teacher development.

This leads to the final recommendation of this evaluation:

Recommendation 3

DFAT should work systematically to improve its M&E of the outcomes of investments in teacher development.

- i. ODE and the Education Section in DFAT should support sector and program managers, as required, to improve data collection, analysis and reporting to the extent possible in each country context (noting varying levels of capacity, resources and willingness for M&E).
- ii. ODE and the Education Section should assist programs in identifying intermediate outcome indicators for teacher effectiveness related to the nature of the development investment and targeted issues in student learning.
- iii. Subject to country-level utility and feasibility, ODE and the Education Section should assist one or two programs to evaluate the effects of teacher development on teacher knowledge, teacher practice and student learning.

Management response

The evaluation was a thoroughly conducted review of Australia's portfolio of recent and current investments in teacher development. The evaluation report has been well informed by an extensive literature review including 27 teacher development investments from 17 country programs across the Indo-Pacific region. The Department of Foreign Affairs and Trade (DFAT) thanks the review team for their work.

DFAT welcomes the assessment of lessons from our portfolio of work, the findings of the evaluation and the recommendations, which align strongly with the *Strategy for Australia's aid investments in education 2015–2020*, endorsed by Foreign Minister Bishop in September 2015. DFAT looks forward to implementing the evaluation's three recommendations aimed at enhancing concept development, design and implementation of investments in teachers.

DFAT takes particular note of the evidence that teacher effectiveness is the most important school-based predictor of student learning. Given this, and in line with recommendations one and two, DFAT commits to champion teacher development as a core strategy to improve education quality. To do this successfully, DFAT Education Section in the Development Policy Division will support staff to raise the profile of teacher development when engaging in education policy discussions both internally and externally by drawing on internal expertise and existing strategic investments in the Australian Council for Educational Research's (ACER) Centre for Global Education Monitoring (GEM), the World Bank's Systems Approach for Better Education Results (SABER) and the Education Analytics Service (EAS).

DFAT notes that a key weakness identified in the evaluation was that there was almost no data on student learning outcomes that could be attributed to DFAT's teacher development investments.

DFAT strongly supports the importance of monitoring student learning and furthering the international evidence base on the influence teacher investments have on improving learning. As per the third recommendation and in line with the original evaluation plan, DFAT, with ODE commits to undertaking a multi-year study on teacher development investments in two countries to evaluate the effects of teacher development investments on teacher knowledge, teacher practice and student learning. More broadly, the Education Section will provide expertise, resources and advice to DFAT staff to improve monitoring of learning outcomes and teacher quality including through the release of a detailed Performance Assessment Note (PAN) in 2016.

DFAT's management response to the recommendations:

Recommendation	DFAT Response
<p>Recommendation 1:</p> <p>DFAT should coordinate support for teacher development with government education policy reforms and system-wide improvements and avoid isolated, unsustainable investments.</p> <p>This will require senior DFAT development managers and education program staff to:</p> <ul style="list-style-type: none"> i. understand political, economic and institutional interests—and conflicts of interest—in teacher recruitment, qualifications, deployment, performance management and the impact on children's learning outcomes ii. maintain national policy discussion and cooperate with other donors on reforms, for example through sector working groups, policy forums and research on teacher development for improved student learning iii. clearly establish enabling policy commitments—especially strong teacher recruitment, qualifications, deployment and performance management—so support for teacher development will lead to changed teaching practices and improved student learning iv. identify realistic opportunities for teacher development to improve student learning considering contextual constraints v. agree on mutual priorities, responsibilities and resources to meet these commitments. 	<p>Agree.</p> <p>This recommendation aligns with the 'Strategy for Australia's aid investments in education 2015–2020' endorsed by Foreign Minister Bishop in September 2015. The expectations outlined in the sub-recommendations align with three of the principles and approaches outlined in the strategy, namely that Australian aid to education will: be fit-for-purpose; take a systems-based approach; and engage in policy dialogue and reform for greatest leverage. Investment choices will be firmly grounded in the context and priorities of partner countries.</p>
<p>DFAT Action plan:</p> <p>Education programs will use research, evidence and analytical tools to inform context analysis and progress the teacher development policy agenda with partner countries and development partners. To enable this, the Education Section will provide technical support, resources (e.g. Centre for Global Education Monitoring, Education Analytics Service), and tools (e.g. Systems Approach for Better Education Results) to ensure views and analysis are evidence based.</p> <p>During investment planning and policy discussion, DFAT staff (both program and senior management) will pursue opportunities to champion teacher development as central to improving education quality. Education Section will monitor the extent to which this occurs across the portfolio of education investments.</p> <p>As appropriate, DFAT will avoid isolated investments; recognising that evidence and contextual analysis may indicate that well targeted, stand-alone investments are the best approach in some circumstances (e.g. fragile contexts, innovative pilots). In these cases DFAT program managers will ensure that there is clear evidence and justification to inform senior management decisions.</p> <p>The Education Section (with First Assistant Secretary, Development Policy Division and Assistant Secretary, Development Policy and Education Branch) will discuss with senior managers during pipeline planning, and mid-term reviews of aid investment plans, teacher quality as a key strategy (for both investment and policy advocacy) to improve education.</p>	

Recommendation	DFAT Response
<p>Recommendation 2:</p> <p>Considering the difficulty of designing effective, efficient and sustainable teacher development investments, DFAT education program managers should ensure:</p> <ul style="list-style-type: none"> i. an analysis of the nature of students' learning performance that informs choice and type of teacher development investment ii. sufficient timeframes to realise expected changes—for example, five to 10 years minimum for a major national teacher development program iii. clear logic of the relationship between improved student outcomes and proposed teacher development and a strong case outlining that the approach suits the context iv. M&E that is adequate and adequately resourced. 	<p>Agree.</p> <p>This recommendation aligns with the education strategy. Australian aid to education will be fit-for-purpose and prioritise the use of evidence for decision making. Australia recognises that achieving real change in learning outcomes for children will not be possible under a business-as-usual approach.</p>
<p>DFAT Action plan:</p> <p>Education program managers undertaking new education designs will include this ODE evaluation report as a key document within design team terms of reference.</p> <p>The Education Section will hold a briefing with all Education Category providers (within the AAS) on the recommendations of the evaluation and the implications for new designs.</p> <p>The Education Section will proactively provide technical advice and resources to support the implementation of the sub-recommendations in at least two (2) new teacher development investments.</p> <p>The Education Section (with First Assistant Secretary, Development Policy Division and Assistant Secretary, Development Policy and Education Branch) will discuss key strategies to improve teacher development and education quality (including timeframes and resourcing for monitoring and policy advocacy) with senior managers responsible for new and existing education sector investments.</p>	

Recommendation	DFAT Response
<p>Recommendation 3:</p> <p>DFAT should work systematically to improve its M&E of the outcomes of investments in teacher development.</p> <ul style="list-style-type: none"> i. ODE and the Education Section in DFAT should support sector and program managers, as required, to improve data collection, analysis and reporting to the extent possible in each country context (noting varying levels of capacity, resources and willingness for M&E). ii. ODE and the Education Section should assist programs in identifying intermediate outcome indicators for teacher effectiveness related to the nature of the development investment and targeted issues in student learning. iii. Subject to country-level utility and feasibility, ODE and the Education Section should assist one or two programs to evaluate the effects of teacher development on teacher knowledge, teacher practice and student learning. 	<p>Agree.</p> <p>This recommendation aligns with the education strategy. Australian aid to education will prioritise the use of evidence for decision making. Robust monitoring and evaluation systems are an essential part of every aid investment.</p>
<p>DFAT Action plan:</p> <p>The Education Section will proactively provide technical support and resources to improve data collection, analysis and reporting for two existing teacher development investments.</p> <p>The Education Section Performance Assessment Note (PAN) (already in development) will include examples of intermediate outcome indicators, learning indicators and evaluative questions that can be used to assess teacher development investments.</p> <p>The Education Section and ODE will work together to support a multi-year study on teacher development investments in Laos and Timor Leste to evaluate the effects of teacher development on teacher knowledge, teacher practice and student learning.</p>	

1. Introduction and overview

Introduction

In recent years, education has been a key sector for Australian development assistance. Almost one-quarter of Australian aid in 2014–15 was allocated to education. Australia's investments in education vary in scope and value but often cover multiple subsectors. If present, teacher development is typically a component of a broader suite of activities.

The 2013 ODE evaluability assessment estimated that teacher development* represented \$70 million in 2013–14 and approximately 10 per cent of education expenditure annually.⁹ The proportion of funding directed to teacher development varies greatly from investment to investment. For example, in Bangladesh just 9.8 per cent of education sector program expenses in 2014–15 were directed to teacher development, compared to almost half the education program in Timor-Leste.

Table 1 shows proportion of spending on teacher development where data was available.

Table 1: Proportion of spending on teacher development

Country	Investment	Time period	Total investment value (\$m)	Estimated spending on teacher development (\$m)	Percent of total investment value (%)
Vanuatu	Vanuatu Education Support Program	2012–17	37	4.8	13
Laos	Education for All – Fast Track Initiative	2010–15	23	5.5	24
Bangladesh	Support to Third Primary Education Development Program and United Nations Children's Fund (UNICEF) Technical Assistance	2011–17	53	5.3	10
Pakistan	Gilgit Baltistan Education Development Improvement Program	2010–15	12	2.4	20
Indonesia	Education Sector Support Program	2010–16	374	67.3	18
Timor-Leste	Timor-Leste Education Program	2012–16	23	11.0	48

Source: Education Section, DFAT. 2014–15 data is 'estimated outcome' as at 30 June 2015.

* Organisation for Economic Co-operation and Development Assistance Committee (OECD–DAC) codes and manual calculations were used to estimate the amount contributing directly to teacher training in investments identified as relevant to teacher development.

World Bank and other research suggest that ‘of all the factors under the control of a schooling system, teacher effectiveness is the most important predictor of student learning’.¹⁰ Australia has been part of an increasing global focus on improving learning outcomes from interventions in education, recognising the key role teachers play in those outcomes.¹¹

However, the relationship between *professional development* of teachers, teacher effectiveness and student outcomes is not well supported by evidence, particularly not in developing country contexts.¹² Program logics centred on teacher improvement are relatively new in education development, and program managers do not typically have ready access to tools and guidance for scoping and designing effective interventions.

DFAT commissioned this evaluation to analyse its experience with Australian aid for teacher development in Asia and the Pacific, compare it with international experience, and identify lessons to improve education sector programming with increased attention to teacher development. This evaluation informs DFAT:

- > senior executives responsible for deciding development assistance budgets and priorities
- > staff responsible for education programming
- > education policy staff.

Purpose

This evaluation is mainly formative* and assists DFAT to better manage ongoing investments and negotiate, design and monitor new investments in teacher development.

Scope

This evaluation examined 27 bilateral Australian aid investments in teacher development implemented during **2009–10 to 2014–15**, as listed in Table 2 (Appendix 1 for more details). These were identified in DFAT’s internal aid management system (AidWorks) and confirmed as relevant in consultation with program managers.

* Formative evaluation is intended to improve performance during implementation (*Glossary of Key Terms in Evaluation and Results Based Management*, OECD, 2010).

Table 2: Teacher development investments evaluated

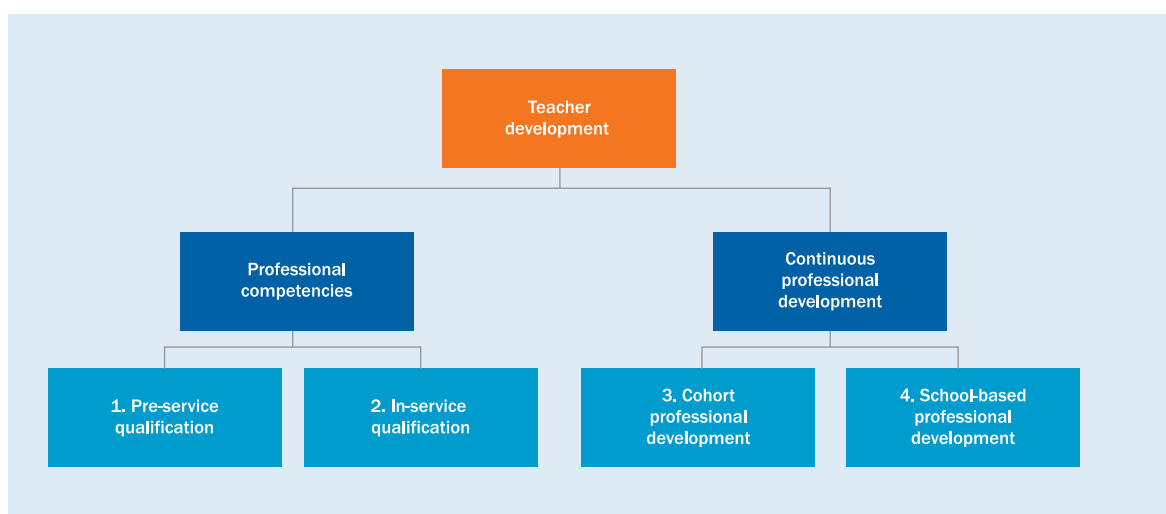
Country	Investment name	Duration
Pre-service qualifications		
Afghanistan	Malaysia Australia Education Project for Afghanistan	2009–14
Laos	Basic Education Quality and Access in Laos	2014–18
Pakistan	Early Childhood Care and Education in Khyber Pakhtunkhwa	2011–15
Papua New Guinea	PNG Education Program	2011–16
Philippines	Basic Education Sector Transformation	2010–19
Timor-Leste	Timor-Leste Education Program	2012–16
Vanuatu	Vanuatu Education Road Map and Vanuatu Education Support Program	2008–17
Professional development of teacher cohorts		
Afghanistan	CARE—Empowerment Through Education	2011–15
Kiribati	Kiribati Education Improvement Program phases I and II	2009–15
Nauru	Nauru Improved Education	2009–15
Pakistan	Pakistan Khyber Pakhtunkhwa Education Sector Program	2012–18
Pakistan	Education Sector Development Plan in Khyber Pakhtunkhwa	2011–15
Philippines	Strengthening Implementation of Basic Education in Selected Provinces of the Visayas	2004–11
Philippines	Strengthening Muslim and Indigenous Peoples Education	1999–2017
Philippines	Basic Education Assistance Mindanao – Autonomous Region of Muslim Mindanao	2006–14
Samoa	Samoa National Teacher Development Framework (Ministry of Education, Sports and Culture Strategic Policies and Plan 2006–2015)	2006–14
In-service qualifications		
Bangladesh	Support to Primary Education Development Program 3 and UNICEF Technical Assistance	2011–17
Laos	Education for All – Fast Track Initiative	2010–14
Nepal	Nepal School Sector Reform Program	2007–19
Tonga	Tonga Education Support Program (Phase 1 and Phase 2)	2010–16
School-based professional development		
Fiji	Access to Quality Education Program, Fiji	2011–17
Indonesia	Education Sector Support Program	2010–16
Indonesia	Papua Education Sector Development	2009–13
Myanmar	Myanmar Basic Education Portfolio	2012–17
Pakistan	Gilgit Baltistan Education Development and Improvement	2010–15
Sri Lanka	Transforming School Education Project	2011–17
Timor-Leste	Timor-Leste Education Program	2012–16

Teacher development in Australian aid programming

This evaluation considers Australia’s teacher development programming under four sub-categories to fit program designs and be consistent with the categories of teacher development used in developed and developing contexts.*

Figure 1 shows the typology of teacher development used for Australia’s aid programming and for this evaluation. It groups the four sub-categories under two broad functions—professional competencies and continuous professional development.

Figure 1: Typology of teacher development used for Australia’s aid programming



Australia’s assistance often includes several of these categories in a country program to meet multiple problems in a context. Conceptual boundaries are also blurred in implementation, especially the distinction between cohort-based and school-based professional development. UNICEF’s characteristic modality, for example, is to combine group development with follow-up mentoring visits to schools.¹³

Table 3 lists and defines the sub-categories used in this evaluation. Sometimes the differences in the categories are not apparent to program management. In many DFAT programs, for example, ‘in-service’ is used without differentiating between qualifications-linked training and professional development that does not lead to a teacher qualification. It is important to be clear on such differences, because they require different policy and institutional arrangements to optimise the quality and effectiveness of teacher development. Being clear also facilitates efficient and effective research into different approaches (for example, the strong and distinct literature on cohort and school-based professional development models).

* These include the OECD’s *Conceptual Framework for Teaching and Learning* (2013) and other approaches to conceptualising teacher development discussed in ODE’s *Supporting Teacher Development: Literature Review* (2015). The evaluation plan identified 14 models within the four broad categories of support. This evaluation dispensed with the models because they did not facilitate clear analysis, in particular due to unclear definitions and overlapping concepts.

Table 3: Teacher development sub-categories and definitions

Category	Definition	Explanation
Pre-service qualification	The education a candidate (who has never taught) receives to qualify as a teacher. ¹⁴	Acquisition of knowledge (disciplinary foundations of education, subject knowledge, pedagogical knowledge), skills (initial know-how for effective practice) and attitudes (the professional values of the teaching service).
Professional development of teacher cohorts	Training for working teachers in a particular cohort (for example, primary teachers or principals) which does not provide a teacher qualification.	Training to meet specific priorities—for example, to introduce a new curriculum to teachers, or target particular subjects or areas of practice. This focuses on a cohort. It may be off-site or online and organised at national, provincial, district or sub-district level.
In-service qualification	In-service training for working teachers to acquire a teacher qualification.	Practising teachers ‘upgrading’ their skills with a new qualification obtained while working. This approach is in countries that employ untrained teachers to cope with expanding student enrolment, or improve qualifications in line with new policy requirements—for example, elevation from a certificate level qualification to a diploma. ¹⁵
School-based professional development	Training for principals, mentors and/or working teachers in a particular school, or group of schools, which does not provide a teacher qualification.	This training targets—directly or indirectly—one or other aspect of the ‘effective practice’ domain. However, it is organised at school level and/or involves neighbouring schools working together in a cluster. It features mentoring of teachers in school by the principal, supervisors or trainers. It also features peer development activities.

Policy guidance on teacher quality

It is important to situate Australia’s teacher development contributions within relevant international and national policies. ‘Policies clarify the expectations of a system as well as its theory of action ... Any activity that takes place within the system does so within the boundaries set by the policy framework, which may promote certain types of activities and prevent others.’¹⁶

Australia has significant investments and partnerships in this area as well as in country program work. Australia invests, for example, in the World Bank’s Systems Approach for Better Education Results (SABER) program which provides guidance on the best attested policy in different domains, including teacher policy. Its analysis (Table 4) can be used to guide many approaches to teacher policy improvement internationally.¹⁷

Table 4: SABER teacher policy domains and related teacher policy questions

Effective teacher domain	Policy questions
Recruitment: <i>Attracting the best into teaching</i>	<ul style="list-style-type: none"> > Are entry requirements set up to attract talented candidates? > Are pay and benefits appealing for talented candidates? > Are working conditions appealing for talented candidates? > Are there attractive career opportunities?
Qualifications: <i>Preparing teachers with useful training and experience</i>	<ul style="list-style-type: none"> > Are there minimum standards for pre-service teaching training programs? > Are individuals required to have classroom experience to be allowed to teach? > Do teachers have a smooth transition from pre-service training into their first job?
Standards: <i>Setting clear expectations for teachers</i>	<ul style="list-style-type: none"> > Are there clear expectations for what students should know and learn? > Are there clear expectations for what teachers are supposed to do? > Do teachers have enough time to fulfil their duties?
Deployment: <i>Matching teachers' skills with students' needs</i>	<ul style="list-style-type: none"> > Are there incentives for teachers to work at hard-to-staff schools? > Are there incentives for teachers to teach critical shortage subjects?
Instructional leadership: <i>Leading teachers with strong principals</i>	<ul style="list-style-type: none"> > Are requirements to become a principal set up to attract talented candidates? > Do principals have incentives to perform well? > Can principals make key decisions to improve teaching?
Data: <i>Monitoring teaching and learning</i>	<ul style="list-style-type: none"> > Is there enough student achievement data to inform teaching? > Is there enough teacher performance data to inform teaching?
Professional development: <i>Supporting teachers to improve instruction</i>	<ul style="list-style-type: none"> > Is teacher performance data used to improve teaching? > Is there professional development to improve practice?
Performance incentives: <i>Motivating teachers to perform</i>	<ul style="list-style-type: none"> > Are there minimum mechanisms to hold teachers accountable? > Are there rewards for high-performing teachers? > Are there sanctions for low-performing teachers?

Source: World Bank, *SABER Teacher, Briefing Note (94448)*.*

* Accessed on 14 September 2015 from: http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2015/02/19/000477144_20150219152713/Rendered/PDF/944480BRI00PUB0achers0Briefing0Note.pdf

Australia supports an adapted version of SABER in the Pacific. The Pacific Assessment and Benchmarking for Educational Results program is being piloted in PNG, Samoa and the Solomon Islands. While policy priority on teacher development varies between countries, Pacific education leaders agree on the urgent need to address teacher development in the region and have called for this to be on the agenda of the Pacific Islands Forum Education Ministers' Meeting to be held in October 2016.¹⁸ This is an important development in regional policy formation.

DFAT's large investment in the Global Partnership for Education (GPE) endorses the partnership's strategic plan for development of teacher quality, which influences sector planning in all countries assisted by GPE funding.¹⁹

The categories of teacher development show the area's complexity. Policy development also derives from engagement with a ministry's governance of the area of teacher development. In large system, multi-donor contexts, coordination with other development partners and agencies around a sectoral plan is part of the policy environment.

Australia, with other donors, has successfully influenced teacher policy improvements through sector-wide approaches. For example, Bangladesh's Diploma in Education and Samoa's National Teacher Development Framework (NTDF) were negotiated through sector-wide approaches. But education working groups can be very effective without being part of formal sector-wide approaches. A small system, such as Kiribati, has instead developed an Education Partners in Development Forum, a platform for policy work with intra-governmental stakeholders which gives closer oversight of the quality of the investment than sector-wide approaches usually enable.

This evaluation included policy development when analysing teacher development programming, referring to the SABER policy domains that the case study investments addressed (where applicable).



A teacher helps students with an activity during class at Maamatoa Kindergarten in Vaololoa, Nuku'alofa, Tonga. Photo: Connor Ashleigh for DFAT.

Evaluation questions, criteria, methods and limitations

This section provides a short explanation of the questions, criteria and methods used for this evaluation. It also outlines limitations. Appendix 2 provides more detail on the conceptual framework.

Evaluation questions

This evaluation asked these two questions and contested these four propositions:

1. What are the conditions for success of teacher professional development investments, and how can lessons learned inform future programming?
 - a. Proposition 1: The Australian aid program supports teacher professional development using models that are responsive to the country and educational reform context.
 - b. Proposition 2: The Australian aid program supports teacher professional development using models that are drawn from an evidence base.
2. To what extent have Australian investments in the professional development of teachers contributed to improved outcomes?
 - a. Proposition 3: The Australian aid program supports teacher professional development using models that demonstrate positive outcomes.
 - b. Proposition 4: Monitoring and evaluation systems on Australian aid program supported teacher professional development interventions assist in understanding outcomes.

This evaluation mainly addresses the first question because of data limitations (see evaluative criteria immediately below) and because the evaluation plan includes separate studies for obtaining evidence of outcomes.

Evaluative criteria

Conditions of success extend far beyond technical best practice with teacher development. The suitability of an intervention for a need and context affects feasibility, take-up, sustainability and effectiveness for improving educational outcomes.

The conceptual framework (Figure 2A, Appendix 2) locates teacher quality within a spiral of influences working outwards from school environments, and educational and teacher policy to wider policy, governance and budget frameworks, and then even more so into economic, political, social and cultural contexts.

The effectiveness of teacher development investments is therefore *mainly judged in relation to the context* (propositions 1 and 2) and then on whether investment-level outcomes are achieved (propositions 3 and 4).

The criteria below guided this evaluation's analysis of case study lessons and outcomes:

1. Extent to which programs heeded **contextual and policy conditions** of success.
2. Extent to which designs and implementation heeded **evidence of effectiveness** (with effectiveness defined in line with literature review* findings on technically effective practice).
3. Evidence of teacher development **outcomes** compared to program intentions and expectations (Appendix 3 summarises outcomes and indicators for case study investments).
4. Degree to which the investment **M&E approach** was adequate or inadequate for understanding outcomes in teacher development.

* See *Supporting Teacher Development: Literature Review* (ODE, 2015): <http://dfat.gov.au/aid/how-we-measure-performance/ode/Documents/supporting-teacher-development-literature-review.pdf>

Methods

Data collection

This evaluation used three methods to collect initial data:

1. **A review of the literature** on teacher professional development internationally and in developing countries. This provided a benchmark for assessing Australian aid effectiveness (especially technical effectiveness). Almost 200 articles and reports from academic journals and grey literature (for example, government and international reports) were reviewed. The literature review was conducted by an external research team (the Australian Centre for Educational Research) and systematically considered the evidence of what works in teacher development. The literature review is available at <http://dfat.gov.au/aid/how-we-measure-performance/ode/Documents/supporting-teacher-development-literature-review.pdf>.
2. **A desk review** of approximately 400 DFAT documents from 33 Australian aid initiatives in 18 countries in Asia and the Pacific. These were used to assess the extent to which DFAT practice aligned with principles of good practice (established through the literature review) and identify and learn from cases in context. Additional documents were sourced from AidWorks and program managers to fill gaps. Appendix 4 lists the main documents consulted.
3. **Thirty six interviews** with 46 staff and knowledgeable stakeholders (some in small groups) from a purposeful sample of the aid initiatives, to learn from cases in context. Detailed notes were taken on each interview (200 pages in total). Appendix 5 lists the interviews conducted.

Specific evidence cited in this evaluation report is referenced in end notes, for ease of reference.

Data reduction

The initial 400 documents and notes from the 36 interviews were reduced by coding investments according to the four teacher development sub-categories in Table 3. A purposeful sample for in-depth case-study analysis of the data was then selected using the criteria listed in Box 1.

Box 1: Case study selection criteria

Main cases were selected using these criteria (listed in order of weighting):

- > Investment reflected one or more typical Australian aid contexts (that is, least developed or lower middle-income country; conflict or post conflict-affected; small island state).
- > Centrality of teacher development to the investment.
- > Significance of the bilateral relationship and Australia's role in education in-country.
- > Investment budget (\$15 million or more).
- > Implementation 'completed' (in AidWorks).
- > M&E data available.
- > Supplementary cases were selected to draw out lessons not illustrated in the major case studies and/or to highlight an issue evident in other countries or contexts.

Case study approach

Table 5 lists the major cases analysed in-depth. The cases illustrate the relevance of a technical approach or policy to its context, so that readers working in similar contexts may apply relevant lessons to their own work in education and teacher development.²⁰

Table 5: Case studies by teacher development category

Category	Initiative number	Initiative and activity name	Year	Budget (\$m)
Pre-service qualifications	INH937 and INK372	Vanuatu Education Road Map and Vanuatu Education Support Program/Vanuatu Institute of Teacher Education	2008–17	57
Cohort professional development	INF824	Philippines Strengthening Implementation of Basic Education in Selected Provinces of the Visayas	2008–14	20
In-service qualifications	INJ957 and INK663	Bangladesh Support to Third Primary Education Development Program and UNICEF Technical Assistance	2011–16	53
	INJ396	Laos Education for All – Fast Track Initiative	2010–14	23
School-based professional development	INJ061 and INK420	Pakistan Gilgit Baltistan Education Development and Improvement Program	2010–15	72

Other investments by category were examined to develop a more comprehensive profile of the category. Appendix 1 details these investments.

Table 6: Outline of case study analysis and general chapter structure

Question	Chapter section	Content
	Introduction	<ul style="list-style-type: none"> > chapter outline > concepts and definitions
What are the conditions for success of teacher professional development investments, and how can lessons learned inform future programming?	Evidence of effective policy and practice	<ul style="list-style-type: none"> > policy frameworks > features of effective practice (with reference to the literature review)
	Main case analysis	<ul style="list-style-type: none"> > country development and education context > investment description > lessons
	Contrasting cases	<ul style="list-style-type: none"> > comparison with approaches in other contexts > lessons
To what extent have Australian investments in the professional development of teachers contributed to improved outcomes?	Evidence of effect	<ul style="list-style-type: none"> > outcomes reported for main cases and supplementary cases (where data was available)
	Conclusions	<ul style="list-style-type: none"> > extent to which DFAT investments are consistent with conditions for success, and extent to which outcomes were or were not achieved > implications for future teacher development assistance

Table 6 outlines how the cases were analysed in response to the evaluation questions. It also provides a broad outline for the case study chapters, although the balance of analysis varies between cases according to the quantity and quality of data that was available.

Limitations

This evaluation involved a review of the literature, a desk study of DFAT program documents, and interviews with staff and stakeholders. It did not collect primary data or undertake field work. It used secondary data, including independent evaluations (available for half of the investments), quality at implementation reports and other program performance reports.

The interviews were semi-structured and conducted by telephone. All interviewees were invited to check the notes, but 12 did not do so.

The main weakness of this evaluation was that DFAT had almost no data on student learning outcomes* that could be attributed to teacher development investments. This is not surprising, and is consistent with the *Supporting Teacher Development: Literature Review* (ODE, 2015) which found teacher effectiveness and its impacts are acknowledged as being difficult to measure, especially in developing countries where multiple factors (besides teacher development) influence teacher effectiveness.²¹

Outcomes are discussed in this report where data was available, but this evaluation is skewed towards learning rather than evidence of effect. The difficulty of establishing a causal connection between student learning outcomes and particular teaching interventions is also widely acknowledged in educational research.²²

The evaluation is limited to bilateral teacher development investments. It did not consider the contribution of the following *regional and global programs* to teacher development in any depth, due to time and data limitations.

- > The University of the South Pacific School of Education provides pre-service and in-service teacher education, but this was not identified as relevant in preparatory analysis or design and is therefore not included in this report.
- > Statistical data reports a substantial number of Australia Awards alumni and Australian volunteers working in teacher development. Brief references are made to these groups, but in-depth analysis was not possible.
- > The GPE is Australia's largest multilateral partnership in education (\$340.8 million, 2007–14 and \$140 million, 2015–18). As a multi-stakeholder partnership comprising 60 developing countries, donor governments, international organisations, the private sector, teachers and non-government organisations, its goal is to provide quality basic education to all children. GPE's objectives include 'improving teacher effectiveness through training and recruitment'. Its grants to education in Asia and the Pacific include US\$56 million in Afghanistan, US\$120 million in Nepal, and US\$19 million in PNG.
 - This evaluation could not obtain data on teacher development outcomes attributed to Australia's contributions for several reasons. First, Australia provides core funding that is not linked to specific outputs or outcomes. Second, Australia is just one of many partners involved. Third, attribution to Australia (or other specific countries) is not possible from GPE global and country-level reports.

* 'Learning outcomes' refers to benchmarked assessments of learning achievement against clearly articulated learning standards and relevant curricula. Learning outcomes may be assessed through standardised or non-standardised tests, observed changes in pupils' competence compared to expectations, or other measures appropriate to the context (DFAT, 2015, *Strategy for Australia's aid investments in education 2015–2020*, p. 6).

- > Regional and global programs may be potential subjects for future teacher development research and evaluation.

Report structure

Following this introductory chapter, chapters 2 to 5 present these case studies:

- > **Chapter 2: pre-service qualification.** This chapter discusses the features of systemic and stand-alone investments for improving the quality of pre-service teacher training in a way that is integrated with the national in-service training and support system. The chapter then presents a case study on Vanuatu.
- > **Chapter 3: professional development of teacher cohorts.** This chapter explains the policy framework for three in-service teacher modalities. It also discusses systemic and alternative models of teacher professional development that do not provide a qualification. The chapter then presents a case study on the Philippines.
- > **Chapter 4: in-service qualification.** This chapter explains the features of DFAT's least-used approach to teacher development, which enables untrained or under-trained teachers to formally qualify for their role while working. The chapter then presents case studies on Bangladesh and Laos.
- > **Chapter 5: school-based professional development.** This chapter discusses the evolution of DFAT's school-based teacher development investments, within international and national agendas, for improving education quality through school improvement. The chapter then presents a case study on Pakistan.

Each case study discusses what constitutes 'good policy' and 'good practice' using the *Supporting Teacher Development: Literature Review* (ODE, 2015) and SABER teacher policy domains as benchmarks. The cases generally follow the outline in Table 6, with outcomes reported where possible.* Other interventions are discussed as a counterpoint to the main case. Each case study concludes with evaluative judgments in response to the two evaluation questions.

Chapter 6 summarises findings and implications for future education programming.

* There is no 'outcomes' section for the first case because it was too early to assess.

2. Pre-service qualification

Introduction

This chapter discusses the features of systemic and stand-alone investments for improving the quality of pre-service teacher training. It then presents a case study from Vanuatu.

Pre-service education is the teacher education needed to qualify as a teacher.²³ It is most commonly associated with ‘teaching competence’ in the conceptual framework of teacher quality (Figure 2A, Appendix 2) and enables teachers to acquire:

- > knowledge in the disciplinary foundations of education, subject knowledge and pedagogy
- > skills of initial know-how for effective practice
- > attitudes that embody the professional values of the teaching service.

Around one-third of Australia’s initiatives in teacher development involve pre-service education, covering six countries: Afghanistan, Laos, Pakistan, PNG, the Philippines and Timor-Leste. The significance of each initiative was shaped by the country education and development context and Australia’s policy engagement.

Two distinct approaches to pre-service development were evident—playing a systemic role in quality improvement in a country and improving pre-service *institutions* through stand-alone initiatives.

This case study chapter exemplifies the first kind of approach, focusing on the Vanuatu Education Support Program (VESP).²⁴ The discussion broadens by considering other instances of the systemic kind: the Basic Education Sector Transformation (BEST) program in the Philippines, and Basic Education Quality and Access in Laos (BEQUAL) and its antecedents.

Initiatives adopting the stand-alone approach are the Malaysia Australia Education Program for Afghanistan (MAEPA), ICFP in Timor-Leste, and the PNG Education Program.²⁵

Evidence of effective policy and practice

Policy frameworks

In general, the return on a pre-service investment depends on whether teacher management in a country is effective. This is because of the time between entry to the profession and entry to the classroom. Many intervening steps need to be regulated and monitored so new teachers can meet children’s needs. ODE’s *Supporting Teacher Development: Literature Review* indicates that most policy development for improving teacher quality occurs at the pre-service stage of teacher development.²⁶

The sections that follow describe DFAT investments in relation to relevant SABER teacher policy domains (Table 4, Chapter 1) for effective pre-service policy.

Recruitment: attracting the best into teaching

Effective teacher recruitment secures quality candidates while ensuring an affordable, representative and sustainable supply of teachers to meet national and local demand. This policy domain is distinctive to pre-service. Research has shown that quality of recruits is associated with better student achievements.²⁷

However, there is no universal standard for ‘best’ that can realistically be applied in all countries. Finland’s ‘gold standard’ of initial Masters level preparation is often cited as exemplary.²⁸ Pragmatically, the standard needs to be a trade-off between quality and what a country can support to create an academically eligible pool and, in the context of market forces, an affordable teaching force.

In some countries, large minority and/or disadvantaged populations are under-represented in higher levels of education. Women in conservative provinces of Afghanistan and Pakistan and girls in remote areas of Laos are unlikely to have superior academic backgrounds and qualifications.²⁹ ‘Best’ in these circumstances is a deliberate compromise. It includes candidate teachers from specific populations. A strategic reason for this, in Australia’s experience, is that teachers with connections to their community perform better and stay longer.³⁰

Recruiting from such populations may require dropping the level of academic eligibility to obtain candidates. However, the standard should not drop below the level required for teachers to master subject content, because their grasp of subject matter is one of the most influential variables on student learning.³¹

Qualifications: preparing teachers with useful training and experience

Where academic background requirements are lowered, additional support through and after pre-service training is necessary. The Laos – Australia Basic Education Program (LABEP) recruited ethnic teachers to serve remote communities disadvantaged in respect of Lao as the language of instruction. The BEQUAL program in Laos will take up that strategy again, but build on lessons from LABEP: particularly the importance of ongoing support for new teachers. This will involve skilling local supervisors (pedagogical advisors) and negotiating with central and provincial governments for recurrent funding for their mentoring in schools.

Teaching courses, with their lower entry requirements, are often a way for enrollees who do not intend to teach to get a tertiary qualification.³² This can lead to over enrolment, which can drain resources that should be invested in those who intend to teach. Teacher projection undertaken by ministries plays an important role in specifying quotas and class sizes for TEIs.³³ Quotas must be enforced, as TEIs can have counter-incentives to increase their revenue through private fee-paying enrolment. Laos exemplifies the struggle to get some TEIs to conform to regulation.

In small education systems, initial selection can be made jointly by the user (the ministry) and the service provider—a recommendation of Samoa’s NTDF.³⁴ That has the additional advantage of setting up joint ownership of and accountability for the quality of the trainee teacher. Research indicates that joint selection is practiced in high-performing systems.³⁵

Standards: setting clear expectations for teachers

Many countries have developed teacher standards (content and pedagogy), and this has been a successful area of investment for Australian aid to education in the Philippines through BEST. In the Philippines, the system for professional standards guides teachers more thoroughly because it aligns with the government’s basic education reforms. Teacher standards are specified for each teaching domain. They address the teaching challenges and competency expectations of a kindergarten to Year 12 teacher. For example, new language of instruction



Teacher at the school library, Vanuatu, 2011. Photo: DFAT.

policy requires primary teachers to be competent in the language of instruction, and junior high school teachers need to be competent in various areas of science teaching rather than in just one science discipline.

The value-add of BEST is that the pre-service curriculum is adjusted to new expectations, and supports a career progression that applies to both pre-service and in-service teachers. Through BEST, curriculum development is informed by research into what graduating students need in terms of content knowledge and pedagogical skills for different teaching domains through kindergarten to Year 12.

Deployment: matching teachers' skills with students' needs

Strong teacher supply and deployment policies have to be in place and working if an investment in pre-service qualification is to have an education quality return. Distortions in teacher deployment can result in untrained contract or volunteer teachers being used instead of graduates. Strong deployment policies include incentives or other levers to supply qualified teachers in hard-to-staff locations and enforcing limits on the numbers trained to avoid training in excess of workforce needs.

None of DFAT's teacher programs includes a policy position or strategy on teacher deployment—the most political and therefore hardest of all issues to influence in teacher management.³⁶

Inefficiency in teacher deployment can be greatly exacerbated by pre-service systems that graduate secondary school teachers with only one teaching major. Junior secondary and secondary schools are often required to have one teacher per subject. Teachers can therefore be under-loaded. For example, senior secondary teachers in Vanuatu teach only one subject.³⁷ This is also the practice in Indonesia and Laos. Changing pre-service requirements for teaching would pave the way for solving this issue.

Retention and attrition

With teacher retirement, illness and death, an education system can expect an attrition* rate of between 3 and 4 per cent per year.³⁸ The literature on teacher retention and attrition is limited to developed countries and Africa. Limited evidence from Ghana, South Africa and other countries suggests that attrition rates are greatest among teachers with higher academic qualifications (especially mathematics and science). High rates of attrition exist in schools in rural areas and other ‘least desired’ teaching locations.³⁹ This impacts disproportionately on teaching maths and science and on the most disadvantaged schools. It also results in teacher supply gaps and increased use of unqualified or inexperienced teachers in these areas.

Policy recommendations to reduce attrition and improve retention include better:

- > deployment policies
- > local recruitment
- > pay and working conditions (low remuneration, difficulty accessing pay in rural locations, excessive workloads and problems with classroom behaviour were among factors contributing to early teacher attrition in South Africa)⁴⁰
- > school-level management, including professional support and incentives for effective teacher performance.⁴¹

Features of quality pre-service teacher development practice[†]

The quality of training to prepare teachers to be competent professionals is what concerns most of DFAT’s pre-service programs. As with teachers, the quality of a pre-service institution is most systematically addressed by national standard setting and accreditation.

In the Philippines, standards for pre-service institutions cover:

- > staff qualifications and competencies
- > course quality, including practicum and partnership arrangements with schools
- > teaching and study loads
- > equipment resources and resourcing.

Quality assurance measures are an important policy lesson emphasised in ODE’s *Supporting Teacher Development: Literature Review*.⁴² The most rigorous form is accreditation of teacher education programs. This is when an external agency endorses that graduates are competent to enter the profession. A successful strategy for accreditation is exemplified in support through ICFP in Timor-Leste. The college is now affiliated with the Australian Catholic University, which means its qualifications meet the standards of the university.

The quality of curriculum is of highest relevance to quality of pre-service provision.⁴³ An international hallmark is a full integration of pre-service preparation with the school curriculum and classroom-relevant teaching practice.⁴⁴ In development contexts the most favoured strategy for ensuring relevance of training is expanding school experience—mentored class observations, practicums and internships. Australia’s new investments in pre-service provision (BEQUAL, Laos; VESP, Vanuatu) feature a strong curriculum emphasis on the practicum. But the funding implications of this benchmark need to be recognised. Teachers’ colleges and

* Teacher attrition means permanent loss of teachers from the teaching profession.

† This section provides an overview of DFAT’s pre-service teacher policy experience compared to the SABER teacher domain ‘Preparing teachers with useful training and experience’ and, where relevant, ODE’s *Supporting Teacher Development: Literature Review*.

institutes are chronically under-funded. They may therefore be reduced to providing marginal and ineffectual practicums because the costs—of partnerships with schools, lecturer visits and supervising teachers who actually supervise—are prohibitive. Curriculum transformation cannot take place without a commensurate investment in its value.

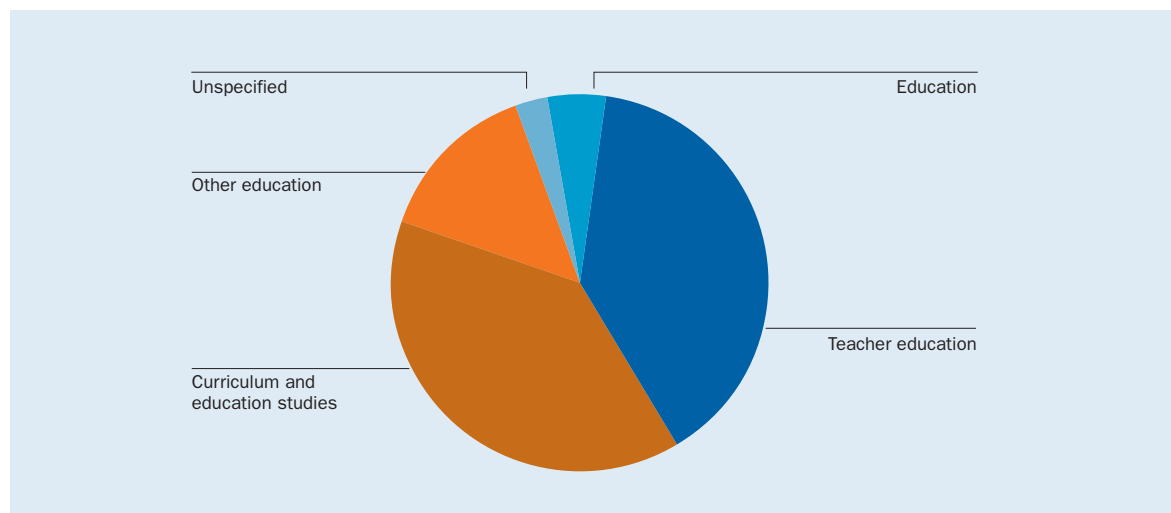
The development community's emphasis on improving learning outcomes is resulting in more recognition of the role that pre-service institutions can uniquely play in supporting learning. Subject expertise, technical understanding of learning, and assessment of the pedagogy for literacy and numeracy are—or can be—housed in pre-service institutions more adequately than elsewhere.

Two important Australian aid contributions to quality pre-service and in-service teacher development deserve a brief mention. Australia Awards and Australian Volunteers for International Development have been used by many countries to strengthen the teaching workforce directly and improve teacher development policies, systems and institutions.

Australia Awards

While generally not coordinated with country education policies or plans, Australia Awards for study at Australian universities have been used extensively to support pre-service and in-service qualifications. Since 2009, 255 scholars from partner countries have received 'teacher education' qualifications through Australia Awards scholarships. As shown in Figure 2, 39 per cent of education scholars from 2009 to 2014 undertook such a qualification. Most (68 per cent) undertook a Master's degree and 27 per cent a Bachelor's degree. The most common field of study has been English as a Second Language Teaching.

Figure 2: Scholarships by education subsector 2009–14



Source: DFAT, Scholarships Section, 2015

The largest cohort of teacher education scholars since 2009 (61 in total) is from Indonesia. In the Pacific, Australia Awards scholarships have provided an important alternative pathway for teacher education, with the largest numbers of scholarship awardees coming from PNG (44), Vanuatu (23), Kiribati (15), Tuvalu (10) and Samoa (10).*

* In commenting on the draft report, DFAT program managers in Apia advised they are trialling the use of some Australia Awards for prospective teachers from the National University (Faculty of Education, Science and Arts) to obtain qualifications in specialist areas such as science, maths and literacy.

Australian Volunteers in education and teacher training

From 2011–12 to 2014–15, a total of 878 volunteers worked in the education sector (13 per cent of all volunteers):

- > 463 (53 per cent) of education sector volunteers were hosted by educational institutions
- > 132 were teacher training volunteers.

The Solomon Islands and Indonesia received the greatest number of teacher training volunteers from 2011–12 to 2014–15 (28 and 26 respectively), followed by Kiribati (9).

Recognition is growing of the role pre-service institutions should play in professional development as well as initial training. Programs in Laos and Vanuatu are two examples of this. Greater integration of pre-service and in-service delivery presents challenges but also opportunities to maximise practice in the pre-service course and develop a network of supportive partnerships between lecturers and teachers.



Australian volunteer Ben Clare, himself blind, volunteering in Samoa to train teachers and students to read braille. 2010. Photo: Ben Clare, DFAT.

The case: Vanuatu Education Support Program

This case study illustrates pre-service developments that respond to Vanuatu's consensus to prioritise children's achievement of learning. It demonstrates innovative responses to disappointing progress on a reform agenda. It will be of interest to countries undergoing a similar, holistic renovation of curriculum and teacher quality, especially those gradually focusing on sector-wide programs and the underlying reasons for poor learning outcomes.

Country development context

Vanuatu is a least developed small island state, comprising 83 islands. It has an estimated 246 000 inhabitants and more than 100 languages are spoken in-country. Vanuatu is typical of many Pacific islands states in its development challenges—population dispersal, remoteness and multilingual diversity.

Vanuatu has two official languages, English and French, which is reflected in education provision. The education sector requires a coordinated vision. At the same time, the bilingual tradition has perhaps assisted in Vanuatu's early recognition of the importance of a language of instruction that children understand.

Table 7: Vanuatu education statistics

Number of students (primary and secondary)	63,025	
Net enrolment rate (primary)	86.3%	
Net enrolment rate (secondary)	22.6%	
Number of teachers (primary and secondary)	2,688	
Percentage of female teachers (primary and secondary)	51.0%	
Percentage of teachers certified (primary, government sector only)	62.3%	
Number of schools (primary and secondary)	521	
Percentage of children able to read at the fluency level needed to understand Grade 3 text	English	24%
	French	23%
Total public expenditure on education as % of total government expenditure	26.2%	
Total public expenditure on education as % of gross domestic product	6.6%	
Percentage of education budget spent on teachers' salaries	71.9%	

Data sources: Vanuatu National Statistics Office, Annual Statistical Digest, Ministry of Education and Training, 2014, pp. 7, 16–7, 23–4, 48 and 58; *Vanuatu Early Grade Reading Assessment Baseline Survey Anglophone Stream—Results Report*, 2010, p. 11; and *Vanuatu Early Grade Reading Assessment Baseline Survey Francophone Stream—Results Report*, 2010, p. 11.

Education reform

Vanuatu has an Education Sector Strategy 2007–2016⁴⁵ and an implementation plan, the Vanuatu Education Road Map (VERM).⁴⁶ From 2007, the Ministry of Education (MoE) has been concerned about very low literacy and numeracy results on the national standardised test of achievement (VANSTA).⁴⁷ This concern was reconfirmed by a 2010 World Bank Early Grades Reading Assessment showing that only 22 per cent of Grade 3 students were fluent readers. One-in-five students repeated a year in primary school. The net enrolment in secondary (years 7 to 13) was also extremely low, at 22.6 per cent.⁴⁸

Factors in Vanuatu's political economy impact on teacher quality. Even though there is an oversupply of teachers, more continue to be appointed due to political pressure.⁴⁹ A World Bank report highlighted inefficiencies in the government's management of teachers. Graduates were unemployed while an estimated 40 per cent of the 1862 primary school teachers in Vanuatu were uncertified and had below a Grade 12 education.⁵⁰

In response to poor results, the MoE in 2011 revised the literacy and numeracy curriculum for years 1 to 3 and proposed a comprehensive program of literacy improvement through the newly created In-Service Unit. A new Early Childhood Care and Education (ECCE) policy was also developed.

In 2012, Vanuatu also endorsed a national language policy which supported beginning education in a student's vernacular language, with a transition to English or French (the official languages of instruction). In 2014, the Curriculum Development Unit decided to provide early grade teaching and learning materials in Bislama—Vanuatu's national language—to reduce logistical difficulties and the costs of servicing many local languages or vernaculars. Additional training and support is reportedly available to teachers if they wish to teach in the vernacular.*

Australian support

Education is a priority for Australian aid to Vanuatu.⁵¹ The present VESP, developed out of VERM's sector-wide approach from 2010, involved the governments of Australia and New Zealand and UNICEF in a joint partnership. The sector-wide approach provided direct financing through Government of Vanuatu systems and relatively low levels of technical assistance. Slow progress on outputs and the need to more effectively address the root causes of low performance resulted in a redesign into the current VESP program in 2011 (Table 8).⁵² A managing contractor and extensive technical assistance were introduced.

Table 8: Vanuatu Education Support Program information

Initiative name	Vanuatu Education Support Program (INK372)
Time period	2012 to 2017
Implementation	Managing contractor (funded with New Zealand)
Status	Active
Location	Nation-wide, Vanuatu
Total value	\$37.5 m (13.2% spent on teacher development to 30 June 2015)

The long-term goal

VESP's long-term goal is to improve *education quality, provide more equitable access to education for all people, and manage the education system well*. The program is more targeted than was the earlier VERM. It has also prioritised access through school grants to provide fee-relief, and has introduced school-based management reforms to enhance the school grants scheme.

VESP focuses on improving learning outcomes in literacy and numeracy in ECCE and the first three years of primary education (Kindergarten to Year 3), recognising the foundational role these years play in learning.

* DFAT Vanuatu has reported that: 'Since 2015, activities and training are happening all through the country to support teachers who wish to use the vernacular language'. DFAT Vanuatu has advised that 15 per cent of schools in 2015 were using Bislama as the language of instruction in the early grades and 85 per cent one of the vernaculars.

The program's outcome relevant to its long-term goal and teacher development is to have *'literacy and numeracy levels of children in early years of education reach national standards'*.

Two key strategies are relevant to improving the system:

1. Train and support teachers to implement the new literacy and numeracy curriculum.
2. Develop capacity within the MoE to deliver an effective, well-managed and de-concentrated education system in Vanuatu.

Lessons from the Vanuatu Education Road Map

VESP's new direction builds on lessons from the VERM. Provincial trainers from VERM's In-service Training Unit mentored teachers in the field on the new literacy and numeracy curriculum. However, both curricular and language reforms needed better policy and institutional arrangements to be effective.

The training unit only had three staff to provide curriculum writing, training and mentoring, not enough to ensure teachers understood the new literacy and numeracy curriculum. The 2012 change in language policy required teachers to use children's mother tongue for instruction, **but** only around 18 per cent of pre-schools reported doing so at the time.⁵³ There was no mandated guidance or training.

Provincial offices received only 0.01 per cent of the MoE budget, two-thirds of which was used for overhead running costs. As a result, provincial education officers, school improvement officers, zone curriculum advisers and school principals received little training.

Meanwhile the pre-service Vanuatu Institute of Teacher Education (VITE) was underworked and under-used for teacher development to meet the reforms, even though it had played a key role in revising the curriculum. VITE was institutionally disconnected from the development of teachers' capacities to carry out the reforms.

VESP successfully aligned teacher qualification needs and government capacity for teacher education by making the VITE a central player in teacher in-servicing.

Under VESP, an upgraded professional development department was established in VITE, replacing the poorly-resourced in-service unit from the earlier VERM. This set up the institute for credible *pre-service* delivery and paved the way for it to provide leadership on all matters relating to teacher professional quality. It has created a partnership between education administrators and the teacher training institution to collaborate across teacher development.

Equipping VITE for its expanded role started from a low base. In common with many other pre-service institutions in partner countries, issues included:

- > low qualification levels in lecturing staff
- > no experience in primary teaching in most lecturing staff
- > very little professional development opportunity to develop and sustain leadership in teacher development.

The practicum is still marginal in the pre-service curriculum. Significant institutional inefficiencies need to be addressed. One systemic issue is that the institution does not base its intake on workforce projections. More primary school teachers are being trained by VITE than are likely to be needed over the next 10 years. At the same time, there is a significant drop-out rate from VITE (more than 20 per cent). A proportion of students still enrol, not to become teachers but to get a tertiary qualification in a country with few tertiary education options.

In response, VESP reforms have adopted a holistic approach, incorporating:

- > Identified standards for qualified teachers, teacher educators and for VITE, as required for institutional accreditation.
- > An overarching policy framework for teacher training, linking pre-service and ongoing professional development.
- > Improved pedagogical skills of VITE lecturers to train for real-world classrooms, with competency in new early years' school curriculum and informed by analyses from student assessments.
- > Qualifications upgrade and professional development opportunities for VITE lecturers, informed by research on learning issues in context (mother tongue, assessment, multi-grade) enabling the institute to take the professional lead on teaching and learning issues.
- > Support to strengthen VITE's institutional leadership and management for long-term sustainability.

VESP will respond to DFAT's assessment that VERM did not use the extensive investment in school grants for learning improvement at school level. It plans to match its pre-service investment with mechanisms for lecturer participation in the training of provincial trainers, principals and school cluster teams.

Comparison with pre-service and in-service integration in Laos

Basic Education Quality and Access in Laos (BEQUAL) is another example of a new type of design around teacher support. BEQUAL takes the integration between the pre-service institution and teacher quality even further. It assists the MoE to coordinate the work of all institutional and jurisdictional players that should influence the training of pre-service graduates. This includes the Department of Teacher Education, the Department of Pre-primary and Primary Education, the eight government TEIs, and the Research Institute of Educational Science (which develops school curriculum).

This work will also increase coherence between training conducted during pre-service and in-service. The practicum will be used to create professional development opportunities for teachers, principals and pedagogical advisors in the relevant schools. This will work to establish strong links between TEIs and provincial and local education services.

Counterpoint: Alternatives to systemic teacher development

In many environments, leveraging all teacher development systems is not possible, for example due to the nature of the bilateral relationship, policy or resource limitations, or implementation constraints. An alternative is to develop stand-alone pre-service institutions, which DFAT has supported in Afghanistan, PNG and Timor-Leste, as discussed below.

Afghanistan: Malaysia Australia Education Project for Afghanistan

One notable example of an institution-focused (rather than systemic) approach is Afghanistan's MAEPA which developed teacher trainers for its pre-service support. Under the project, 179 master teacher trainers covering all regions underwent 14 weeks of intensive development at the Malaysian Institute of Teacher Training in Kuala Lumpur. Teacher trainers also received eight months of follow-up training and practice supported by Malaysian mentors, a Teacher Training Adviser and Teacher Education Directorate field mentors. These master trainers then on-trained 931 teacher trainers from Afghanistan's 34 colleges for four weeks and supervised them in a two-week practicum.⁵⁴

This program design met several key needs for Australia's donor role in 2009. An immediate need was to rapidly develop pre-service competence from Afghanistan's very low base. The system was struggling after years of disruption, and having to deal with parents' surge of interest in education for their children. Through a cascade modality, and with gradual expansion through three phases, MAEPA disseminated more than 1000 trainers throughout Afghanistan. This gave Australia visibility and policy access to MoE officials at senior levels.

The choice of Malaysia as a Muslim country in which to conduct master training created trust and exposed the cohort to modern Muslim lifestyles and gender relationships. Improving women's leadership opportunities in education institutions was one MAEPA objective. Together with government policy changes and other development initiatives, MAEPA has influenced a change in attitudes towards women's potential as teacher trainers and teachers.

One of the Master Teacher Trainers who was deputy director of a teacher training college ... was saying that when he went to MAEPA, there were 18 women in his teacher training college and then, three years later, there were 200. When we said what had made the difference, he said, "I changed so much that I just couldn't believe that I hadn't been particularly interested in girls' education before I went." When he came back he was so determined to change things around. Because he was a Mullah, he was able to go out and he went to villages and towns all around his province and he's talked to parents and teachers and all sorts of people and said, "Let me have your daughters and let me train them to be teachers" ... That's one example where it really was the change in the gender breakdown in his college [that] was directly related to the realizations that he had and then his determination to change things.

MAEPA, Interview 2, Program staff

In the last phase of the project, Australia sought to improve the possibility of sustained change to pre-service lecturer capacity through pre-service curriculum reforms, materials development and institutional planning and leadership building.⁵⁵

Papua New Guinea Education Program

Budget support for the national Department of Education (DepED) under the Papua New Guinea (PNG) Education Program (2011–16)* prioritised funding for several projects led by the Teacher Education Division. These included pre-service teacher development, support for cluster-based, in-service teacher training, and resources for all teacher training colleges. In 2015, the program started supporting scholarships at Sacred Heart Teachers College (Bomana) and Enga Teachers College.

* This assistance is documented in the PNG Education Delivery Strategy and the Education Schedules to the Papua New Guinea – Australia Partnership for Development.



Students at Caritas Technical Secondary School, East Boroko, PNG. Photo: Ness Kerton for DFAT.

The education delivery strategy provides flexible and responsive support to DepED for shared outcomes agreed in the Papua New Guinea – Australia Partnership for Development. Two outcomes relate to teachers:

- > decreased maximum class sizes (45 students in elementary, primary and lower secondary schools, and 35 in upper secondary schools)
- > improved performance by students completing Grade 8 and Grade 12.

There have been problems with quality of training in the in-service component, including curriculum uncertainty, inadequate communication between central authorities and college educators, and no system to monitor training outcomes.⁵⁶

Australia continues to see a need in PNG for well-qualified teachers, particularly to achieve the enrolment increase specified in PNG's 2012 Tuition Fee-Free policy. The program is therefore considering working more directly with teacher training institutions, to increase quality oversight at provincial level.

The theory is that by working directly with the teacher training colleges, we will circumvent these types of problems and be able to affect more directly the output of the teacher training colleges, which are teachers.

PNG Education Program, Interview 1, DFAT staff

Timor Leste: Instituto Católico para Formação de Professores

A final example of institutional support is Timor-Leste's ICFP program. Each year, ICFP produces 50 to 60 graduate teachers, who are gradually placed in schools with follow-up monitoring by ICFP.⁵⁷ ICFP strategically uses Australian development scholarships for 10 teacher trainers to complete a Master of Education at the Australian Catholic University.⁵⁸

Australia's support to basic education in Timor-Leste does not at present aspire to influence the whole sector. Without being systemic, continuing support to ICFP—which includes core funding for student teachers' living allowances, teaching materials and student support services—is usefully contributing to quality teacher development in-country. The institution now has a critical mass of good lecturing staff training teachers, and ongoing institutional quality is underwritten by its institutional alignment with an Australian university.

Conclusions: To what extent are DFAT investments consistent with conditions for success of teacher pre-service development?

This question has two dimensions. The first is the extent to which investments suit the context. The second is their conformity with good policy and practice in pre-service.

Context

All programs discussed in this chapter took their cue from context when deciding on modes of aid delivery that responded to environmental strengths and constraints.

- > VESP modified an original design and delivery mechanism to focus on the new technical and skill capabilities stakeholders required, arising from significant primary education reforms.
- > BEST's pre-service component is integrated into a reform process well mapped out in previous programming in the Philippines.
- > BEQUAL revived a solution for providing quality teachers for disadvantaged areas which is highly regarded by government and addressing lessons from earlier teacher development experience (especially the need for adequate preparation and ongoing support to teachers).
- > Stand-alone institutional investments in Afghanistan, PNG and Timor-Leste were deliberate responses to particular development environments and Australia's role in them.

Among these, the imperatives of a fragile post-conflict environment stand out for their influence on investments. With MAEPA, the need for a government to win the trust of its people through education resulted in a model not usually recognised as effective: a train-the-trainer approach with master trainer expertise built through expensive training in another country. The rationale was the need for rapid and nation-wide difference to pre-service capacity. The reach of the cascade model makes this possible.

This case illustrates the difficulty of reconciling technically sound policy and practice with contextual suitability. The Afghanistan experience suggests that while contextual feasibility was the main driver of the pre-service design in the first instance, it was gradually buttressed by features known to be technically important for results, take-up and sustainability.

Conformity with good policy and practice

Where programs have the opportunity to be systemic, the technical conditions of success for pre-service are those supporting *relevant* pre-service training to improve learning results for children. VESP is sensitive to all influences required to place quality pre-service graduates into the classroom. This includes:



Education: Happy children in a primary school in Lao PDR. Photo: GPE/Stephan Bachenheimer.

- > developing pre-service provision within a teacher management framework and teacher standards
- > aligning curriculum with school curriculum priorities
- > strengthening the partnership between the MoE and VITE to better integrate pre-service and in-service support, and influence better recruitment and deployment policies and regulations.

All systemic programs considered in this chapter conform to good practice in their actions to integrate pre-service skills acquisition with classroom needs. In placing pre-service within the framework of teacher development, highly systematised pre-service programs are positioning the pre-service sector to play an expanded role in initial and ongoing teacher training.

It may be tempting to deal directly with pre-service institutions to avoid navigating complex or difficult education systems. But all investments should consider that the wider education system creates the teaching environment and delivers new teachers to it. Dealing only with institutions limits the potential for teacher development to improve the quality of teaching and learning in schools. Particularly with issues relating to recruitment, deployment and quality of school leadership, Australia's pre-service programming needs to be active in policy development for teacher management and support.

Best practice is about implementation as much as it is about design. One challenge of pre-service investment is ensuring it improves classroom learning. It was not possible to evaluate to what extent Australia's support for good-practice solutions resulted in better learning outcomes for students of teachers supported through improved pre-service systems and institutions.

No investment discussed in this chapter had documented changes in teacher knowledge, attitudes or teaching practices that can be attributed to Australian assistance.

3. Professional development of teacher cohorts

This chapter explains the policy framework for three in-service teacher modalities. It also discusses systemic and alternative models of teacher professional development that do not provide a qualification. The chapter then presents a case study on the Philippines.

Introduction

Training working teachers after qualification is usually referred to as ‘professional development’. It targets ‘teaching practices’ in the conceptual framework for teacher quality (Figure 2A, Appendix 2). Professional development can be taught off-site or online and at national, provincial, district or sub-district levels.

Sometimes in implementation the boundaries are blurred between a cohort-based professional development model (the subject of this chapter) and a school-based model (Chapter 5). UNICEF, for example, tends to combine group development with follow-up mentoring visits to schools. The distinction is important because of strong research findings on the different effects of different models.⁵⁹

Professional development of teacher cohorts is DFAT’s most common form of teacher development investment. This has mainly serviced these three needs:

- > curriculum reform with consequent up-skilling requirements
- > training to address issues of low student performance, such as reading methodology or multi-grade teaching
- > training on Australia’s education policy priorities, such as inclusive or disability training.

The case study in this chapter is the training component of the Philippines Strengthening Implementation of Basic Education in Selected Provinces of the Visayas (STRIVE) program. It was selected because it illustrates a framework for **integrating professional development within system planning** across education, from the centre to the school. Programs in the Pacific (Kiribati, Samoa and Vanuatu) and in Nepal⁶⁰ also use professional development frameworks.

Most large-scale professional development activity in developing countries is funded by donors because few developing countries can afford to upskill their teachers. This presents opportunities and risks with the relevance of such training. Relevance acknowledged by systems and perceived by teachers is essential for the full value of teacher professional development investments to be realised.

ODE’s *Supporting Teacher Development: Literature Review* indicates that a condition of effective professional development is its integration into the overall provision for teacher development.⁶¹ This may entail compliance with the quality assurance requirements of, and certification by, an accrediting body, such as in the Philippines. *Trainer quality* is the most critical requirement, whether or not the training is mandatory or formally accredited.



Dinesh Raj Sedhain teaches subjects, such as human biology and English, at Shree Dharmasthali Lower Secondary School, Pokhara, Nepal. Photo: Jim Holmes for DFAT.

Teachers on the ground assess their own training relevance, including with officially recognised training. Training that helps to operationalise a new curriculum or new performance standards has a *prima facie* chance of being integrated into teachers' practice. However a necessary condition for take-up is the degree to which teachers can implement the training into their work. This depends on factors such as feasibility within working hours, class sizes, and cognitive grasp of better practice. Teachers may see models of best practice as desirable and ideal but not practical in their daily work.

DFAT's aid investment portfolio includes exemplars of teacher professional development that are outside government systems and, in some respects, challenge them. These three are discussed in the second part of this chapter:

1. Afghanistan's CARE Empowerment through Education Program (2011–15), which provides community-based education (CBE) in Kapisa, Khost, Ghazni, Paktia and Parwan provinces.
2. Pakistan's Save the Children ECCE in Khyber Pakhtunkhwa Province (2011–15), which supports gender-sensitive education and increased focus on early childhood care and development and young children's transition into school.
3. The Philippines' Basic Education Assistance for Mindanao in the Autonomous Region in Muslim Mindanao (BEAM-ARMM), which establishes community learning centres in poor and conflict-affected communities without government schools.

Collectively these exemplify what is known as the **alternative delivery model**. They occur in, and are justified by, situations where there is no government provision. They are significant for two reasons. The first is their reported success with outcomes. The second is whether the effectiveness they demonstrate is scalable or sustainable by government systems, and whether they might model potential system change.

Evidence of effective cohort professional development

Policy frameworks

The major requirements for effective cohort professional development are that it be useful and relevant to classroom teaching, and conducted within an overall teacher development framework specifying the knowledge and competencies teachers are expected to acquire. As noted in this chapter's introduction, to ensure high-quality training, professional development should be quality assured. Training providers should be accredited. They should have systems in place to test teachers' knowledge and competence following professional development, and to certify what new competencies teachers have attained.⁶²

Qualifications: Preparing teachers with useful training and experience

There is consensus in the education research literature on what effective professional development delivered to a cohort of teachers should be like.* The *Supporting Teacher Development: Literature Review* (ODE, 2015, pp. 45–47) cites some commonly referenced statements about this. Effective professional development must end up in classroom implementation and be characterised by:

- > content focus
- > opportunities for active learning
- > post-training modelling in a school or cluster
- > follow-up and feedback on participants' teaching—in schools
- > collaborative examination of student work.⁶³

Follow-up is critical. Content learned in settings disconnected from the classroom is hard to implement and the school environment may not support the teacher returning from training unless school take-up is integrated into the training system.⁶⁴

Standards: setting clear expectations for teachers about student learning and teaching practice

One policy area that most influences professional development is teacher standards, which tell teachers what is expected of them and what 'good teaching' behaviours look like.⁶⁵ Teacher standards make it possible to organise a performance assessment system. This is important because performance appraisal is an incentive for teachers. Standards-based appraisal enables principals and educational authorities to identify performance that professional development can improve. This facilitates efficient allocation of resources to meet needs across student learning requirements.

Features of quality cohort professional development practice

This section provides an overview of DFAT's professional development policy experience that supplements the SABER teacher domain 'Preparing teachers with useful training and experience', as well as ODE's *Supporting Teacher Development: Literature Review*. DFAT's professional development approaches include many good policy and practice features. This is the most common type of DFAT teacher development assistance, and so the department has developed a repository of practical knowledge about what is useful, including the topics outlined here.

* See, for example, the summary of Hawley and Valli's (1999), 'Design principles of high-quality professional learning for teachers' in the *Supporting Teacher Development: Literature Review* (ODE, 2015, p. 46).

Training integrated with system priorities

Large systemic purposes, such as curriculum change, can motivate education leaders, administrators, principals and teachers to accept and support training and learning. This enables mandated change to be successfully adopted (Kiribati Education Improvement Program—KEIP).

Training as a school-owned and school-led process of change

Mass train-the-trainer programs are often criticised for diluted and de-contextualised messages and classroom disconnect (BEQUAL in Laos; VESP in Vanuatu). Effective professional development uses decentralised mechanisms, which include post-training modelling sessions in the school or school cluster, and is consistent with the quality of initial training.

Online training needs to be supported at school level if learning is to be effective and sustainable. Participants in professional development for improving teaching should include principals and local education officers, especially supervisors, so new practices can be technically supported at school level. Besides helping teachers translate training into practice, this is an opportunity for all school staff to benefit. It also facilitates whole-school change in line with targeted reform.

Collaborative development of content focus

DFAT has many examples of collaboratively developing appropriate content, including with:

- > teachers, curriculum officers and advanced skills teachers (Nauru Improved Education Program; Fiji Access to Quality Education)
- > representatives of Disabled People's Organisations (KEIP; Samoa Education Sector Program)
- > leaders of indigenous communities (Philippines Strengthening Muslim and Indigenous Peoples Education)
- > local community leaders (Pakistan Education Development Improvement Program—EDIP).⁶⁶

Adequate materials and teacher guides

Training materials and teacher guides must be available to teachers while they are being trained (Pakistan's EDIP) and in a form usable for trying out in classrooms.

Supporting and embedding change

Classroom implementation of what was learned in training needs to be systematically monitored and evaluated through teacher observation (Afghanistan, Empowerment through Education). DFAT program managers have most commonly attributed their disappointment with teacher investment outcomes to insufficient monitoring and classroom follow-up by education officials (Laos, Pakistan and Samoa).

Training needs to be progressive. Teachers need ongoing training to develop a deep enough understanding to transform how they teach; for example, to change pedagogy from rote to outcomes-based approaches. This is well supported by research⁶⁷ and confirmed by DFAT's experience.

The [second] thing that I did like ... is the cycle of training. It might not be new to others but I think for us at that time it was new. Many programs have one-off training of trainers etc., which is less effective, in my view. I think it's important that the training is done in cycles and over the life of the project or the program.

Philippines STRIVE Interview 1, DFAT staff



Rukmini Bhattarai is a Grade 1 teacher at the Shree Sahara Bal Primary School, Pokhara, Nepal.
Photo: Jim Holmes for DFAT.

The need for time to embed changed practices was echoed in interviews with program staff and government partners in Bangladesh, Fiji and Indonesia, with each system seeking to fundamentally change how teachers teach.

The paradigm shift takes a long time. You cannot expect a good outcome immediately. We have completed only one cohort. I think the attitude of students when we measure is quite positive. It is difficult for teachers to implement the new methods when they return to their schools due to shyness and not believing some of what is taught in the Diploma course. But I believe once there are two or three teachers who are Diploma graduates, the total environment will change.

Bangladesh UNICEF Technical Assistance to Third Primary Education Development Program (PEDP 3), Interview 3, Program staff

The case: the Philippines Strengthening Implementation of Basic Education in Selected Provinces of the Visayas

Country development context

When STRIVE began in 2004, the Philippines was characterised by slow economic growth and wide wealth disparities. The performance of basic education was low. The country was not on track to meet the MDG for universal primary education, with less than two-thirds of the age cohort completing primary education and a large difference in completion rates between the poorest and the highest income quintile. Regional disparities were particularly marked. The poverty incidence in Autonomous Region of Muslim Mindanao (ARMM) exceeded 50 per cent. Ongoing conflict, the second longest running in the world, took its toll in dysfunctional governance and delivery of basic services in a state of crisis.⁶⁸ Key education statistics in the Philippines are in Table 9.

Table 9: Philippines key education statistics

Number of students (primary and secondary)	21,042,250
Net enrolment rate (primary)	92.49%
Net enrolment rate (secondary)	62.86%
Number of teachers (primary and secondary)	637,558
Percentage of female teachers by school level (elementary)	88.5%
Percentage of female teachers by school level (secondary)	75.0%
Number of schools (primary and secondary)	46,624
Percentage of Grade 6 students achieving the national target for Filipino	39.63%
Percentage of Grade 6 students achieving the national target for mathematics	51.74%
Total public expenditure on education as % of total government expenditure	13.2%
Total public expenditure on education as % of gross national product	2.7%

Data sources: Enhanced Basic Education Information System, Philippines DepEd, 2015; National Education Testing and Research Center, Philippines DepEd, <http://deped.gov.ph/>, accessed August 2015; and p. 385, 2015 EFA Global Monitoring Report, UNESCO, Paris, 2015.

Education reform situation

In 2006, the Philippines Government introduced the Basic Education System Reform Agenda (BESRA) as a major push to achieve its Education for All objectives by 2015.⁶⁹ Improved planning and resourcing of schools, an overhaul of subnational education governance, and increased community engagement were important strategies to ensure quality education in the face of communication, compliance and capacity issues down the subnational chain.*

The reforms included a focus on improving teacher performance in classrooms, driven by effective DepED deployment and management of teachers. DepED was expected to use competency-based standards for determining teacher development needs, managing teacher performance and hiring and promoting teachers.⁷⁰ The implications for teacher capacity were extensive.

* In the Philippines context, DFAT Manila has referred to this as *deconcentration*—lower-level DepED offices were given additional functions, powers or responsibilities previously held at higher levels of DepED. DFAT notes that this is different to *decentralisation*, in which subnational government units are given full autonomy and control over their functions, and are only subject to national government oversight.

Australian support

Australia's then country strategy for the Philippines supported strategic, system-wide improvements in policy development and piloted initiatives for potential scale-up.

Since BESRA's key thrust included schools and teachers, Australia committed to making these priorities for its assistance to the Philippines Government through STRIVE (2011–14). By mutual agreement, STRIVE became a strategic avenue for Australia to support BESRA's successful implementation. It supported BESRA by strengthening key systems and serving as a platform for other donors and education leaders, managers and administrators to guide investments in DepED reforms.⁷¹

At the time, both governments were also aware of empirical evidence showing:

- › weak capacity of teaching
- › limited access to quality teaching materials
- › inadequate training of teachers and education managers.

STRIVE helped to address these issues.

During the initiative, education was the largest share of Australia's assistance at 45 per cent of official development assistance to the Philippines, but a small proportion of total financing for education.

Table 10: Strengthening Implementation of Visayas Education information

Initiative name	Strengthening Implementation of Visayas Education (INF824)
Time period	2004 to 2011
Implementation modality	Managing contractor with embedded technical assistance
Status	Complete
Location	Selected provinces of the Visaya Islands, Philippines
Total value	\$23.5 million

The initiative

STRIVE was designed to address the poor performance of students in the core subjects of English, science and mathematics in selected regions, divisions and schools in the Visayas.⁷² In 2007, components began that supported school-based management and the development of these three systems:

1. regional unified information system
2. learning resources management and development system
3. in-service training and development system.

An extension phase, directed towards sustainability of project outputs, began in August 2010 and concluded at the end of April 2011.

This case study is mainly concerned with in-service education and training *that does not lead to a formal qualification* (consistent with the evaluation definitions in Table 3, Chapter 1). However, the school-based management reforms and development of the other two systems are integral to the training system. They simultaneously support teachers through school environments that focus on and track learning outcomes, and through ready access to online teaching resources.

The objective of the in-service education and training component was the *development of a regional training and development system for quality professional development of teachers and educational leaders*. Its key outputs were:

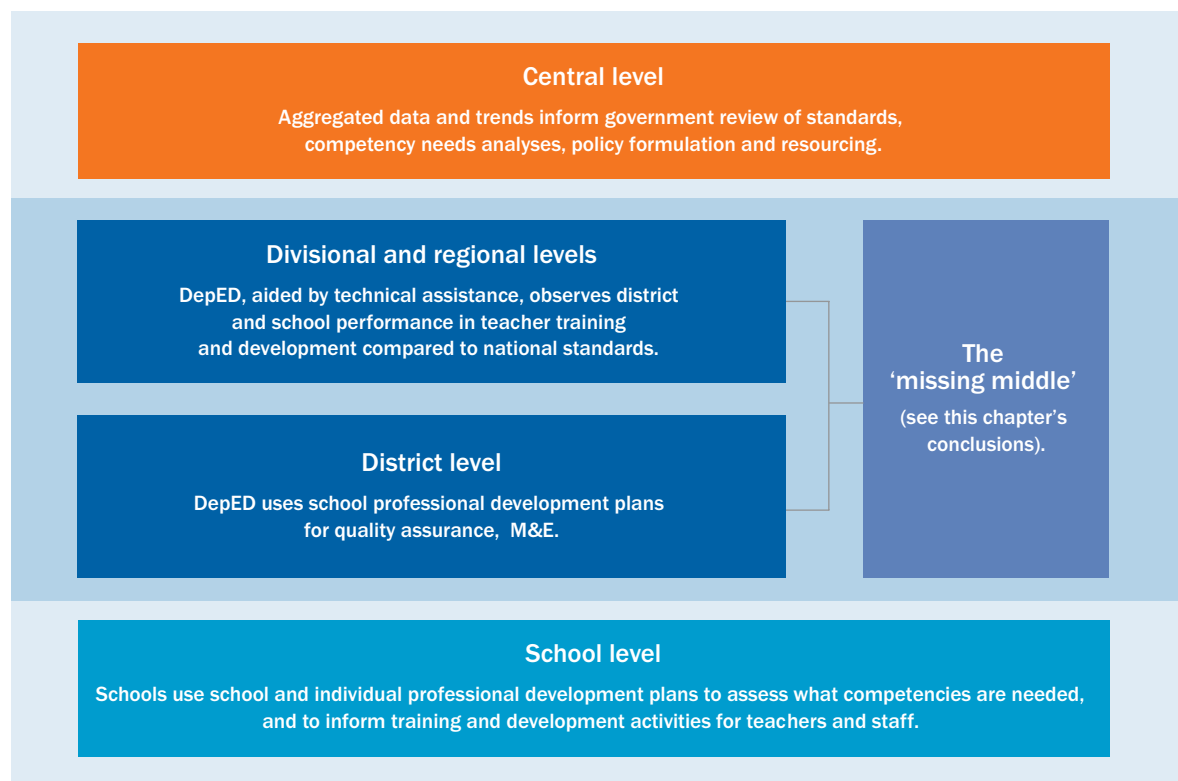
- > training and development system framework
- > training development needs analysis system for teachers and educational leaders
- > strengthened professional development and training system
- > training and development M&E system
- > infrastructure for quality training and development at region level.

Critical to success was piloting the program in regions where the national DepED was undergoing extensive re-structuring.

STRIVE's professional development approach is framed by national competency-based standards, which specify teachers' competencies. Within this framework, the system is designed as demand-based. With teachers, the process begins with schools analysing their competency needs. School context is essential. The resulting teacher's individual plan for professional development must be consistent with the school's plan for professional development and integrated into its improvement planning.

Figure 3 shows STRIVE's approach to professional development planning and personnel development at each level of government administration and shows the missing middle between the divisional and regional levels and the district level.

Figure 3: STRIVE levels of teacher professional development planning and personnel development



Training and development for each staff function is based on relevant training standards for each group—teachers, principals, and district, divisional and regional supervisors. The importance placed on principals’ training is illustrated by DepED placing the school principal program under the direct control of the National Educators’ Academy of the Philippines.

The function and quality of short and long-term training is regulated in the training and development system framework. No modality is ruled out *prima facie*, but quality standards for provision must be met. For example, training of the trainer must be provided by specified accredited high-quality providers, with priority given to programs that can be accredited for graduate units.

Lessons

STRIVE’s activity completion report highly praised the ‘learning by doing’ (capacity building) approach in establishing systems. However, this raised some limitations on the program’s effectiveness. The main limitation concerned delivery and management of training, which was considered difficult for officials to administer at district level. There was doubt about the capacity of local TEIs to be training providers for the elaborate system. There was also concern about commitment in practice to M&E, in particular with classroom application of training.⁷³

Outcomes

The three expected outcomes of STRIVE’s in-service education and training component were all measures of take-up by schools and education officers of the training assessment tools. Take-up levels were high. Of the 300 pilot schools, nearly all were using the standards tool and needs-based assessment by program end in 2010. Schools had developed professional development plans on the same basis. The practice had spread to non-pilot schools. Around 50 per cent of divisional supervisors were involved in teacher continuous professional development and using the system. Around 60 per cent of principals reported teachers were applying competencies in which they had been trained to a high extent.

Despite success factors, there is no record of the effect of STRIVE on the mathematics, science or English competencies of students, a key purpose of the investment.

The most important of STRIVE’s achievements was securing DepED’s commitment to scale-up the teacher development and management system, including educational leadership to drive change. The simultaneous organisational restructuring in the regions where STRIVE was working enabled full integration of systems (that is, from the training and development framework through to M&E and infrastructure). The changes new processes and technologies brought to work practices and work environment at various levels have informed DepED’s revised rationalisation plan for all sub-national levels of education across the Philippines.

A distinguishing feature of the rationalisation plan is to replace generalist education administrators at subnational education offices with staff selected on technical educational criteria. This development recognises that large systems need educational expertise down the chain of delivery if professional development is to be effective and have a positive impact on practice.

Insofar as STRIVE has influenced the Philippines' rationalisation plan, it is perhaps DFAT's first program to address the problem of the 'missing middle'. This is the problem of maintaining the quality and relevance of national training schemes from national planning through all subnational levels of provision to schools.

Donors, in particular, can work effectively at national and school levels, but the missing middle provides the crucial link for sustainable, high-quality professional development.

Strengthening teacher development policy through Australia Awards in the Philippines

Improving education is one of four priorities for the Philippines Australia Human Resource and Organisational Development Facility, which guides the allocation of Australia Awards and other human resource development opportunities. In education, the facility aims to improve DepED's capacity and readiness to implement school-based management under BESRA.

The facility mobilised scholarships in education in 2011, 2012 and 2013. It prioritised fields of study for improving DepED's leadership and organisational effectiveness, and its capacity for learner-centred education. Fields of study included: human resource management/performance management (4); school-based management (4); total quality management in education (13); and educational management (2).

The facility has contributed to stronger engagement between DepED and other stakeholders. For example, the Alliance of Concerned Teachers is now involved in education policy development, and other groups in developing the new curriculum for Kindergarten to Year 12.⁷⁴



Philippines school children. Photo: Save the Children

Cohort professional development in small education systems: Samoa

Samoa's NTDF illustrates how a small education system can integrate professional development around standards and performance appraisal, and link performance appraisal to certification.

The framework places less emphasis on the school—including the role of the principal and relationship of a teacher's development with the school plan—than does STRIVE. It specifies the responsibility of MoE's School Operational Division for monitoring the performance appraisal process and creating professional development plans for teachers and principals. KEIP also adopts this approach through MoE's School Improvement Unit, with specialist support working directly with schools. The direct link between ministry officers and teachers is more feasible in a small system.

Counterpoint: Effective professional development outside systems

Trust is a key principle behind community-based or alternative delivery modes for teacher development, especially in situations of community alienation from government. Restoring confidence was an important rationale for DFAT's assistance through CARE for CBE in Afghanistan.⁷⁵

Alternative delivery modes go into places that government cannot reach to educate children out of school. This usually involves short-term training of people in the local community as teachers or facilitators, typically female school graduates with no previous training. Community homes or centres are used so schools do not have to be built.

This approach is radically different to the bureaucratic model of teacher quality and standards frameworks. But it has unexpectedly succeeded in gaining access to out-of-school children, achieving learning outcomes, and establishing ownership by stakeholders.

Australia has delivered such programs through international and national non-government organisations, including these three notable programs:

- > CARE's Empowerment through Education in Afghanistan (2011–16)
- > Save the Children's Pakistan ECCE in Khyber Pakhtunkhwa (2011–15)
- > BRAC's BEAM-ARMM (2012–17).

All three programs have received government support in-country, although this has not always translated into government's willingness or capacity to continue with the work.

Afghanistan Empowerment through Education

One program with the most attested success is the Afghanistan Empowerment through Education program, designed to improve access to CBE in Ghazni, Kapisa, Khost, Paktia and Parwan provinces. This is being implemented in line with the Afghanistan Government's policy on CBE, under the national education strategic plan. Its objective is to address the problem of illiteracy in remote and rural areas (where boys' access is low and girls' schooling is prohibited).

DFAT's quality monitoring has reported consistently highly on this \$10.6 million program, finding in 2014, for example, that it was 'achieving extraordinary results in a very difficult operating environment'.⁷⁶ Results in 2014 indicated that students were meeting expected levels of reading comprehension and proficiency in numeracy and mathematics, with an average score of 75 per cent in all subjects (only 5 per cent of students had scores below 50 per cent).⁷⁷

This model was tested by other donors and is of interest to this evaluation because of its approach to teacher training. Community ownership and participation of key people with potential to drive change (including women, elders and religious leaders) is central. It covers basic education provision, including governance, through village education committees (VECs).

CBE teachers were trained in orientation to teaching and in specialist areas. An inclusive education model was added in 2012 to improve child friendliness and effective teaching to children with diverse abilities.

Training was through formal teacher training workshops (up to 15 a year). The project team observed in classrooms and regularly monitored all classes. On-the-job training was provided at intervals. In line with a memorandum of understanding, VEC members regularly visited classes and used score cards to test teachers' and students' attendance and performance. Positive outcomes included provision of better learning spaces and facilities, no student drop outs and a low teacher absenteeism rate.

Classes were also randomly selected and assessed on different subjects. Of the seven grade 1 to 3 classes, only one was assessed as less than 'good'. Of the 11 grade 4 to 6 classes, all but one were rated 'fair' or 'good'.⁷⁸ DFAT quality reports attributed success to the 'trust factor'—locally trusted teachers, low-profile community arrangements, strong local acceptance and ownership, and emphasis on human capacity rather than large-scale infrastructure.⁷⁹

The program had a strong M&E system which enabled CARE to regularly track CBE class performance from the baseline established in 2011, while promoting accountability for results.

The initiative was designed with the higher order objective of gradually transferring ownership of CBE classrooms and the payment of teachers' salaries to the MoE. DFAT has sought government commitments to sustained resourcing, but such support has not been forthcoming.⁸⁰

This type of intervention may be inherently unsustainable in the context for which it is designed, and this was highlighted by the appraiser of the original design.⁸¹

Pakistan Early Childhood Care and Education in Khyber Pakhtunkhwa

In Pakistan, the Government of Khyber Pakhtunkhwa Province did not build on Save the Children's promising pilot of community-based ECCE homes, an activity with similar training of local women, similarly high achievement (in participation) and highly valued by stakeholders and DFAT (ECCE in Khyber Pakhtunkhwa).⁸²

Towards a more sustainable alternative delivery model: BRAC in the Philippines

BRAC seems to have had greatest success in implementing the alternative delivery mode and its approach seems to have reasonable potential for sustainability and scalability in the Philippines. Pre-primary and primary children in communities without public elementary schools in ARMM will be serviced by classes run through BRAC. Three in 10 children were out of school in the region in 2008 with long-running conflict contributing to prolonged poverty and poor education governance.

BRAC's agenda is to develop the Philippine elementary curriculum and materials to:

- › allow delivery in a shorter time
- › establish 300 community learning centres and support 1128 pre-school classes
- › build the capacity of non-government organisations to manage and sustain implementation of alternative delivery
- › promote strong community participation in basic education delivery.



Salina Begum has taught at BRAC primary schools for 23 years and is the only teacher at West Dasphora School, Manikgunj, Bangladesh. Photo: Conor Ashleigh for DFAT.

BRAC uses female ‘facilitators’ from the community who are supported by parents.

BRAC uses a training-the-trainers model for facilitators with relatively brief inputs (10 days for training). Its teachers’ pay is lower than elsewhere in the Philippines. These features do not conform to expectations of what is needed for quality teachers.

The risk matrix identifies risks relating to the alternative delivery mode, including effectiveness, acceptability of unqualified teachers, and effectiveness of the training-the-trainers model.

This program has greater chances of sustainability because it supports government interest in sharing governance of basic education with non-government providers. BRAC has sought sustainability by:

- › Gaining government support for children who complete pre-primary and primary schooling through BRAC to gradually transition into the formal school system.
- › Seeking to make the alternative delivery model eligible for government funding through schemes or subsidies to private education.
- › Stimulating the interest of the Philippines Government in tight program supervision of students’ learning progress and the possibility of replicating it in the public school system.⁸³

Conclusions: To what extent are DFAT investments consistent with conditions for success of teacher professional development investments?

In some important respects, effective professional development has universal characteristics which transcend contexts. The main one exemplified in this chapter is turning training into teacher performance. The cases examined did this in various ways, with appraisal processes leveraging systematic improvements to training.

- › Systemically oriented professional development achieved this mainly by linking the training experience to needs through school-level performance appraisal.
- › Non-systemic activities achieved this through training delivery that modelled hands-on delivery and monitoring.

In the system examples, basing performance appraisal on standards for determining professional development needs is a valuable model for all programs. Many program managers regret that the training was not monitored by education ministries. They feel that training can only advance if linked to evaluation of performance.

Appraisal-based professional development drives improvement across the education system, including more efficient allocation of resources, effective specification of functions at all levels, and incentives from the bottom up.

Through this logic, STRIVE generated a solution to a long-standing problem Australia has faced—being able to influence education quality at the top and bottom, but not in the middle. The Philippines’ experience illustrates that ‘the middle’ is where donors can focus on capacity building, to provide greater depth of education expertise for quality improvement.

The systemic models described in this chapter are, in principle, highly scalable and sustainable. STRIVE was scaled and sustained, as evidenced by its take-up in the revised Philippines Rationalisation Plan for education.

The training – monitoring dynamic in alternative delivery programs was effective in achieving performance. High results were typical of all programs, but their potential for sustainable scale-up was limited. All programs sought handover to, or resourcing by, the government, but it is debatable whether they could ever be sustained on a wide scale through a government system.

The question of ‘whether conventional expectations of sustainability are appropriate for such environments’ was raised with the Afghanistan program.⁸⁴ It seems reasonable to limit expectations of impact to immediate beneficiaries in situations of high humanitarian need, and not to expect sustainability when introducing new approaches in fragile settings.

BRAC is a model of alternative delivery that might achieve sustainability in the conventional sense, with its interest in developing a private school government subsidy.

The two models of provision studied in this chapter—systemic and alternative delivery—have characteristics that complement quality training. Systemic delivery has the potential to influence national quality improvements, but may be weak on monitoring. Alternative approaches are likely to perform well in meeting stakeholder needs for quality education (including intensive M&E), but may be weak on sustainability.

While sustainability and scalability can be debated, quality professional development must lead to classroom change. Achieving change requires informed judgment about what is most feasible and sustainable in context, and flexibility to respond appropriately to positive and negative policy changes. Monitoring change requires clear program logic and design, and adequate systems and resources to collect, analyse and use data on program effects.



Global Partnership for Education teacher in a classroom in Laos. Photo: GPE/Stephan Bachenheimer

4. In service qualification

Introduction

This chapter explains the features of DFAT's least-used approach to teacher development, which enables untrained or under-trained teachers to formally qualify for their role while working. The chapter then presents case studies on Bangladesh and Laos.

In-service qualifications refer to qualifications gained by practicing teachers. There are two main circumstances in which teachers may have to obtain a qualification while working:

- > Aligning qualifications with new policies or laws on new minimum requirements for serving teachers—for example, elevating a certificate qualification to a diploma.
- > Meeting government qualification requirements in countries that have employed untrained teachers to cope with expanding student enrolments.⁸⁵

Both situations apply in DFAT's development contexts. Because the course content for this qualification often covers foundational studies and capitalises on teachers' prior learning in classrooms, an in-service qualification falls between 'teaching competence' and 'teaching practices' on the conceptual framework for teacher quality (Figure 2A, Appendix 2).

Given the extent of untrained or under-trained teachers in many countries, supporting in-service qualification can constitute 'core business' for education ministries and therefore represent a significant opportunity for scale and sustainability investments. A 2011 study of the teacher workforce in Vanuatu conveys a sense of this issue. It found that the number of unqualified teachers, combined with under-resourcing in the MoE, meant it would take 10 years for Vanuatu to qualify its workforce to meet minimum standards.⁸⁶ It is unlikely that countries with similar high levels of untrained teachers can afford the pre-service option, with its two to three-year program lengths. In-service qualification of teachers is a necessity rather than a choice in poor countries due to these and many other constraints on pre-service provision, as highlighted in ODE's *Supporting Teacher Development: Literature Review*.⁸⁷

Teacher qualification status is one indicator to be attained in Education for All. Under Goal 6—*Improving the quality of education*—countries usually include targets for trained teachers in their sector plans. While government budgets typically do not provide for professional development, they do fund it through bursaries or scholarships. ODE's literature review cites research showing that ministries tend to prioritise teacher qualification upgrade in teacher in-service.⁸⁸

While in-service qualification promises scale and sustainability, as a form of support for teacher development it is not clearly defined or common in Australia's education development program or in education development generally. ODE's literature review did not distinguish it from professional development, and did not survey the research relating to its features. The review rarely considered the distinctive focus on *obtaining a qualification through in-service education and training* (as distinct from less formal professional development).

The ill-defined nature of support for in-service training as a form of teacher development may be related to inconsistencies in how education ministries resource and manage it.⁸⁹

For the purposes of this chapter, these elements are highlighted as important when considering teacher development through in-service qualification:

- > curriculum issues
- > quality of trainers
- > course duration
- > types of study enrolled teachers undergo.

These elements make the difference between a program that develops teacher professionalism on the one hand, or becomes an unproductive compliance exercise on the other hand.

Adequacy of training is critical to investment value when teachers are upgraded because their low academic background is a factor in poor student results and where demands of a reformed curriculum must be met.

Without being clear about what in-service qualifications involves, how it differs from other professional development and what it can deliver, there is a risk that it may be deployed for ends it cannot accomplish.

Two important cases in Australia's experience of supporting in-service qualification exemplify these issues:

1. Laos Education for All – Fast Track Initiative's upgrading of qualifications of ethnic teachers.
2. Bangladesh's PEDP 3, which will replace a teaching certificate with a 'Diploma of Primary Education' in Bangladesh's primary teacher institutes by 2017.

These programs are presented as case studies later in this chapter.⁹⁰

Evidence of effective in-service qualification provision

Policy frameworks

Providing in-service qualification requires the same enabling policy frameworks as professional development: teacher standards; useful training; teacher performance; appraisal and registration; and training matched to educational demand (including adequate geographic and content coverage). These policy frameworks are discussed in Chapter 3.

In respect of useful training, in-service qualification shares the same need for quality as cohort professional development, but with more emphasis on meeting system priorities for training to achieve a teacher *qualification*.



In Lao PDR, only seven out of 10 children complete primary school. Keeping more students in school is one of the government's key development goals. Students in class in Oudomxay Province, Lao PDR. Photo: Bart Verweij/World Bank.

Features of quality in-service qualification practice*

Lessons from ODE's literature review and Australia's development cooperation experience suggest that training based on in-service qualifications needs to focus on classroom application and target academically capable candidates. It must meet professional requirements, but be manageable for working teachers to complete and sustain. Similar to pre-service, in-service qualification must have a credible assessment system and be delivered through institutions that meet government standards.

Classroom application

A quality in-service course maximises teachers applying their learning and their engagement in teaching a class as the starting point. This is different from a pre-service course which has a more applied approach to the disciplinary foundations of education. In-service teacher development needs to respect the characteristics of adult learners with assignment tasks and the practical expertise acquired by experienced teachers when selecting skills for development. At the same time, in-service qualification is an important opportunity to challenge conventional wisdom or traditional paradigms that may be incompatible with reformed policy, curriculum and pedagogy; and to build habits of critical reflection in teachers.

An effective way to maximise the teaching situation and incorporate theoretical perspectives is the action research model of curriculum delivery. In this model, the in-service provider designs problem-based assignments that use theoretical and academic material to guide teachers to investigate a problem in teaching or children's learning. They then trial it and analyse outcomes with others in the course.⁹¹

* This section provides an overview of DFAT's in-service qualification experience compared to the SABER teacher policy 'Qualifications: Preparing teachers with useful training and experience' and, where relevant, ODE's *Supporting Teacher Development: Literature Review*.

Selecting academically suitable candidates

As with pre-service, selecting candidates is important, particularly when upgrading qualifications to ensure efficient use of limited MoE resources. The Vanuatu teacher workforce study found that many academically unqualified teachers were being upgraded because the MoE had not used data to identify those academically able to profit from it.⁹² With teachers needing upgrading because of very low academic backgrounds, a more suitable strategy may be to make an equivalent secondary qualification accessible.

Getting the workload right

Duration of study is critical. Credit weightings for in-service qualification units should be appropriate for working teachers to manage, and should not replicate the requirements of pre-service education. Working teachers should not be overloaded with assignments. The need to accumulate an unrealistic number of unit credit points is often why candidates do not graduate. At the same time, training duration must be long enough to equip candidates with enduring professional expertise.⁹³

Credible assessment

Qualifying from an in-service program is different from professional development training. Assessment credibility is the gatekeeper, which is a problem with teacher qualification upgrade in Indonesia.⁹⁴ The ideal, although expensive, includes teacher observation. This may be possible for small systems (as in Samoa for teacher appraisal).⁹⁵

Maintaining quality

The choice of institution for delivering in-service qualification training can affect quality and coherence. Sometimes it is expected that MoE curriculum officers can deliver programs. But awarding institutions can create difficulties in the recognition of course work or prior learning if they do not have ownership of the curriculum. This was a key issue in implementing the in-service upgrade of teachers to a Bachelor level qualification in Indonesia.⁹⁶

This chapter looks at two cases of providing in-service qualifications. While each has a different approach, they are similar in pooling donor support around a sector plan.

Case 1: Lao PDR Education for All – Fast Track Initiative 2010–14

This case was selected because it illustrates how implementation can impact on in-service qualification delivery, particularly when undertaken to fill large skill and knowledge gaps.

The development context

While Laos is still a Least Developed Country, it is experiencing strong but uneven growth. The poverty rate in rural areas is 32 per cent, compared to 17 per cent in urban areas.⁹⁷ Poverty rates are much higher for the three main non-Lao Tai groups.⁹⁸ Though Laos expects to attain primary education enrolment targets by 2015, learning performance is very low and disparity marked, with minority ethnicities lagging.

The reform situation

The Government of Laos prioritises basic education under its Seventh National Socio-Economic Development Plan 2011–2015. Economic growth and regional economic integration are national objectives. Laos is keen to exit from Least Developed Country status by 2020 which

requires it to lift its educational attainment levels, particularly with transition to and completion of junior secondary school. Another strong driver is the ambition to become part of the integrated Association of Southeast Asian Nations Economic Community by 2015.

National unity is a high-level political commitment. There is a firm imperative to use Lao language for cultural unification, and it is the language of instruction from Grade 1, despite that around 45 per cent of children speak a different first language and consequently have to learn in a language they do not understand.

Table 11: Laos' education statistics

Number of students (primary and secondary)		1,481,142
Net enrolment rate (primary)		98.5%
Net enrolment rate (lower secondary)		78.1%
Net enrolment rate (upper secondary)		45.8%
Number of teachers (primary and secondary)		69,217
Percentage of female teachers (primary and secondary)		50.8%
Percentage of teachers trained (primary)		97%
Number of schools (primary and secondary)		10,538
Percentage of students who achieve minimum proficiency standards in reading (Grade 5)	Independent	19%
	Functional and independent	97%
Percentage of students who achieve minimum proficiency standards in mathematics (Grade 5)	Independent	1%
	Functional and independent	34%
Total public expenditure on education as % of total government expenditure		13.6%
Total public expenditure on education as % of gross national product		3.4%
Percentage of education budget spent of recurrent costs (including salaries)		87%

Data sources: *Education Management Information System, Annual Report 2014–15*, Ministry of Education and Sports, 2015, p. 376; *2015 Education for All Global Monitoring Report*, UNESCO, Paris, 2015; *Assessment of Student Learning Outcomes, Grade 5, 2010 Report*, Ministry of Education and Sports (with technical assistance from the World Bank), 2010, p. 24; *Department of Finance, Ministry of Education and Sports*, 2014–15.

Australian support

At the time of the Lao PDR Education for All – Fast Track Initiative 2010–14, Australia co-chaired the Lao Government-led Education Sector Working Group, which jointly planned government and development partner contributions to education. Australia had an ‘extremely good profile, reputation and leverage in the sector’, related to the well-received LABEP 1999–2007.⁹⁹

LABEP’s innovative approach to in-service qualification preserved student teachers’ attachment to their home villages, by alternating semesters between residential study and village-based work placements. This resolved the (universal) problem of supplying teachers to remote areas. Teachers’ knowledge of their pupils’ home language meant the teachers were better able to introduce Lao language at the most appropriate time and stage of the children’s learning and development. LABEP’s 2012 impact evaluation found that more than 75 per cent of LABEP-trained teachers were still working in their remote schools. Net enrolment and survival rates in LABEP-supported provinces also showed clear improvement.

Table 12: Education for All – Fast Track Initiative program information

Initiative name	Education for All – Fast Track Initiative (INJ396)
Time period	2010 to 2015
Implementation modality	Ministry Program Implementation Unit
Status	Active
Location	56 most disadvantaged districts
Total value	\$22.9 m; co-financed with World Bank (US\$15.5 m) and GPE (US\$30 m) (23.86% spent on teacher development to August 31 2015)

The initiative

The US\$65 million Education for All – Fast Track Initiative was the biggest education intervention in the history of Laos. It was developed as a sectoral program to implement the strategies and achieve the targets of the Laos Education Sector Development Plan 2011–16. Through the initiative, the government sought to rapidly improve performance on MDG 2 access targets in particular, including better learning experiences and outcomes for disadvantaged groups.

The investment's focus was 'to increase the coverage and improve the quality of pre-primary and primary education with a focus on the most educationally disadvantaged children'.¹⁰⁰

The investment selected 56 priority districts with greatest educational disadvantage. The program was multi-faceted, with a very large access (community-based school construction; school meals) and quality program. The original timeframe was three years.

Australia's contribution was pooled through a World Bank Trust Fund, mostly for 'Component A: Access and Quality for Pre-Primary and Primary Education', which included the in-service teacher upgrading program (Sub-component A3).

As well as teacher upgrading, this sub-component covered extensive quality inputs to pre-primary and primary education, including:

- › learning assessments
- › learning materials
- › training of village, district, provincial and ministry officials in pedagogy
- › a huge professional development program for 9500 teachers and school principals in the government's Schools of Quality program, covering inclusive education, multi-grade teaching, child-centred learning, school health and nutrition
- › school management and leadership.

The upgrading program was for approximately 1500 teachers who had entered teaching with five years of education and three years of teacher preparation (the '5+3 qualification') to bring them to the '8+3 qualification'. This was pursued through an accelerated 16-week training program.¹⁰¹

Candidates were targeted in line with LABEP's focus on ethnic teachers. Selecting teachers with such a low academic background was necessitated by the insufficient graduates of junior secondary schooling from target areas.

The Education for All – Fast Track Initiative involved 'a comprehensive package of in-service training provided through the Schools of Quality approach'.¹⁰² This package included: training in child-centred teaching techniques; teaching Lao language to those whose mother tongue was not Lao; multi-grade teaching (to help expand access in remote areas); and pedagogical support from the District Education Office. Local officials conducted the training. UNICEF was to transfer capacity to trainers within a year.

Lessons

From early in implementation, the Schools of Quality approach experienced problems that slowed progress and resulted in overcentralised management. Initially, the government faced disbursement difficulties, particularly at subnational levels. This, and insufficient capacity to absorb the scale and complexity of activities, was addressed with additional technical assistance. Inadequacies in following-up training workshops by mentors were addressed by additional training of supervisors.

More substantive and serious, however, were issues with design. Several key points were raised in the program's mid-term review, the independent evaluation and DFAT's 2012–13 aid program performance report for Laos.

- > The 'fast track nature of the program, with pressure to achieve ambitious targets over an unrealistic timeframe, detracted from the quality of some program outputs.'¹⁰³
- > The three-year timeframe, combined with program complexity, 'resulted in stakeholders and partners focusing on the management of tasks and inputs (transactions), as opposed to pursuing quality outputs and outcomes within an integrated educational framework.'¹⁰⁴
- > The mass upgrade—particularly in an accelerated and abridged timeframe—required organisational follow-up support and monitoring. Though supervisors were trained, their capacity for monitoring remained questionable and district budget constraints limited their capacity to visit schools to provide support.¹⁰⁵ Budget problems for effective district operation had been well documented and could therefore have been anticipated.¹⁰⁶
- > Failure to register which school principals and district staff had been trained, even though \$1.7 million was spent. This was a missed opportunity to strengthen support networks and context for newly trained teachers and focus district attention on impact in schools.¹⁰⁷

An additional problem highlighted in interviews was that 20 per cent of ethnic teachers dropped out of the Education for All – Fast Track Initiative before their contracts were completed.¹⁰⁸

An important conclusion from DFAT's final aid quality check was that:

Delivery modalities must be fit for purpose: the EFA-FTI was delivered through a ... model, which proved effective for delivering activities related to construction but less so in delivering quality education inputs because of the model's output driven nature.¹⁰⁹

A feature not commented on in quality reviews is allocating *16 weeks* to get teachers with primary backgrounds up to the levels of junior secondary graduates and skilled in the demanding areas of teaching students to learn in a second language. By contrast, the earlier Laos – Australia Basic Education Program (1999–2007) provided a full-year bridging program to bring girls with only a primary education (to Year 5) up to junior secondary (Year 8) completion equivalence.¹¹⁰

Outcomes

The indicator of success for the Schools of Quality program was that '50 per cent of teachers in each school have passed the teacher training curriculum and/or through upgrading in-service programs have qualifications equivalent to at least 8+3'. The program met this target. While DFAT's aid program performance report 2013–14 notes no improvement in reading scores, the learning assessments the program supported have been of enduring value in helping with institutionalisation in Laos.

While the findings were disappointing, the Laos Education for All – Fast Track Initiative should be acknowledged as one of few investments that assessed learning outcomes (reading scores) of students in schools where teachers had been retrained.¹¹¹

Case 2: Bangladesh Third Primary Education Development Program 2011–17

Bangladesh's in-service qualification is an interesting contrast to the Laos case, particularly the longer timeframe and staged approach to securing quality in curriculum reforms and training, obtaining buy-in at all levels, and adequately preparing institutions to deliver the qualification.

The development context

The Bangladesh system is one of the largest in the world with more than 18 million primary aged children enrolled. The system has undergone rapid expansion to meet MDG 2 of universal access to primary education, using untrained teachers.

Bangladesh has made progress in enrolment (97 per cent in 2014 compared to 87 per cent in 2005), but national assessments show learning is critically low. Only about one-quarter of children who remain until Grade 5—the final year of primary school—achieve the expected competencies as defined by the national curriculum.¹¹²

Table 13: Bangladesh education statistics

Number of students (primary and secondary)		26,665,989
Net enrolment rate (primary)		97.3%
Net enrolment rate (secondary)		50.0%
Number of teachers (primary and secondary)		726,013
Percentage of female teachers (primary)		54%
Percentage of female teachers (secondary)		21%
Percentage of teachers trained (primary)		85%
Number of schools (primary and secondary)		107,085
Percentage of children who achieve minimum proficiency standards in Bangla	Class 5	25%
	Grade 8	44%
Percentage of children who achieve minimum proficiency standards in mathematics	Class 5	33%
	Grade 8	35%
Total public expenditure on education as % of total government expenditure		11%
Total public expenditure on education as % of gross domestic product		2%
Percentage of public expenditure on education spent on teacher salaries		Over 90%

Data sources: *Bangladesh Education Sector Review*, World Bank, Washington, 2013, pp. 5, 9, 29 and 88; *Education for All 2015 National Review Report: Bangladesh*, Government of Bangladesh, 2015, pp. 16, 46–7 and 51; and *2015 EFA Global Monitoring Report*, UNESCO, Paris, 2015, p. 376.



Dr Shafiqul Islam, Director of Education, BRAC, talks to staff at a BRAC school in Koral slum, Dhaka. Photo: Conor Ashleigh for DFAT.

The reform situation

Bangladesh's PEDP 3 is a sector-wide approach that represents the vision of the Government of Bangladesh for educating all students from pre-primary to the end of primary. As with the Education for All – Fast Track Initiative in Laos, it is involved in all key areas of primary education, with extensive activities in access, quality improvement and management capacity building.

PEDP 3 is a government-owned and led program of reform. Cooperation between donors has been essential for policy influence considering that donors collectively contribute less than 15 per cent of total costs.

Australian support

Australia previously chaired the PEDP 3 Donor Consortium and is one of nine development partners (with Asian Development Bank, Canadian International Development Agency, Department for International Development (United Kingdom), European Union, Japan International Cooperation Agency, Swedish International Development Cooperation, UNICEF and World Bank). The Government of Bangladesh provides the majority of funds. Australia has committed \$49 million over four years.

Australia's areas of interest are educational data collection and usage, learning assessment, and approaches to improving learning. The specific objective for Australia's contribution is 'increased equity of access to, and improved outcomes from, health and education services'.

Table 14: Third Primary Education Development Program information

Initiative names	Support to PEDP 3 and UNICEF Technical Assistance (INJ957 and INK663)
Time period	2011 to 2017
Implementation modality	Primarily grants to Government of Bangladesh
Status	Active
Location	Nation-wide, Bangladesh
Total value	\$53.4 m (9.8% spent on teacher development to June 30 2015)

The initiative

In PEDP 3, the development and implementation of a new teaching qualification—the Diploma in Education—is a disbursement-linked indicator. The starting point is practising primary teachers who have nothing more than an induction course. The ultimate objective is for the qualification to become a *pre-service* diploma, replacing the present 30-year old certificate.¹¹³

The Government of Bangladesh approved the Diploma in Education in 2014. It is already being conducted in 29 primary training institutes, with plans for take-up by all 57 by 2017. The first cohort of 1200 teachers has completed training.¹¹⁴

One distinctive feature of the diploma is the ‘Each Child Learns’ outcome-oriented curriculum and pedagogical approach, being piloted in Bangladesh in 300 schools. This pedagogy challenges the predominant teaching for rote learning. Research indicates how difficult such a paradigm change in pedagogy is in low resource, low-skill contexts.¹¹⁵ A DFAT case study of introducing ‘Each Child Learns’ in Bangladesh described what the change entailed (feature box below).

Changing the paradigm for early childhood learning in Bangladesh

In Bangladesh, learning to read typically means rote learning of the letters of the alphabet in order and out of context, followed by recitation of texts and spelling out of words. Textbook content is memorised and recited rather than understood.

By contrast, a typical Each Child Learns classroom combines activities focused on encouraging children to read, including through a wide selection of colourful, attractive and interesting books in a ‘book corner’ and by encouraging children to read independently.

The teacher reads story books to the class, discusses characters from the stories and helps children build their oral vocabulary. The teacher also facilitates reading games and works with small ability groups to facilitate the acquisition of a ‘sight vocabulary.’ Most critically, the teacher spends one minute each day with each learner to listen to them read. Thus, in Each Child Learns, learning to read and reading itself take place in a context and not independent of it.

James Jennings, DFAT Senior Education Advisor

Lessons

In keeping with good practice, the training approach for this new pedagogy integrates centre-based training with prolonged and phased classroom practice. It targets head teachers, instructors and local-level officials responsible for supervising schools, and teachers. Pilots are being conducted in all practice schools that have adopted Each Child Learns, to ensure it remains at the centre of training.

Early Child Leans appears to be an effective approach to training for a transformative pedagogy, and one that recognises the pace and stakeholders needed to effect a transition from the norms of rote practice. It is also strategic in attempting to scale-up and institutionalise pedagogical change through a national qualification requirement.

It is not certain whether Each Child Learns will survive in the Diploma of Education or as support to learning. Both the DFAT case study and DFAT mid-term review emphasised that there is little understanding of education in the local government cadre responsible for education, including with supervisors, and rare experience of primary education among lecturing staff in primary training institutes who will have carriage of the program. Most partner countries face similar obstacles to achieving durable improvement in the quality of in-service

teacher development. In fact, survival of Each Child Learns in Bangladesh thus far is probably only due to it being embedded in PEDP 3.

A related lesson from this evaluation is to think about *incentives* for Diploma of Education instructors to educate and train teachers differently, as explained by a DFAT program manager in Bangladesh (feature box below).

Motivating teacher educators

Another issue is that the instructors will not benefit in any way through the introduction of this course. So why should they be motivated? But somehow some are willing and motivated, not only through my personal intervention, I was in the system for a long time—almost each and every teacher knows me ... but I cannot say each and every instructor is motivated. Previously they would go to the classroom and lecture—repeat. This time, they have to prepare two to three hours every day. Without preparation they cannot go. The students have already got the resource book and they have many questions. Without preparation the instructor cannot answer those questions.

Bangladesh PEDP 3, Interview 3, Program manager

Conclusions: To what extent are DFAT investments consistent with conditions for success of teacher in-service qualification?

The contrast between the two cases in this chapter highlights the conditions for successfully implementing in-service qualification investments, including characteristics of good practice, which may be applicable in different contexts.

As noted in the introduction, successful in-service qualification depends on governments and donors being clear about the intrinsic characteristics and demands of *qualification* training as distinct from *professional development*. Getting it right requires attention to the quality of curriculum and trainers, and determining a study load and content that will motivate practicing teachers to learn and improve as professionals, and successfully obtain a qualification while working.

In part, the problems of the Education for All – Fast Track Initiative derived from both MoE and donors underestimating the demands of qualification training.

The lesson is that the kind of transformation sought through qualification training cannot be realised by treating it as an equal part of the busy agenda of sector-wide education plans and reforms. In-service qualification assistance needs to have its own clear logic and resources, rather than being one program activity or output among many.

This is the difference between the Laos Education for All – Fast Track Initiative and Bangladesh PEDP 3 approaches. The latter envisaged timeframes, reform focus and institutional partnerships distinctively needed for a major capacity change.

Even while noting the strengths of the PEDP 3, its mid-term review concluded that the program may not be sufficiently embedded in institutions and downstream systems. The review identified three priorities for improving ownership and sustainability, both equal conditions of success for qualification-based investment:



Australia Awards recipient Chean Toing Ain from Cambodia is studying a Masters of Education at the University of Adelaide. Photo: DFAT.

1. In-service provision should be embedded in detailed analysis and assessment of the entire process of teacher management and development, and the institutions concerned with this.
2. To create sustained momentum for change, awareness and understanding of the need and benefits of quality education should be reinforced at district, subdistrict, school and local community levels.
3. A program of assessment and evaluation should explicitly accumulate and communicate evidence of quality impact.
 - This could be used for persuading ministries to persevere with difficult and demanding reforms such as in-service qualification.

Despite its lack of prominence in Australian aid, in-service qualification is a strategic intervention. It addresses a major barrier to improving learning outcomes in partner countries—the extent to which untrained teachers are used in schools. It provides a useful vehicle for pedagogical reforms to be institutionalised and scaled up through ownership of qualifications by teacher training colleges. It also provides an opportunity to link colleges with practice schools to support improved quality and relevance of pre-service and in-service teacher qualifications.

While the Education for All – Fast Track Initiative did not achieve its expected learning improvement outcomes, it did establish a highly-valued learning assessment system and institutionalising data collection and analysis. The quality of program outputs related to teacher upgrading did not meet expectations due to unrealistic timeframes, program complexity, inadequate design and failure to address known district-level budget constraints.

It was too soon to obtain data on outcomes of Bangladesh's PEDP 3 but, as noted earlier, DFAT's mid-term review identified M&E as a priority for future program management and evidence-based improvement.

5. School-based professional development

Introduction

This chapter discusses the evolution of DFAT's school-based teacher development investments, within international and national agendas, for improving education quality through school improvement. It then presents a case study on Pakistan.

In Australia's experience, school-based professional development corresponds to 'teaching practices' and 'relationships and accountability' in the Conceptual Framework for Teacher Quality (Figure 2A, Appendix 2).

Teacher development through the school is an evolving story in Australian aid. It has grown out of school improvement programs, which themselves belong to different paradigms of effectiveness. Levers for improving teachers' performance have differed accordingly. There have been three main approaches. A brief summary of these helps explain the indirect route to improving teacher capacity at school level in the Australian program.

Quality as inclusiveness (UNICEF)

The first model is DFAT's oldest school-based approach—support for the UNICEF model. This model usually builds on government structures for school-based professional development: clusters of schools around a model school.

UNICEF adds value through the development of child-friendly schools (Myanmar, Sri Lanka, Timor-Leste), schools of quality (Laos), and school-based management (Indonesia – Papua Education Sector Development). The common element here is the generalised approach to achieving conducive teaching and learning environments, good school management and community participation. These three dimensions affect a child's receptivity to learning, making the model relevant to quality teaching and learning.

Improving schools' accountability for performance

The second model that has influenced Australia's approach to teacher improvement through school improvement is a service delivery orientation. In this model, enabling and leveraging school accountability to the community for students' learning was the strategy for improved teacher performance. Enabling was through more decentralised control by the school over its performance. Accountability came through an emphasis on monitoring, measuring and reporting results.

This has had a strong influence on Australia's designs from 2005 and is ongoing (Fiji, Indonesia, Myanmar, the Philippines, PNG, Samoa, Timor-Leste, Tonga and Vanuatu).

Improving schools' performance

The third model supported by DFAT is an emerging one. It derives from the difficulties of delivering *quality* improvements higher up the service delivery chain. It invests in a bottom-up approach to quality classroom teaching and learning and the school's orientation to improving student performance. From this classroom and school level, what works is then fed back up the system through policy work.

In Indonesia, the 2016–2019 Innovation for Indonesia's School Children is an intervention of this kind, and the Professional Development for Education Personnel (ProDEP) program is part of the preparation for delivering it. These programs have developed out of the service delivery paradigm, recognising that effective teachers require professional knowledge and skills as well as school-level accountability and management mechanisms.

One other model featured in this case study does not fit the above paradigms, but offers an instructive variation on the first and may have useful lessons for the second and third.

It involves **a dedicated focus on improving teacher knowledge and skills at school level**, as exemplified by the Pakistan Gilgit Baltistan Education Development and Improvement Program (GB-EDIP). However, this model has problems with sustaining institutions of school-based professional development, namely school instructional leadership by the principal and support by an active school cluster.

Evidence of effective school-based provision

Policy frameworks

The compelling rationale behind school-based teacher professional development is that this is where and how teachers' continuous professional learning takes place. No teacher can improve student learning without a habitual practice of teaching improvement.¹¹⁶ In all education systems, including developed ones, continuous professional development is essential for quality.¹¹⁷

Effective continuous professional development requires teachers to have the capacity and resources to:

- > critically analyse their teaching compared to their students' learning needs and progress
- > identify how to improve their skills and students' learning, with guidance from their principal.

The school or cluster is not the only input here. Teachers may also take part in university programs or system professional development.

The central principle is integration, where ... knowledge is applied, shared and reflected upon at classroom and school levels.¹¹⁸

In poor systems, many untrained teachers only ever get professional development from their peers.¹¹⁹

Although continuous professional development is indispensable, it is difficult to make it sustainable in developing contexts. School effectiveness research has shown that it depends on these conditions:

1. a school principal with capacity and motivation to improve teachers' practice and performance¹²⁰
2. school discretionary budget to fund learning improvement

3. a network, cluster or other enabling system to facilitate peer learning and support between school staff¹²¹
4. technical oversight and support from a sub-district or district supervisor.¹²²

These conditions align with SABER's teacher policy domains, especially instructional leadership and professional development. Australia's program experience further highlights what to focus on for effective school-based teacher improvement, as outlined in the next section.

Features of quality school-based professional development practice*

Instructional leadership: Leading teachers with strong principals

There are three main policy requirements for principals.

The first is a system of recruitment that selects principals for instructional leadership. This involves principals with leadership skills, educational expertise and experience, capacity to mentor, and understanding of the role classroom assessment plays in improving learning.¹²³

Institutionalising recruitment is a major challenge in partner countries because the appointment of principals is often politically driven.

The second is that appraisal of principals should take the school's learning performance into account. This includes monitoring teachers and student results. Frequent classroom assessments of school learning are needed so data can be aggregated against grade-level benchmarks in school reporting as a system indicator of performance.

Results-based school and principal performance requires systemic school monitoring data to be recorded in school information systems and learning outcomes to be prioritised in system performance.

The third is that principals need to be empowered to effectively manage teacher performance. As outlined in earlier chapters, embedding competencies in the teacher appraisal system is central to school support for professional development. But a 2013 national baseline study of principals and supervisor competencies undertaken for the Indonesia Education Sector Support Program found that the teaching observation and supervision role was one principals felt least able to do. Peer appraisal and self-appraisal ('Lesson study' below) are also good routes to teacher reflection and they help principals make honest judgments in what can be pressured local situations.

Professional development: Supporting teachers to improve instruction

DFAT's experience highlights three distinct policy requirements for effectively supporting professional development of teachers in schools.

First, school grants as operational revenue need to specify professional development costs as eligible expenditure. Typically this could be transport for teachers and principals to attend cluster meetings. Cluster meetings are rarely funded from district budgets and teachers do not attend if they have to pay out of their own pockets.

* This section provides an overview of DFAT's school-based teacher development experience compared to the SABER teacher policy domains of: 'Instructional leadership: Leading teachers with strong principals' and 'Professional development: Supporting teachers to improve instruction', and, where relevant, ODE's *Supporting Teacher Development: Literature Review*.

Second, districts need to recruit supervisors with educational leadership and management experience to support and monitor schools. An operational budget for supervisors to visit schools is also necessary.

Third, supervisors' job descriptions need to include oversight of a local professional development activity. Ideally a supervisor should take the lead in organising and monitoring a cluster program, in collaboration with cluster principals.

Lesson study

The kind of professional development provided through the school or cluster usually depends on the capacity of teachers and principals. This is often a weakness. However, selected programs have performed well in helping teachers analyse and learn from classroom experience, which is the best source of applied knowledge if appropriately supported.

Lesson study is an acclaimed model of effective peer development in a cluster or school. It comprises peer examination of a teaching issue by a community of teachers, collaborative development of a teaching approach to it, and observed implementation of lessons learned. During teaching, observers focus on what students are doing—an outcome-focused way of appraising effective teaching. The session concludes with a structured conversation among teachers on lessons learned and implications for everyone's practice. While this requires particular training, lesson study has strong appeal to education ministries in some of Australia's partner countries, such as Indonesia and Laos, and to ministries of APEC member countries.¹²⁴

The case: Pakistan Education Development Improvement Program

This case study compares education arrangements in other programs with Pakistan's EDIP to bring out the multiple system issues connected with school-based professional development. It also presents an example of a public – private partnership for learning improvement in a difficult environment, and discusses the ongoing role of such partnerships in complex situations.

The development context

Pakistan is a fragile and Lower Middle Income Country that lags well behind other countries with similar average incomes on most of its human development indicators. Only two-thirds of children are enrolled in primary school and more than half the adult population is illiterate.

Gilgit Baltistan—the site for EDIP—has some of Pakistan's most remote and marginalised communities. Security issues, sectarian violence and challenges of terrain and climate make Gilgit Baltistan one of the most difficult environments for delivering development assistance. The complexity of local politics and governance calls for implementing partners with long-established knowledge and relationships in the region. The Aga Khan Foundation is a multi-institutional education service provider of this type. It includes the Aga Khan Education University, a schools network, and services dedicated to education and human development.

Table 15: Pakistan education statistics

Number of students (primary and secondary)		26,529,372
Net enrolment rate (primary)		68.5%
Gross enrolment rate (secondary)		37%
Number of teachers (primary and secondary)		1,395,315
Percentage of female teachers (primary)		48.7%
Percentage of female teachers (middle secondary)		66.8%
Percentage of female teachers (upper secondary)		58.3%
Percentage of teachers trained (primary)		84%
Number of schools (primary and secondary)		218,206
Percentage of Class 3 children who can read sentences (Pashto, Sindhi, Urdu)	Rural	41.4%
	Urban	58.6%
Percentage of Class 3 children who can do arithmetic (2-digit subtraction)	Rural	39.0%
	Urban	54.9%
Total public expenditure on education as % of total government expenditure		9.96%
Total public expenditure on education as % of gross national product		2.1%

Data sources: *Education for All 2015 National Review Report: Pakistan*, Government of Pakistan, 2015, pp. 5, 16 and 20; *2015 EFA Global Monitoring Report*, UNESCO, Paris, 2015, pp. 380 and 393; *Pakistan Education Statistics 2013–14*, Government of Pakistan, 2015, pp. 9–10, 13, 15 and 183; *Annual Status of Education Report ASER–Pakistan 2014*, South Asia Forum for Education Development, Islamabad, 2015, pp. 72, 73, 82 and 83.



A young girl does her school work in Karachi, Pakistan. Photo: UN Photo/John Isaac.

The reform situation

Two important political developments occurred in Pakistan in 2010. One was the 18th Amendment to the Constitution which devolved responsibility for education and other basic services to provincial governments. Many provinces at the time, including Gilgit Baltistan, did not have the willingness and capacity to deliver these services. In Gilgit Baltistan, success in influencing policy change and sustainable development hinged on working effectively with the provincial government to frame its sector plan and develop service delivery capacity.

The other development was adding Article 25A to the Constitution, which specified education for children aged 5 to 16 years as a fundamental right. This opened the door to advocate access for girls and children with disabilities. Both of these developments were also priorities for Australian aid.

Australian support

At the time of its investment in 2010, Australia's objective in Pakistan was to support a stable, secure and democratic country through development and poverty reduction. Australian aid for education continues to be highly relevant, but was scaled down in 2015 due to budget restrictions (with only the Khyber Pakhtunkhwa Education Program continuing beyond 2015).¹²⁵

Table 16: Education Development Improvement Program information

Initiative name	Gilgit Baltistan Education Development and Improvement (INJ061)
Time period	2010–15
Implementation modality	Aga Khan Foundation
Status	Complete
Location	Seven districts in Gilgit Baltistan, Pakistan
Total value	\$12.4 m (19.6% spent on teacher development to June 30 2015)

The initiative

The EDIP started as a three-year program covering access, quality, and education governance and management. It was extended at the end of 2013 for two more years on a no-cost basis. It supported 109 schools, organised into 21 clusters.

The program has worked directly with schools and provided technical support to the provincial government to implement the Gilgit Baltistan Education Strategy, including institutionalising changes at school and cluster levels. It has sought to improve how education department officials manage education, and engage in community mobilisation.

EDIP's quality objective is to improve the quality and relevance of education in targeted clusters. This is the only program in Australia's portfolio with cluster development as an objective. The intended outcome is: improved content knowledge; teaching skills; attitudes and commitment towards learning; and participation of communities.

EDIP's cluster model is based on learning resource schools around which a cluster of 'feeder schools' operates. This involves a group of primary schools 'feeding' most graduates to a corresponding secondary school. In the EDIP model, the learning resource schools function both as teaching schools and as the destination for graduates of the primary schools they support. Other systems have similar model school structures, though not necessarily with the primary – secondary hierarchy. The approach is summarised in Figure 4.

Figure 4: Gilgit Balitistan Education Development Improvement Program's cluster approach



The difficulties and remoteness of the terrain in Pakistan effectively limited the possibility of wider networking and professional collaboration and provided the rationale for a centralised approach to resourcing the clusters, departing from the usual model of depending mainly on schools to resource their own improvement.¹²⁶ Four other differences are notable between EDIP's approach and the usual learning resource school – cluster school model:

1. The role of the learning resource school is taken further and is reminiscent of a teaching school in which principals and teachers from other schools receive formal technical and academic direction. The learning resource school role is analogous to how selected high-performing schools are used to lead improvement in other schools in developed systems.
2. As a secondary school, and therefore also the destination school of primary feeders, the learning resource school has a direct stake in the quality of the primary school graduates.
3. The EDIP provides high-level technical support to the cluster in the form of a specialist teacher educator (also called a professional development teacher) who has a Master of Education degree. The teacher educator, rather than the principal or staff, leads interactions with the cluster schools, including mentoring of teachers.¹²⁷
 - This is different to typical cluster models, in which mentoring of teachers would be undertaken by the principals or sometimes by the district supervisor.
4. Much greater use is made of direct formal training and institutional provision of training, rather than of peer-organised activity, for example:
 - Qualification-based training through Aga Khan institutions: large numbers have completed these courses, with 211 teachers from six districts obtaining some level of education qualification.
 - Shorter training (between five days and two weeks) in educational leadership, teaching for children with disabilities, and subject strengthening. A total of 934 participants have completed such courses.
 - Cluster workshops, which appeared more like the UNICEF model, covering general topics associated with child-friendly environments. Around 1500 teachers, principals and district managers have attended these.

Lessons

In terms of its own objective of *improving the quality of education in targeted clusters*, it is not clear if the cluster system played a role in the development of partner schools.

District supervisors were not responsible for a cluster program and it is not clear how they contributed to sustainable quality improvements. Training was mostly delivered by external institutions. The program drew strong criticism in DFAT's mid-term review of EDIP for some classes being left without teachers for up to two weeks at a time.¹²⁸

The mid-term review stressed the pivotal role of the teacher educator in all aspects of support. It found few principals actually observing classes, and that they thought this was the teacher educator's job. Teacher educators did not appear to be part of the government staff establishment. The project provided for institutional training of 30 government teachers as teacher educators, but the model did not demonstrate good practice when using clusters to resource or deploy a sustainable cadre of specialist educators. To the extent that the EDIP accomplishes high-quality training by using external resources, its key limitation is that it *is unlikely to be a sustainable model for continuous professional development within schools*.

Outcomes

DFAT's mid-term review indicated that the EDIP produced good results in quality improvement. A large majority of teachers and principals demonstrated skills acquired through training.

No assessments against student baselines were undertaken, so it is not known if EDIP had any impact on student learning.

An impressive achievement was the new enrolment of 265 children with disabilities, along with increased teacher awareness of their needs and greater confidence of teachers in addressing them.

DFAT's mid-term review reported disappointing progress with strategic planning, particularly with the Gilgit Baltistan Education Strategy. However, it held responsible the unrealistic three-year timeframe for such developments given the complex environment. In response to the mid-term review's recommendation, the EDIP was extended by two years, in which time the education strategy was developed with the cluster model institutionalised in it.

Comparison with other models

The EDIP has a clear strength compared to other models of teacher skilling through school-based development. This is the priority given to adequacy of training—length, intensity and quality.

EDIP recognised the serious commitment of time and expertise required for acquiring complex knowledge and skills—whether subject-based knowledge for teaching, or technical and policy knowledge to inform educational management.

This priority resonates with the verdict of some other programs that stronger technical investments are necessary for teacher skilling at school level and that more typical cluster approaches are unlikely to deliver this.

Limitations of the cluster approach in disadvantaged contexts

UNICEF uses the cluster as the vehicle for its approach to school improvement; for example, with its program in the two Papua provinces in Indonesia. Like the EDIP, the Papua program works in districts including remote and isolated schools, difficult terrain and a highly disadvantaged population. Papua and West Papua provinces rank last and third-last respectively in the Indonesia Human Development Index and Papua has seven times the national average of children out of school. So the approaches in the two similar contexts are usefully compared.

DFAT's independent evaluation of the Papua program delivered some realism about the limitations of government provision of the cluster as a base for adequate development of teacher skills for learning outcomes. It found that 'model schools' were selected for the convenience of their location rather than for their potential or capacity to train and mentor teachers:

The concept of model school is misleading, being based primarily on geographical factors, not on capacity to lead in education reform. Some of the model schools visited appeared to lack both the facilities and leadership to host teacher development meetings ... [S]election of Master Trainers from teachers, principals, supervisors, education offices, university and LPMP [Lembaga Penjaminan Mutu Pendidikan—Education Quality Assurance Institute] has advantages for sustainability. But, it is problematic if trainers do not have adequate experience in schools and sufficient understanding of pedagogy to provide mentoring support to untrained, low capacity teachers, or if trainers are unable to fulfil the training/mentoring role.¹²⁹

The Papua evaluation concluded with a lesson that echoes the EDIP's rationale for using a more centralised approach to resourcing clusters in a disadvantaged context:

The cluster group model is inappropriate for rural and remote areas (which account for 60–70 per cent of children in Papua): because of access and transport issues ... [I]n none of the rural and remote schools visited by the evaluation was the KKG [Kelompok Kerja Guru—teachers' working group] operating regularly or with minimum effectiveness, and the likelihood of success, even with education office support, is very low.¹³⁰

With assistance from UNICEF, Myanmar is looking at school-based approaches to improve learning achievement in low-skill rural contexts. In Myanmar, since 2011, there has been gradual recognition of the level of proficiency needed for teachers to produce literate and numerate children, as highlighted in DFAT's annual monitoring report:

School-based interventions: Worthwhile but limited scope for influencing major changes

Monitoring visits have identified evidence of more interactive and effective teaching and learning in primary classrooms. We recognise, however, the limitations of this form of program delivery. A 2012 baseline study on classroom practices highlighted how changing the emphasis from choral drills and rote memorisation as key learning strategies remains a major challenge. The United Nations Children's Fund notes that training workshops alone will not be enough for lasting system-wide change. Major policy reforms are needed in teacher education and curriculum.

UNICEF cited in DFAT, *Burma Aid Program Performance Report 2012–13*

DFAT funded the World Bank to assist Myanmar with a baseline assessment of early grade reading ability assessment in 2013–14, which was expected to ‘provide much needed hard evidence on how much children are learning in school to support policy development in all areas and to focus the agenda squarely on real learning outcomes’.¹³¹ This was intended to inform a new multi-year investment for reading improvement and the development of the sector plan.

An alternative to the cluster model

In contrast to Pakistan’s EDIP, the Indonesia ProDEP program focuses on getting a weak system to work. It started in 2014, and is a long-term approach to equipping school leaders for school improvement, working through government systems. ProDEP is being implemented in 250 districts (approximately half of all districts in Indonesia).

Like the Myanmar program, ProDEP is part of a re-orientation of Australia’s support to basic education to respond to quality issues in Indonesian education results. In response to Indonesia’s Program for International Student Assessment results, Indonesia’s Minister of Culture and Primary and Secondary Education publicly described the country’s education as being in a ‘state of emergency’.¹³²

ProDEP provides training on the roles of principals, supervisors and district management in supporting teaching and learning in schools. Training modules (called units of learning) have been trialled through face-to-face implementation in 31 districts. These will eventually be available online nationally. Units of learning include mentoring, coaching, management of the curriculum, quality of study and inclusive education. Training focuses on competency development through an action research modality—technical training followed by implementation back at school level, followed by further feedback-based training. This helps avoid lack of training take-up in work situations.

The ProDEP solution is embedded in government systems. Training is carried out by national and sub-national institutions designed for teacher and curriculum support. It is likely that principal training will be counted in new career-related performance appraisal requirements. Indicators relating to principals’ instructional leadership are included in Indonesia’s new Education Strategic Plan, 2015–19. This potential solution to principals’ know-how is being supported by other areas of the Australia – Indonesia Education Partnership. The MoE has been assisted to develop new regulations for recruiting supervisors to play a key role in principals’ training through ProDEP.

Until ProDEP, Indonesia did not have a comprehensive professional development system for education personnel. This makes ProDEP potentially a highly strategic intervention to support teacher development in schools in a country with more than a quarter of a million principals.

ProDEP is still incomplete as a system. DFAT's annual partnership performance report (2014) identified these challenges to effectiveness:

- > need for district funding of an implementation system, including school visits
- > lack of training institutes to train principals (as distinct from teachers)
- > processes by which supervisors are appointed
- > lack of monitoring of supervisors themselves.

The Fiji Access to Quality Education Program 2011–17 is another program refocusing on learning improvement in schools. It uses a service delivery approach to school improvement through school grants and school committees (the second type of approach to quality improvement described in the introduction to this chapter). Originally, grants were mainly directed to the most disadvantaged children, including those with disabilities. Disadvantage continues to be a focus in supplementation of very poor schools.

DFAT's mid-term review of the Access to Quality Education Program in 2012 advocated re-orienting it towards learning improvement. An early reading assessment was suggested to provide a baseline for *longitudinal impact assessment*. While continuing as a school grants modality, by 2014 the program was focused on literacy and numeracy improvement. Its performance indicators included improvements in student performance on Fiji's national assessment of literacy and numeracy at different grade levels.

From program reports it is evident that parts of an internal system for learning improvement are in place, including a strong school focus on classroom assessment and data collection to feed into national systems. However, formal training to strengthen school management and planning remains focused on district, principal and school committee members.

The Access to Quality Education Program aims to improve education quality by providing literacy and numeracy coordinators to mentor teachers in target schools (for example, to help teachers identify problems and develop solutions in school, such as remedial reading for non-readers). This approach—dispensing with systematic teacher training in a highly technical field such as teaching reading—expresses the fullest confidence in the effectiveness of classroom-based instruction supported by mentors. No information is yet available to appraise its effectiveness.

Conclusions: To what extent are DFAT investments consistent with conditions for success for school-based teacher development?

DFAT's investments reflect a work in progress in school-based teacher development, particularly supporting teachers in low-skill, difficult contexts. In this category, more than in others, Australian investments reflect a pattern of program adjustment in response to lessons learned. In the process, programs have identified technical practices and skill sets required for improvement.

Classroom learning is the catchment of all upstream systems and a potential source of practical experience to improve district and national systems, institutions and policies. Effective investment in school-based improvement must therefore involve all levels of service provision; a lesson gradually being addressed.

To sum up the overarching message of this chapter: A good solution in one area has exposed a gap in another, with no single investment representing ‘good practice’ in all dimensions of effective school-based teacher development. Between them, however, the case studies provide comprehensive lessons that are beginning to influence improved school-based investments.

The EDIP case study showed that standard school cluster arrangements do not cater for isolated and remote schools. Quality provision in the EDIP was not institutionalised and has, in fact, been a substitution for cluster and school resources. The program’s success depends almost entirely on the irreplaceable role of the (external) teacher educator. The program intentionally depended on the external expertise and resources of the Aga Khan Foundation, not dissimilar to BRAC’s role in alternative education delivery.

The reviewers of the Papua program also found standard school cluster arrangements inadequate for improving education quality in rural schools. Considering specific needs in the context, the Papua reviewers recommended highly specific teacher and lesson guides to support good instruction given the teaching conditions that teachers face.

The central provision of high-quality technical support in the EDIP was a response to a context where capacity in clusters was too low to provide for need. The Papua case echoed this, suggesting more could be accomplished by developing highly effective master trainers rather than strengthening cluster activity.

In remote and fragile contexts such as Gilgit Baltistan, partnerships between government and high-capacity external service providers may be appropriate on humanitarian grounds. In the absence of government contributions, however, alternative funding sources must be found. This limits the potential for such solutions to create sustainable school-level quality improvements.

While a school-based approach to teacher skilling is not yet in place in the Myanmar program, it implicitly recognises the need for specific technical skills for teachers; priority of literacy and numeracy; and forward planning, using diagnostics from early grades literacy and numeracy assessments.

UNICEF’s approach of supporting schools clustered around a model school seems to have good government ownership and better prospects for sustainability. For example, the Sri Lanka program reported that the Government has formally adopted the child-friendly approach as modelled through the Basic Education Support Program. While more sustainable than the externally-resourced cluster model, this approach is not feasible in low-capacity contexts such as in Gilgit Baltistan in Pakistan.

6. Summary of findings and implications

Introduction

This final chapter summarises the findings of this evaluation and implications for future education programming.

This evaluation appraised the effectiveness of choices and implementation in Australia's teacher development programs to provide lessons for future programming. As indicated in Chapter 1, the guiding propositions for assessing effectiveness concerned whether:

- > programs used models responsive to context
- > choices were consistent with evidence of effective practice.

The key messages relating to these propositions are summarised in this concluding chapter, along with management implications for teacher development assistance throughout the aid programming cycle.

Effective teacher development programming is an emergent process in Australian aid

A striking feature of teacher development programs and components is that they have been most responsive to the international development agenda.¹³³ Driven by this agenda and Australian aid policy priorities, DFAT's contextual analyses in education have focused on performance against the MDGs.

While access and equity have been highly appropriate to Australia's policy focus on disadvantage, this focus has had the unintended effect of assimilating teacher improvement into access-enhancing strategies with insufficient attention paid to teacher policy and management. This has affected the focus and coherence of DFAT's teacher development programming.

Evidence suggests that the teacher development dimension of education quality is a fundamentally important development challenge requiring **specific policy and programming** responses. DFAT programs are starting to re-align around this (Fiji, Indonesia, Kiribati, Laos, Myanmar, Indonesia, the Philippines, Vanuatu).

Promising signs include:

- > Investing in learning assessments and improving information systems to lay the foundation for effective teacher interventions (Laos, Myanmar, Nepal, the Philippines, Vanuatu).
 - » However in some programs, learning assessment and learning improvement indicators have been added into an approach not designed for targeting such outcomes and some without clear mechanisms for improving teacher practice.

- > Differentiating the teacher from other systems and looking at what makes teaching effective for learning.
 - New programs are working closely with teacher institutions to negotiate feasible interventions for good pre-service and good in-service teacher development in the context (BEQUAL, Laos; BEST, the Philippines).

Teacher development programs need to be embedded in education systems

Teacher development to improve learning is an **ambitious agenda requiring concentrated focus** for success. This is only feasible if DFAT obtains policy support and strategic buy-in from partners (at government or institution level) and if teacher development planning realistically responds to all the policies, institutions, systems, stakeholders and levels of jurisdiction concerned with quality and management of teachers. Rather than being one of a number of sectoral activities, teacher development needs to be at the heart of sector-wide programming.

DFAT has had some success in influencing national education policies where political will and capacity has allowed, including potentially ‘game-changing’ ones such as with language of instruction in Myanmar.

Frequently, however, essential contradictions in partner countries’ commitments to improving learning outcomes have not been adequately addressed in policy and policy dialogue. Most DFAT development partner countries do not:

- > invest in teachers’ colleges that can provide effective training
- > allocate budget for teachers’ professional development
- > allocate budget for monitoring professional development and school performance
- > enforce efficient or equitable teacher deployment
- > have any system to provide principals with expertise in school leadership.

Some of these deficiencies, as the *Supporting Teacher Development: Literature Review* points out, are related to fiscal problems.¹³⁴ But not all are. Understanding the barriers to effective teacher development in each context is important. Also important is to ensure the above constituents are in place, because they are essential for a teacher development program to have a long term or large-scale effect.

Most teacher development investments reviewed had a narrow focus on training inputs and outputs. Obtaining a full return on investment, including scale-up and sustainability, requires a comprehensive policy and management approach, including **appropriate attention to sub-national institutions and human resources**. This is attested by programs in Bangladesh, Kiribati, Nepal, the Philippines and Vanuatu. These programs have focused on system outcomes, rather than only operating at the level of training outputs.

Most DFAT programs have partial sustainability strategies, such as:

- > inclusion of teacher quality indicators and strategies in frameworks
- > scaling up through an institution
- > replication at sub-national levels
- > capacity building, including strategic use of scholarships for this purpose, as in ICFP in Timor-Leste.

Most programs acquire some influence over national systems or succeed in school-level innovations, as discussed in Chapter 3. However, most also face the problem of the missing middle (that is, inadequate subnational capacity to translate national improvements into changed practices in schools and, conversely, to ensure that good school-level experiences influence national policy change). This affects the potential sustainability and scale of DFAT's contributions to teacher development.

New solutions are based on recognising that provincial and district officers, district supervisors and principals need to be recruited and trained as **educational professionals** with roles in supporting, mentoring and monitoring teaching and learning. The most radical development along these lines is the Philippines' Rationalisation Plan which grew out of STRIVE, for which all sub-national officials dealing with schools will be educationists.

The Indonesia program's development and enabling of a principals' professional career is another link in a service delivery chain for quality outcomes. At the start of the chain, Bangladesh has recognised the need for a thorough scrutiny of teacher training institutions, including—if not giving primacy to—their capacity to deliver in-service training.

Teacher development needs a sector-wide approach

The entanglement of effective teacher development with so many policy, resourcing and institutional capacity issues indicates the need for **collaborative and coordinated action** from development partners and government. This does not necessarily mean formal sector-wide programming, but it does necessitate some of the mechanisms associated with such programming, like government-development partner forums and donor working groups. The case studies in this evaluation that featured sector-wide approach arrangements provide pointers on their advantages and limitations. Education working groups have been used to good effect to hold governments to reform, for example in Bangladesh on the Each Child Learns pedagogy, in Laos on teacher recruitment, and in Myanmar on language policy.

Australia's experience also shows the constraints of dependence on negotiated action across a wide front of stakeholders for an investment like teacher development. More than most other investments, teacher improvement requires focus on the developing evidence of effect and what is promoting or inhibiting it. That is difficult when the sectoral program is complex and accountabilities are dispersed, as with the Education for All–Fast Track Initiative in Laos. The change from a sector-wide to a bilateral program in Vanuatu enabled a sharper and more responsive focus. The transactional costs of a sector-wide approach in a small system are an added complication.

Programs where policy developments are substantial factors in sustainability and scale require the **government leadership** that sector-wide forums encourage. The other end of the continuum of Australian experience in teacher development is the alternative delivery modality—provision outside government. All three alternative approaches (through CARE in Afghanistan, Save the Children in Pakistan, and BRAC in the Philippines) excelled in program scrutiny and improvement; but as yet there is no compelling evidence of government take-up, sustainability or influence on policy implementation.

These key messages from this evaluation lead to Recommendation 1, which applies equally to all pre-service and in-service investments in teacher development:

Recommendation 1

DFAT should coordinate support for teacher development with government education policy reforms and system-wide improvements and avoid isolated, unsustainable investments. This will require senior DFAT development managers and education program staff to:

- i. understand political, economic and institutional interests—and conflicts of interest—in teacher recruitment, qualifications, deployment, performance management and the impact on children's learning outcomes
- ii. maintain national policy discussion and cooperate with other donors on reforms, for example through sector working groups, policy forums and research on teacher development for improved student learning
- iii. clearly establish enabling policy commitments—especially strong teacher recruitment, qualifications, deployment and performance management—so support for teacher development will lead to changed teaching practices and improved student learning
- iv. identify realistic opportunities for teacher development to improve student learning considering contextual constraints
- v. agree on mutual priorities, responsibilities and resources to meet these commitments.

Teacher development designs need more contextual precision

While Australian programs have been shown throughout this evaluation to be effective at learning lessons and adjusting implementation to context, some recurring problems are problems of design. Some of these are described here.

Realistic timeframes and performance indicators

Allocated timelines were often too short to achieve the ambitious aim of changing teachers' understanding of good practice and capacity to implement it autonomously. A teacher development intervention needs to be long enough for teachers to:

- > obtain knowledge and skills
- > be continuously employed to teach a cohort of students through a defined level of education (for example, early grades)
- > be observed or tested for the change in their knowledge and practices
- > have the learning outcomes of their pupils assessed
 - Kiribati is heeding this lesson in its ongoing development of KEIP
- > indicators of achievement need to be identified at the right level in theories of change for teacher development programming
 - if programs are not long enough for teacher change to be implemented and settle in—say five years—then indicators of achievement are better confined to *demonstrable improvement in teaching* rather than learning outcomes.

Capitalising on different types of teacher development

More attention needs to be paid to the differences between categories of teacher development. Identifying what kind of teacher development a program was engaged in was one of the more challenging tasks of this evaluation. Yet all categories have different systemic relationships and implications, which affect a project's sustainability and scale.

Not recognising these differences may have resulted in programs not taking advantage, in particular, of the significance of **teacher development through in-service qualification**. This form of teacher development has the potential to improve knowledge and practice of working teachers more substantively than other professional development, because it is backed by the authority of an education ministry-endorsed agenda.

Tailoring solutions to particular quality problems

Specific learning issues need specific technical solutions.

One issue is the extent of **low literacy and numeracy** in partner countries. Learning assessment analyses show that teachers in most developing contexts do not have the technical knowledge to teach children how to read or tackle basic mathematical operations. The still-dominant paradigm of teaching for memorisation and rote learning is the polar opposite of what is required for these skills. Technical demands are compounded in commonly-used multi-grade classes, which require differentiated teaching for children at different levels of proficiency.

A second issue is that **language of instruction is often a barrier to learning**. The messages from effective teacher development suggest the need for:

- > ethnic diversity in recruiting teachers
- > strengthening teachers' own knowledge of the language of instruction
- > training in second language teaching methodology.

These are demanding skills for teachers to acquire and have major implications for costs, technical assistance, teacher deployment, and training logistics in partner countries.

Laos, Nepal and the Philippines—countries where ethnic populations have made the issue of language access salient—are path finders to system reforms for improving learning for children in a second language.

A third issue is that teachers may not have the **English language proficiency** needed to facilitate students' learning where English is the language of instruction. This is a major issue in the Pacific, and Vanuatu has the added complication of requiring French language proficiency. Second language training is expensive and proficiency evanescent unless the language is practised. This was an important lesson in Kiribati, where a program without follow-up proved ineffective for improving English language proficiency to the level required.¹³⁵ Development of this skill requires a school-based environment that encourages, monitors and appraises English (or other) language usage as part of professional accountability.

The Kiribati English Language Program experience is a rich source of lessons—positive and negative—on supporting teachers’ language competency.¹³⁶

As Australian programming moves progressively beyond early grades, many teachers’ **lack of basic competencies in mathematics and science** will be salient. Acquiring competence in these areas normally requires the kind of time-span available in pre-service training.

- > The Philippines’ BEST and STRIVE programs have tackled these areas in different training modalities: BEST through the pre-service qualifications model; and STRIVE through teacher professional development.

Finally, Australia has contributed to the inclusion of students with disabilities in the global agenda. However, **inclusion policies**, which most Australian programs sponsor, have not led to adequately developed and appropriate pedagogies even though Australia has accumulated the technical understanding of how to do this. Many Australian programs include an objective of improving access to quality education for students with disabilities: Fiji, Kiribati, Laos, Nepal, Pakistan, PNG, Samoa and Vanuatu. Examples of successful training are:

- > Basic knowledge and awareness-type information to support learners with physical disabilities (part of island and school-based teachers’ professional development in Kiribati).
- > New teachers through specialisations, in particular pre-service institutions (Laos, Samoa).

Disability will be a focus for Nepal’s next sector plan. The orientation of Australia’s volunteer program in the Pacific to expertise for disability support is an invaluable resource for innovative curriculum adaptation that helps mainstream provision for children with disabilities.

This is evidence of the need for specialist knowledge in Australia’s ongoing programs in teacher development.

Using teacher development models appropriately

The case studies highlight the strengths and weaknesses of pre-service and in-service approaches to teacher development in their contexts. Education program managers should carefully consider these issues when developing new concepts and designs.

Programming for **qualification-based teacher development initiatives** needs to pay attention to curriculum, lecturer knowledge, skills and professional and academic status, institutional management, quality assurance and accreditation, resourcing, and relationships with schools and provincial district officials.

DFAT should plan and design investments to facilitate integration of pre-service and in-service training systems, because this is associated with better quality training. TEIs or teachers’ colleges are responsible for in-service qualifications as well as pre-service ones. This potentially provides for an indispensable partnership between ministries and teacher training colleges to supply pre-service training that will have high utility for government and teachers alike.

- > It provides a solution to lecturer unfamiliarity with primary classrooms, a characteristic of most TEIs in the contexts in which DFAT works.
- > It gives staff at TEIs access to skilled classroom practitioners and classrooms to enhance practice teaching in pre-service degrees.
- > It builds closer professional partnerships with staff in schools.
 - Practice schools being developed under PEDP 3 in Bangladesh for its primary diploma of education should be further investigated as effective integrative mechanisms.

- Development of pre-service and school engagements through the practicum under BEQUAL should be tracked in implementation.

The evidence suggests that effective professional development of teacher cohorts has these three essential elements. It needs to be:

1. guided by a teacher development framework specifying the knowledge and competencies teachers are expected to acquire
2. relevant to classroom teaching
3. reinforced in teacher performance management.

Effective professional development requires it to be developed as part of a process that ends in classroom implementation. This is likely when it is undertaken as part of a **teacher management and improvement process** aimed at improving student outcomes. Planning on the basis of teacher requirements (standards-based training) enables roll-out in accordance with system priorities. It also holds teachers and principals accountable, through performance appraisals, for classroom implementation of training.

To result in classroom take-up, training has to be implementable by the teacher. Such training has to be delivered by practitioners that teachers respect. It has to focus on modelled practice and participant interaction with the training. Most importantly, it has to be followed by coaching and mentoring at school level.

- > The roll-out of professional development training to support curriculum reform in KEIP has all these attributes.

After trained teachers, **instructional leaders** are the most important element in students' learning. Teachers' continuous professional development will take place if instructional leaders organise the school around learning improvement. Schools organised to improve learning focus on routines of tracking students' progress through assessments and acting with teachers on diagnostics to improve teaching and learning. Instructional leadership by principals is necessary to power such systems. Recruiting, training and appraising teachers based on professional criteria are also required.

- > ProDEP in Indonesia, attaining policy and system specifications for principals as professionals, has come closest to securing this organisational pre-requisite for improving teaching performance through the school.

Recommendation 2 applies equally to all four categories of teacher development.

Recommendation 2

Considering the difficulty of designing effective, efficient and sustainable teacher development investments, DFAT education program managers should ensure:

- i. an analysis of the nature of students' learning performance that informs choice and type of teacher development investment
- ii. sufficient timeframes to realise expected changes—for example, five to 10 years *minimum* for a major national teacher development program
- iii. clear logic of the relationship between improved student outcomes and proposed teacher development and a strong case outlining that the approach suits the context
- iv. M&E that is adequate and adequately resourced.



A third grade student, Norsup Primary School, Malekula Island, Vanuatu. DFAT supports education projects on the Island. Photo: Connor Ashleigh for DFAT.

Teacher development programs need close monitoring

Measuring outcomes and using evidence

As noted under ‘Limitations’ in Chapter 1, **DFAT had almost no data on student learning outcomes that could be attributed to teacher development investments.** Ten investments included ‘improved learning outcomes/achievements’, ‘improved test scores/exam results’ or ‘improved grade level competency’ in their documented investment-level indicators, but few evaluation and quality reports included such data. In a couple of instances (for example, BEQUAL in Laos), it was too early to report outcomes. In most cases, however, absence of data was not explained and it is not clear whether this was due to:

- > data not being collected
- > data quality problems
- > inadequate capacity to analyse and use the data in outcome reporting
- > negative findings (for example, outcomes short of ambitious expectations or timeframes)
- > other country-specific issues which may have made using the data too difficult or problematic.

More programs should explicitly recognise the value of program monitoring, assessment and evaluation for accumulating evidence of quality and impact. It is easier to argue the case for investing in teachers if teacher education and training is shown to improve student learning outcomes. Evidence of effect is also important to inform sustainability and scale-up. Many programs consistently reported inadequacy of monitoring of implementation, particularly partner monitoring. This can undermine quality of training (as in Laos and PNG), the likelihood of system learning, and incentives for sustaining improved teacher management and support.

By contrast, evidence of impact was collected more purposefully and systematically in programs based on community education provision or private initiatives. This includes: Empowering Education in Afghanistan; EDIP in Pakistan; BRAC Alternative Delivery Model of BEAM-ARMM in the Philippines; and ICFP in Timor-Leste.

Data collected for the Laos Education for All – Fast Track Initiative showed that intended learning outcomes were not achieved. This has influenced a more thoughtful design and more realistic timeframes and indicators in the subsequent investment (BEQUAL).

This evidence suggests that DFAT may benefit from working with more experienced partners who have proven capacity to effectively monitor and evaluate education quality and, more specifically, investments in teacher development.

In Bangladesh, data may be critical for persuading ministries to persevere with difficult and demanding teaching and learning reforms under PEDP 3. Demonstrable improvement is also critical at district, school and community levels, especially with vulnerable reforms such as changes to the language of instruction (Kiribati, Vanuatu) which take time to yield their effect.

This leads to the final recommendation of this evaluation.

Recommendation 3

DFAT should work systematically to improve its M&E of the outcomes of investments in teacher development.

- i. ODE and the Education Section in DFAT should support sector and program managers, as required, to improve data collection, analysis and reporting to the extent possible in each country context (noting varying levels of capacity, resources and willingness for M&E).
- ii. ODE and the Education Section should assist programs in identifying intermediate outcome indicators for teacher effectiveness related to the nature of the development investment and targeted issues in student learning.
- iii. Subject to country-level utility and feasibility, ODE and the Education Section should assist one or two programs to evaluate the effects of teacher development on teacher knowledge, teacher practice and student learning.

Appendix 1: Teacher development investments as categorised* for evaluation

Table 1A: Pre-service qualifications investments (Chapter 2)

Country	Initiative number	Initiative and activity name	Year	Budget (\$m)
Afghanistan	INI277	Malaysia Australia Education Project for Afghanistan	2009–14	12
Laos	INL332 and INK692	Basic Education Quality and Access in Laos	2014–18	70
Pakistan	INJ785	Early Childhood Care and Education in Khyber Pakhtunkhwa	2011–15	18
Papua New Guinea	INJ761	PNG Education Program	2011–16	250
Philippines	INJ223	Basic Education Sector Transformation Program	2010–19	160
Timor-Leste	INK585	Timor-Leste Education Program	2012–16	21
Vanuatu*	INH937 and INK372	Vanuatu Education Road Map and Vanuatu Education Support Program	2008–17	57

Table 1B: Professional development of teacher cohort investments (Chapter 3)

Country	Initiative number	Initiative and activity name	Year	Budget (\$m)
Afghanistan	INJ806	CARE—Empowerment Through Education	2011–15	6
Kiribati*	INI620 and INK501	Kiribati Education Improvement Program Phase I and Phase II	2009–15	43
Nauru	INI950	Nauru Improved Education	2009–15	20
Pakistan	INK420	Pakistan Khyber Pakhtunkhwa Education Sector Program	2012–18	64
Pakistan	INJ786	Education Sector Development Programme in Khyber Pakhtunkhwa	2011–15	8
Philippines*	INF824	Strengthening Implementation of Basic Education in Selected Provinces of the Visayas	2004–11	20
Philippines*	INH946	Strengthening Muslim and Indigenous Peoples Education	1999–2017	200
Philippines*	INH947 and INE272	Basic Education Assistance for Autonomous Region in Muslim Mindanao	2006–14	10
Samoa*	ING971	Samoa National Teacher Development Framework (Ministry of Education, Sports and Culture Strategic Policies and Plan 2006–2015)	2006–14	10

* Investments were categorised according to their main teacher development focus. Investments marked with an * were selected for in-depth analysis due to their potential for lessons for future programming.

Table 1C: In-service qualifications investments (Chapter 4)

Country	Initiative number	Initiative and activity name	Year	Budget (\$m)
Bangladesh*	INJ957 and INK663	Support to Primary Education Development Program and UNICEF Technical Assistance	2011–16	53
Laos*	INJ396	Education for All – Fast Track Initiative	2010–14	23
Nepal	INH602	Nepal School Sector Reform Program	2007–19	39
Tonga	INJ653 and INK888	Tonga Education Support Program (Phase 1 and Phase 2)	2010–16	11

Table 1D: School-based professional development investments (Chapter 5)

Country	Initiative number	Initiative and activity name	Year	Budget (\$m)
Fiji*	INJ515	Access to Quality Education Program	2011–17	50
Indonesia*	INJ648	Education Sector Support Program	2010–16	524
Indonesia	INH436	Papua Education Sector Development	2009–13	8
Myanmar	INK545	Myanmar Basic Education Portfolio	2012–17	23
Pakistan*	INJ061 and INK420	Gilgit Baltistan Education Development and Improvement	2010–15	72
Sri Lanka	INK500	Transforming School Education Project in Sri Lanka	2011–17	49
Timor-Leste	INK585	Timor-Leste Education Program	2012–16	21

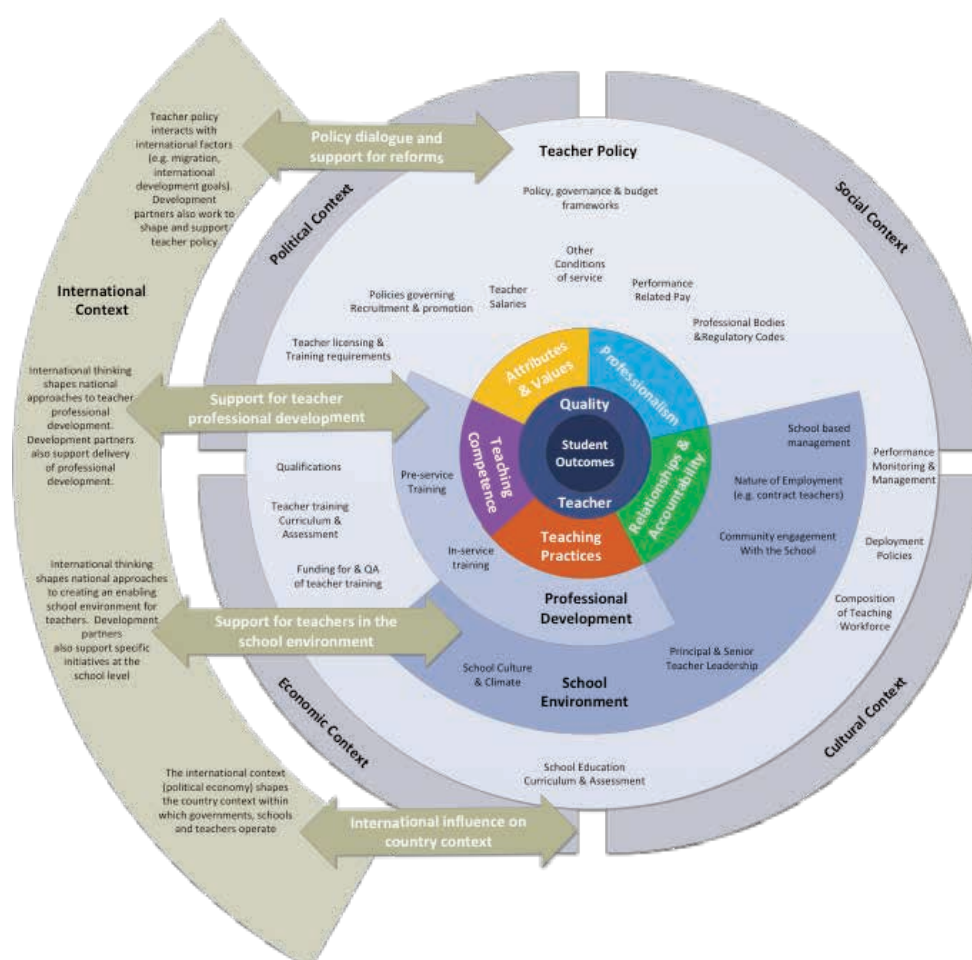
Appendix 2: Additional detail on concepts

The conceptual framework

This evaluation used two frameworks to analyse the fit between DFAT's teacher development investments and international knowledge and experience of what works in supporting 'teacher quality' through 'teacher development'.

The first framework, shown in Figure 2A, was developed during the evaluability assessment* that defined teacher quality and the factors enabling or obstructing it.¹³⁷

Figure 2A: Evaluability study conceptual framework for teacher quality



Source: *Evaluability assessment: The influence of Australian aid on teacher quality*, ODE (Education Resource Facility/ Sayed), 2013, p. 11.

* Evaluability assessment considers the extent to which an activity or program can be evaluated in a reliable and credible fashion, in particular whether objectives are adequately defined and results verifiable (*Glossary of Key Terms in Evaluation and Results Based Management*, OECD, 2010).

The framework identified these domains of a **quality teacher** (that is, what a teacher must have to be able and willing to assist students to learn):

1. *Competence*, which encompasses the knowledge, skills and attitudes teachers acquire through the process of initial and continuing training.
2. *Effective practice*, which refers to teacher practices in the classroom that meet the diverse needs of students for learning.
3. *Teacher professionalism*, which is reflected in commitment to the standards of conduct of the profession and to ongoing professional learning with the aim of developing and exercising professional judgment in carrying out the work of teaching.
4. *Personal attributes and values* (including motivation), which make up the belief that all students can learn and that all are entitled to respect and equitable treatment.
5. *Good relationships with parents and the local community*, which encourage partnerships with the school in students' learning and to acknowledge teachers' accountability for students' progress in school.

The evaluability assessment also identified four levers of teacher quality in development contexts—national teacher policy frameworks, professional development, school environment, and influence and engagement of international agencies. These levers act in concert in effective interventions designed to produce teacher quality.

The second framework used in this evaluation was the review of the literature on effective approaches to teacher development—as distinct from teacher quality—in developing countries. This framework was used to judge the relative effectiveness of Australian aid interventions compare to international experience with teacher development assistance.¹³⁸

Appendix 3: Case study investments, outcomes and indicators

This Appendix describes the case study investments, their overall objectives and their expected outcomes, emphasising components and activities involving teacher development. It shows the basis for judging the extent to which investment-level outcomes were or were not achieved.

Investments are grouped into four tables according to their relevance to each category of teacher development. The tables correspond to the four case study chapters. Investments in each table are listed by country in alphabetical order.

Each table provides:

1. Investment name and main source document for the description.
2. Overall investment goals and expected outcomes.
3. Expected teacher development outcomes and outputs.
4. Teacher development indicators and targets.

Table 3A: Pre-service qualification outcomes and indicators (Chapter 2)

Investment name and source document	Overall goals and end of program outcomes	Expected pre-service outcomes and outputs	Pre-service indicators and targets
Afghanistan: Malaysia Australia Education Project for Afghanistan (MAEPA)	<i>Education enhanced through adoption of new approaches to teacher education and institutional leadership in the Teacher Education Directorate (TED) and Teacher Training Centres (TTCs);</i>	<ul style="list-style-type: none"> > MTTs apply new knowledge and skills in practicum and respective workplace settings. > Education leaders apply leadership skills and management techniques in their respective workplaces. 	<ul style="list-style-type: none"> > Training plans of MTTs demonstrate knowledge of key topics from 11 competency fields. > Training practices of all MTTs show they can use at least 6 MAEPA instructional methods, and can describe 4 others.
	1. Master teacher trainers (MTTs) develop knowledge of new educational methods and skills needed to train others. 2. TTC leaders and central TED staff develop leadership, mentoring and M&E skills necessary to improve the quality of teacher education. 3. Selected female TED and TTC staffs develop skills to undertake leadership roles. 4. A network of MAEPA-trained MTTs and teacher trainers throughout Afghanistan contributes to ongoing quality improvement of education through cascade training.	<ul style="list-style-type: none"> > Female education leaders apply leadership skills and management techniques in their respective workplaces. > TED organises and supports other training events in Kabul and provinces that use MAEPA participants' knowledge and skills. 	<ul style="list-style-type: none"> > All MAEPA education leaders (male and female) develop strategic action plans incorporating critical elements of 5 modules. > Female education leaders' action plans include an approach for gender mainstreaming in their workplace. > % of action plans (male and female) that meet agreed timelines. > % of staff who report positively on leadership and management. > Education leaders, MTTs and teacher trainers deliver training in Kabul and provinces using MAEPA knowledge and skills. > MTT and teacher trainer perceptions of TED support.

Investment name and source document	Overall goals and end of program outcomes	Expected pre-service outcomes and outputs	Pre-service indicators and targets
Laos: Basic Education Quality and Access in Laos (BEQUAL) Schedule 1 (Contract Statement of Requirements) of Implementation contract for Basic Education Quality and Access in Lao PDR (BEQUAL), April 2015	<p><i>More girls and boys, especially those experiencing disadvantage, complete good quality basic education, achieving literacy, numeracy and other relevant life skills:</i></p> <ol style="list-style-type: none"> 1. Ministry of Education and Sports (central, provincial and district levels) effectively and efficiently manages resources for education in Laos. 2. More girls and boys (including with disabilities) from remote and ethnic communities enrol and complete primary education (including World Food Programme school meals as incentive). 3. Primary teacher trainees, including ethnic women, receive modern and pedagogically appropriate pre-service training from qualified teacher trainers (includes pre-service and in-service teacher education components). 4. MoE has more efficient and decentralised system for acquiring renewed teaching and learning resources that are more gender sensitive and inclusive of disadvantaged groups. 5. Teachers and students in remote and disadvantaged communities accommodated in schools and classrooms that are safe, hygienic, inclusive and well-equipped. 	<ul style="list-style-type: none"> > Laos' education ministries, Research Institute of Educational Sciences and 8 TTCs deliver an improved pre-service primary teacher education curriculum and practicum. > Expanded pool of academics, MoE and sports trainers, and pedagogical advisers effectively train and support teachers in up to 66 districts. > More ethnic teachers (especially women) teaching in remote villages. > Primary teachers have increased knowledge and competency. > Closer ties between schools and TTCs. 	<ul style="list-style-type: none"> > Renewed and improved curriculum being implemented, including sufficient teaching and learning materials. > Improved student learning outcomes in target districts and schools.

Investment name and source document	Overall goals and end of program outcomes	Expected pre-service outcomes and outputs	Pre-service indicators and targets
Papua New Guinea: PNG Education Program (teacher component) <i>Australian Support for Basic and Secondary Education in Papua New Guinea (2010–15) Delivery Strategy, DFAT, September 2010 (pp. 29, 31–33, 59–60)</i>	Increasing net enrolment rate at elementary, primary and secondary level: 1. Maximum class size at elementary, primary and lower secondary schools of 45 and upper secondary of 35. 2. Improved performance by students completing Grade 8 and Grade 12. 3. Percentage of primary, elementary and secondary female students increases towards the target of gender equality. 4. Improved management capacity at all levels of the education system.	<ul style="list-style-type: none"> > Increased numbers of qualified teachers. > Increased access to education materials by students and teachers. > Improved teaching staff environment for teachers. > Improved reporting and standards for learning outcomes. 	<ul style="list-style-type: none"> > Number of teachers who have received pre-service and in-service training support. > 2.8 million textbooks and other learning materials procured, delivered to schools and in use by students and teachers by 2015. > 425 primary teacher houses constructed and housing teachers by 2015. > Additional number of inspections carried out by standard officers.

Investment name and source document	Overall goals and end of program outcomes	Expected pre-service outcomes and outputs	Pre-service indicators and targets
Philippines: Basic Education Sector Transformation (BEST) Program <i>Philippines: Basic Education Sector Transformation (BEST) Program: Program Design Document, Final Draft, September 2012</i>	<p><i>Improved quality of education outcomes, and more equitable access of all people at all levels of education in the Philippines:</i></p> <ol style="list-style-type: none"> More children demonstrate improved mastery of curriculum competencies (English, mathematics and science) and difference in learning outcomes for boys and girls reduced in target areas: <ul style="list-style-type: none"> qualified and capable teachers, capable leaders and managers, international standard curriculum and assessment, appropriate and accessible teaching and learning materials. More girls and boys participate and complete a basic education in target areas: <ul style="list-style-type: none"> location and quality of facilities meet expected standards, economically disadvantaged children can afford to attend, context-based learning enables all children to complete basic education. 	<ul style="list-style-type: none"> Teachers better qualified and capable of delivering curriculum. TEI curriculum and delivery align with Kindergarten to Grade 12 requirements. Higher education reform agenda for teacher education developed. Capacity of National Centre for Teacher Education and College of Teacher Education improved. Mechanisms for licensing new teachers strengthened. 	<ul style="list-style-type: none"> Number of pre-service teacher scholarships awarded per year. Reform agenda implemented, including revised accreditation process. Annual improvement in passing rates and Licensure Examination for Teachers' scores.

Investment name and source document	Overall goals and end of program outcomes	Expected pre-service outcomes and outputs	Pre-service indicators and targets
Vanuatu: Vanuatu Education Road Map (VERM) and Vanuatu Education Support Program (VESP) and Vanuatu Institute of Teacher Education (VITE)	<p><i>Improved education quality, equitable access and a well-managed education system:</i></p> <ol style="list-style-type: none"> 1. Literacy and numeracy levels of children in early years of education reach national standards. 2. All girls and boys (including those with disabilities) able to access school. 3. More children enrol in primary school. 4. Children stay at primary school for longer (without repeating) from Kindergarten to Grade 6. 5. MoE management at all levels implements policies in key outcome areas. 	<p>Teachers qualified, capable and in attendance:</p> <ul style="list-style-type: none"> > teachers competently teach curriculum, including mother tongue and multi-grade teaching > principals support teachers with pedagogical leadership > zone curriculum advisers provide follow-up training > VITE well-managed and delivers high-quality teacher training > Director Education Services, and Teachers Service Commission, effectively support and manage teachers > school committees and communities engaged in education. 	<ul style="list-style-type: none"> > Proportion of primary teachers who are certified (grades 1 to 6).
<i>Vanuatu Education Support Program Design Document, 2012</i>			

Table 3B: Professional development for teacher cohorts outcomes and indicators (Chapter 3)

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Afghanistan: Empowerment through Education Afghanistan (EEA) Project (2011–15) EEA Interim Report for DFAT (January to June 2014), CARE, 2014	<p><i>School-aged girls and boys in remote and rural communities in Afghanistan's Khost, Parwan and Kapisa provinces have greater access to quality basic education, resulting in:</i></p> <ol style="list-style-type: none"> 1. Improved quality of and access to—where government does not have coverage—basic CBE with an emphasis on empowering girls. 2. Girls' leadership skills built by facilitating opportunities for them to engage in decision-making structures and social support structures. 3. Strengthened networks and collaboration with all key stakeholders (community, MoE, civil society and relevant peer organisations) to advocate for the rights of children and girls. 4. Improved knowledge and attitudes on individual and environmental hygiene, as well as access to quality health care information among key project participants in Kapisa Province. 	<ol style="list-style-type: none"> 1. CBE classes supported at these levels: <ul style="list-style-type: none"> – primary – lower secondary – early childhood care and development. 2. Girls' leadership skills built through engaging in decision-making and social support structures: <ul style="list-style-type: none"> – peer groups and meetings – para-professional training for students – human rights awareness raising for women and girls – student girls active in VECs. 3. Strengthened networks and collaboration among key stakeholders to advocate for the rights of children and girls: <ul style="list-style-type: none"> – clusters established in Parwan, Kapisa and Khost provinces – MoE teachers trained (male and female) – provincial and district coordination meetings between VECs and MoE officials – CARE and MoE joint monitoring visits. 	<ul style="list-style-type: none"> > Number of CBE classes and students supported by CARE (male and female). > Number of CBE teachers supported by CARE (male and female). > Number of provinces and districts with CBE (primary, junior secondary and ECE). > Number of libraries established. > Number of VECs mobilised (male and female). > Number of VEC members trained (male and female). > Number of VEC events. > Number of VEC participants (male and female, teachers, students, MoE staff, community members and parents). > Number of CBE classes with new infrastructure (including refurbishment, latrines and potable water). > % teachers demonstrating improved knowledge and teaching methods in classroom. > Number of classes with new text books and materials. > CBE policy and handover of libraries and laboratories. > Number of peer groups established, number of members (male and female) and number of meetings.

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Afghanistan: (continued):			<ul style="list-style-type: none"> > Number of male and female students trained and informed. > Number of female student members, and their activity, in VECs. > % increase in girls' enrolment. > Number of clusters established in each province. > Number of male and female MoE teachers trained (hub teachers, head masters, principals). > Number and composition of coordination meetings. > Number of joint monitoring visits.
Kiribati: Kiribati Education Improvement Program (phases I, II and III) <i>KEIP Evaluation Report, DFAT, 2014</i>	<p>By 2020 all Kiribati children achieve functional literacy and numeracy after six years of basic education (years 1 to 6) through:</p> <ol style="list-style-type: none"> Improved teaching and learning for all children in years 1 to 6 (curriculum, teacher capacity, learning environments and school-community partnerships). Improved governance and management of the education system (including Teacher Professional Development Framework). 	<p>Improved education quality through:</p> <ol style="list-style-type: none"> Improved classroom teaching and learning: <ul style="list-style-type: none"> – high-quality curriculum and materials – rehabilitated classrooms conducive to learning – committed and competent teachers. Improved education system governance and management. Strong sector policy, planning and monitoring: <ul style="list-style-type: none"> – effective and enabling legislation and regulations – consolidated community partnerships – strong support services. 	<ul style="list-style-type: none"> > All children have improved learning outcomes regardless of gender, geographic location, economic status or disability. > All i-Kiribati teachers have improved English language skills and are competent and confident in teaching their subjects in English as required by Government of Kiribati policy.

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Pakistan: Early Childhood Care and Education in Khyber Pakhtunkhwa (KPK) (2011–15) <i>Independent Evaluation for Early Childhood Care and Education in Khyber Pakhtunkhwa (ECCE-KP), 2014</i>	<p><i>Improve educational outcomes and access for children in government schools by increasing opportunities for learning and development and improving transitions into primary school:</i></p> <ol style="list-style-type: none"> Children well prepared for school success through enhanced access to quality gender-sensitive ECCE. Children have improved learning outcomes (literacy and numeracy) through improved pre-primary (Katchi), Grade 1 and Grade 2 teaching pedagogy. Sustainable and institutionalised model in place for pre-service and in-service teacher training. Parents and community members have enhanced capacity and knowledge of ECCE, founded on strong home-school partnerships. District and provincial government officials provide effective support to teachers and ECCE classrooms. Evidence used to successfully advocate and influence policy on ECCE teaching and learning. 	<p>Increased number of boys and girls:</p> <ul style="list-style-type: none"> > have access to quality ECCE opportunities > enrol in Grade 1, ready for school > complete Grade 1 successfully > attain independent reading skills for lifelong learning. <p>1. Enhanced access to quality gender-sensitive ECCE:</p> <ul style="list-style-type: none"> – improved learning environments in refurbished classrooms – community-based ECCE classrooms established and equipped, where children have no access to public primary schools, and communities organised to effectively implement and manage these classrooms. <p>2. Better learning outcomes through improved pre-primary (Katchi), Grade 1 and Grade 2 teaching pedagogy:</p> <ul style="list-style-type: none"> – initial training in ECCE, emergent literacy and numeracy, and hands-on learning and teaching provided to male and female pre-primary, Grade 1 and Grade 2 teachers and officials – adequate teaching and learning materials provided for all ECCE classrooms, including materials in local and mother tongue (Pushto) and Urdu (national language) – teachers continuously trained in ECCE and effective literacy instruction – head teachers trained in classroom supervision and monitoring 	<p><i>Goal and headline indicators:</i></p> <ul style="list-style-type: none"> > % of children benefiting from ECCE pre-primary experiences, disaggregated by gender (before start of project and each year of project); end-of-project target is 60 000 children to benefit > % of children enrolling in Grade 1, disaggregated by gender > % of children being promoted to Grade 2, disaggregated by gender > % of children demonstrating good school readiness skills before school entry, disaggregated by gender > % of children with improved reading assessment scores from baseline levels. <p><i>Objective-level indicators:</i></p> <p>Objective 1</p> <ul style="list-style-type: none"> > At least 75% of ECCE classrooms meet four principles for quality early learning environments. > 80 community learning workers trained. > ECCE materials and training modules developed and implemented in communities' local languages. > 30 community ECCE classrooms established and functioning effectively. > 1600 teachers and 40 officials trained in ECCE. > teaching and learning materials in Pushto and Urdu provinces provided to 400 classrooms.

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Pakistan (continued):		<ul style="list-style-type: none"> – School Management Committee and trained school staff continuously improve learning environment for Katchi, Grade 1 and Grade 2 – reading buddies established—pairing 1st and 2nd grade students with older students – school libraries and book banks established with appropriate reading materials – school welcoming and orientation days organised. <p>3. Sustainable and institutionalised model in place for pre- and in-service teacher training.</p> <ul style="list-style-type: none"> – teacher training institutions supported – pre-service and in-service training curricula for Katchi, ECCE, Grade 1 to Grade 3 teachers developed in collaboration with teacher training institutions, and curricula successfully integrated into selected TEIs – capacity building workshops for TEIs in Khyber Pakhtunkhwa ensured – sustained professional development for project teachers and officials. 	<p>Objective 2</p> <ul style="list-style-type: none"> > At least 400 Grade 1 and Grade 2 teachers trained in ECCE and literacy instruction. > At least 400 primary school administrators trained in literacy instruction. > At least 50% of teachers effectively using active learning tools and/or methods. > At least 400 head teachers trained in effective monitoring and supervision and in setting up teacher-to-teacher support networks. > At least 1 supervisory visit per month conducted and guidance provided to teachers and head teachers by Save the Children staff. > At least 50% of project schools achieve key guiding principles for creating quality learning environments. > At least 70% of children benefiting from reading buddies on a regular basis. > At least 15 new local language materials produced for children. > 400 book banks provided to schools. > All grade 1 to 3 students monitored in using community book banks. > At least 60% of schools organise school welcoming days and orientation.

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Pakistan (continued):			
		4. Parents and community members have enhanced capacity and knowledge of ECCE, founded on strong home-school partnerships: <ul style="list-style-type: none">mobile ECCE units set up in remote communities to strengthen community engagementparents' support for children's overall development and readiness for school increased through targeted activities for mothers and fathers at community levelschool Parent Teacher and School Management Committees mobilised to establish strong home-school partnership (3200 members)radio program for parents on local FM station.	Objective 3 <ul style="list-style-type: none">At least 1 capacity building session of at least 2 weeks held for faculty members at TEIs with 3 follow-up sessions.TEIs integrate at least 75% of the Katchi training curriculum (ECCE competencies) and Grade 1 to Grade 3 training curriculum (reading instruction; quality teaching and learning) in pre-service teaching courses.At least 4 main workshops conducted with TEIs.At least 1 follow up seminar and/or discussion sessions with TEIs after capacity building workshop. Objective 4 <ul style="list-style-type: none">8 mobile units set up and at least 2 community engagement initiatives conducted per school month by mobile units.At least 50% of parents of school-going children attend parenting sessions and/or reading circles.At least 70% of parents of school-going children attend parenting workshops, and at least 50% of parents who attend report positive changes in parenting practices and beliefs.At least 70% of mothers participate in community program to strengthen their interest level and/or support.100% of functional School Management Committees and Parent Teacher Committees monitor quality and implement action plans.
	5. District and provincial government officials provide effective support to teachers and ECCE classrooms: <ul style="list-style-type: none">district and provincial government education officials trained in: ECCE; literacy instruction and learning; educational leadership and management; supervision and support for children's learning outcomes.		

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Pakistan (continued):		<p>6. Evidence used to successfully advocate and influence policy on ECCE teaching and learning:</p> <ul style="list-style-type: none"> – rigorous baseline and end line project evaluation conducted capturing children's readiness for school and tier-learning outcomes in early primary grades – targeted classroom-based action research conducted – district seminars and provincial level policy and advocacy dialogues conducted – annual ECCE newsletter published and disseminated widely – evidence from research disseminated widely. 	<ul style="list-style-type: none"> > 400 SMCs and PTCs trained on school and Katchi management and leadership. > At least 2 radio segments targeting parents developed and at least 60% of households regularly tune in. > At least 70% of parents and community members volunteer and participate. <p>Objective 5</p> <ul style="list-style-type: none"> > At least 85% of district and provincial officials participate in: ECCE training activities; literacy instruction training.. <p>Objective 6</p> <ul style="list-style-type: none"> > Rigorous baseline, mid line and end line survey conducted. > Annual assessment of project sites conducted. > At least 12 action research projects successfully completed over the course of the project. > At least two seminars and discussions conducted. > Memorandum of understanding or agreements made related to ECCE issues and transitions to primary school. > 1 ECCE newsletter published and disseminated in every project year. > ECCE best practices well documented and disseminated.

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Philippines: Muslim and Indigenous Peoples Education Program (PRIME) <i>PRIME Quality at Implementation Report, DFAT, 2014</i>	<p><i>Improved quality of, and equity in, basic learning outcomes in disadvantaged Indigenous Peoples (IP) and Muslim communities:</i></p> <ol style="list-style-type: none"> Girls and boys in Muslim and IP communities have better access to appropriate, policy-driven, sustainable and quality education: <ul style="list-style-type: none"> through improved DepED capacity to respond to their specific education needs. IP and Muslim communities have increased demand (participation and engagement) for education services. 	<ul style="list-style-type: none"> > Improved quality and equity of basic education learning outcomes in disadvantaged Muslim and IP communities in 10 regions of the Philippines. > Improved DepED capacity to provide quality education for Muslim and IP girls and boys: <ul style="list-style-type: none"> appropriate and inclusive policies, strategies and plans (at school, divisional, regional and national levels) relevant curriculum, instructional guides and learning materials used in teaching and learning improved DepED attitudes to and perceptions of learning needs of Muslim and IP children. > Increased demand from Muslim and IP communities for education, including through increased engagement in education planning and service delivery, and increased satisfaction with the cultural content of education. 	<ul style="list-style-type: none"> > Appropriate frameworks developed for teaching and learning in 100% IP, majority IP and minority IP contexts. > Teachers trained in Muslim and IP-sensitive pedagogy. > Regional education plans integrate Muslim and IP education needs. > DepED-led policy and guidelines for Muslim and IP education developed through National Conference of Muslim Educators. > Research on Muslim and IP inclusive education used to improve practice. > Muslim and IP focal persons trained on mainstreaming. > Strengthened community-based planning incorporates Muslim and IP needs. > DepED officials have increased awareness of Muslim and IP education needs. > Local stories, evaluation case studies and most significant change reports inform improved implementation.

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
<p>Philippines: Strengthening Implementation of Basic Education in Selected Provinces of the Visayas (STRIVE)</p> <p><i>STRIVE Project Bridging Phase Proposal, DFAT, 2007</i></p> <p><i>STRIVE Independent Completion Report, DFAT, 2011</i></p>	<p><i>Rural living standards in selected provinces of the Visayas improved through better quality of, and access to, basic education:</i></p> <ol style="list-style-type: none"> 1. Strengthened education leadership and management: <ul style="list-style-type: none"> – leadership and management training – National Educators' Academy of the Philippines (NEAP) – school improvement planning – division-level capacity for data-driven school planning – school-community partnerships – training and development on Cluster Lead and Satellite Schools. 2. Enhanced capacity of pre-service and in-service teacher training, particularly for improving teaching of mathematics, science and English: <ul style="list-style-type: none"> – Focus on in-service education and training aligned with emerging mandate of NEAP to coordinate all DepED in-service education and training (and avoid duplication with other education investments in the Philippines). 3. Appropriate science, mathematics, English language and other teaching and learning materials developed and distributed to schools: <ul style="list-style-type: none"> – national policy framework for learning resources – baseline research on access to quality learning resources. 4. DepED assisted to develop alternatives to formal education (for example, livelihood skills) and enhance participation of children and youth (up to age 21) in basic education (Support Options for Basic Education). 	<p>Improved education management and learning support systems for quality basic education, through:</p> <ul style="list-style-type: none"> > functional management support system for school improvement at regional, division and school levels > regional in-service education and training system for quality professional development of teachers and educational leaders > learning resource materials delivery system to provide access to quality teaching and learning resources > basic education quality assurance, M&E. 	<ul style="list-style-type: none"> > Enhanced education policy and planning system, including participatory mechanisms. > School-based management support systems in place (human resources, quality assurance, M&E, support options to basic education, and Enhanced Regional Unified Information System). > Training Development Needs Analysis System for teachers and education leaders. > Strengthened professional development and training system (planning, design, resources, delivery). > Infrastructure and M&E system for regional training and development. > Learning Resource Materials System operational (framework, infrastructure, production, storage, distribution, quality assurance, M&E).

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Samoa: Samoa Education Sector Project II (2006–2015-2014) <i>Education Sector Monitoring and Evaluation Framework, DFAT, 2009</i> <i>Samoa-Education Sector Project II 8th Joint Review Mission (JRM) Joint Review Record, 2013</i>	<p><i>An equitable and effective education system that enhances learning outcomes of young people for further study, work and adult life:</i></p> <ol style="list-style-type: none"> 1. Improved curriculum and assessment systems. 2. Effective teachers. 3. Improved access to quality education. 4. Strengthened Ministry of Education, Sports and Culture (MESC) capacity for education research, evaluation, policy analysis and planning. 5. Strengthened MESC capacity and improved information and communications technology systems to implement and manage education development. 	<ol style="list-style-type: none"> 1. Improved curriculum and assessment systems: <ul style="list-style-type: none"> – new bilingual curriculum (Samoan language, English language, mathematics, science, social studies, arts, physical education and health) and teachers trained in and using it – adequate supply of learning materials and teacher manuals and teachers trained to apply them in the classroom – pilot community partnerships program (home-school literacy, second-chance education, awareness raising) – National Assessment Policy Framework and information technology systems adopted and teachers and school leaders trained to use it – e-learning and multi-media materials and approaches adopted in all secondary schools, and teachers trained (pre-service and in-service) in how to use the new materials and manuals. 2. Effective teachers: <ul style="list-style-type: none"> – NTDF adopted – continuous professional development programs for educators in place, informed by a revised performance appraisal and annual training needs assessment for teachers, principals, school review officers and School Operations Division corporate staff 	<ul style="list-style-type: none"> > 100% functional literacy rates by 2015 and 80% of students demonstrate desirable level of mastery on standardised tests by 2011. > Improved employment rates of high school graduates by 2015. > Curriculum statements for Samoan and English in 2007–08; mathematics, social studies and science in 2008–09; and art and physical education and health in 2009–10. > New, regular national assessment system in place for core subjects by 2011. > Teacher manuals produced within one year of completing each new curriculum statement, and teachers trained. > NTDF adopted (2007). > All teachers routinely participate in pre-service and in-service training (with trained instructors), supported by school review officers and principals in schools. > Majority of primary and secondary school teachers effectively use new instructional methods and student assessments by 2011. > Subject teachers in mathematics, science and agricultural science attend school and majority use effective instructional strategies by 2011. > Retention rates in primary education increase by 10% and transition rate into secondary increases by 5% by 2011.

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Samoa: (continued):		<ul style="list-style-type: none"> – 10 new agriculture, science, food, and textiles, visual arts, and design and technology secondary teachers supplied to meet approved student and teacher – staff ratios, following completion of a two-year fellowship program – 100 new primary teachers trained through fast-track primary teacher training and deployed to primary schools to meet approved student and teacher – staff ratios. 	<ul style="list-style-type: none"> > Significantly increased proportion of students from lowest two income quintiles in secondary schools by 2011. > Significantly increased proportion of students in rural secondary schools by 2011. > All students have complete set of curriculum-specified learning materials. > Teacher houses constructed in rural areas. > Pilot activities, evaluations and research studies inform additional education quality improvements.
		<p>3. Infrastructure for access to quality education:</p> <ul style="list-style-type: none"> – new MESC headquarters – 13 secondary schools renovated – improved school maintenance using revised procedures and resources – school information and communications technology goods and services procured and installed, and MESC staff trained – 4 teacher houses constructed in rural area secondary schools. 	
		<p>4. Strengthened MESC capacity for education research, evaluation, policy analysis and planning:</p> <ul style="list-style-type: none"> – improved national research and evaluation capacity, including information technology for knowledge management – evidence from research and evaluation used to inform policy development and planning (five field studies, including one on low achievement and how to improve, and another on teacher effectiveness and the role of the School Review Officer) 	

Investment name and source document	Overall goals and end of program outcomes	Expected professional development outcomes	Professional development indicators and targets
Samoa: (continued):		<ul style="list-style-type: none"> – Government (PPRD) effectively delivers and evaluates impact of sector policies and initiatives (with limited external assistance). <p>5. Strengthened MESC and ESP II Secretariat capacity and improved information and communications technology systems (SchoolNet) to implement and manage education development:</p> <ul style="list-style-type: none"> – MESC effectively manages ESP II. – Government improves financial and asset management and reporting, – Government uses M&E framework including SchoolNet, to regularly monitor performance targets and improve education management. 	

Table 3C: In-service qualification outcomes and indicators (Chapter 4)

Investment name and source document	Overall goals and end of program outcomes	Expected in-service qualifications outcomes/ outputs	In-service qualifications indicators and targets
Bangladesh: Support to Primary Education Development Program 3 (PEDP 3; includes UNICEF Technical Assistance) <i>Bangladesh Third Primary Education Development Program (PEDP 3) Mid-term Review (2013–14) Final Report, DFAT, 2015</i>	<p><i>An efficient, inclusive and equitable primary education system that delivers effective learning to all Bangladesh's children from pre-primary through Grade 5:</i></p> <p>1. Quality learning and teaching: all children acquire planned learning outcomes and competencies in the classroom.</p> <p>2. Universal access, participation and reduced disparities: all children enrol and complete the primary cycle.</p> <p>3. Decentralisation and organisational effectiveness: core functions at central through district, Upazila (sub-district) and school levels efficiently and satisfactorily performed.</p> <p>4. Effective planning and management: available resources effectively applied, with increased focus on results, leveraging public – private partnerships, and assuring adequate sector finance.</p>	<p>All children acquire expected grade and subject competencies and learning outcomes through:</p> <ul style="list-style-type: none"> > Each Child Learns approach > improved school and classroom assessment > curriculum, textbooks and information and communications technology > teachers upgraded to Diploma in Education. <p>Upazila (sub-district) and school-level planning decentralised:</p> <ul style="list-style-type: none"> > field offices strengthened > school management and governance > school leadership and development. <p>Increased effectiveness of budget allocation:</p> <ul style="list-style-type: none"> > teacher recruitment, promotion and deployment > annual school census > national student assessment. <p>Improved sector planning and results-based management:</p> <ul style="list-style-type: none"> > finance > human resources > M&E > public – private partnerships. 	<ul style="list-style-type: none"> > Mean score for Grade 3, boys and girls (Bangla and mathematics). > Mean score for Grade 5, boys and girls (Bangla and mathematics). > Grade 5 examination pass rate, boys and girls. > Number and type of functions delegated to districts, Upazilas and schools. > Expenditure of block grants (conditional and unconditional) for Upazilas and schools. > Primary completion rate, boys and girls. > Dropout rate by grade. > Number of input years per graduate. > % of schools that meet composite school-level quality indicators.

Investment name and source document	Overall goals and end of program outcomes	Expected in-service qualifications outcomes/ outputs	In-service qualifications indicators and targets
Laos: Education for All – Fast Track Initiative <i>Implementation Completion and Results Report (ICR3286) on grant to the Lao People's Democratic Republic for a Catalytic Fund Education for All-Fast Track Initiative (EFA-FTI) Program, World Bank, February 2015</i>	<p><i>Increased coverage and improved quality of pre-primary and primary education, especially for the most educationally disadvantaged children:</i></p> <ol style="list-style-type: none"> Greatest possible numbers of primary school-aged children in Laos have assured access to minimum standard of education. Schools constructed; grants provided to village education development committees; teaching and learning materials provided; village education development committees, education ministry staff and/or principals and teachers trained and upgraded; children provided with meals; out-of-school children provided with non-formal education. MoE and MoES at central, provincial and local levels have capacity to formulate and implement quality primary education. Central and local MoES staff trained and supplied with equipment and software; Education Management Information System developed to provide accessible, timely, reliable and accurate data; Assessment of Student Learning Outcomes and Early Grade Reading Assessment completed; annual performance assessment and reporting against Education Sector Development Framework; effective and efficient Education Support Development Framework coordination unit. 	<p>Improved quality of pre-primary and primary education for most disadvantaged children (56 target districts):</p> <ul style="list-style-type: none"> > 1500 village education development committees trained > 2500 principals trained > 750 in-service primary teachers upgraded with pre-primary teaching skills > 1500 in-service primary teachers upgraded > 200 pedagogical advisers trained > 64 master trainers trained > 150 mobile teachers trained. 	<ul style="list-style-type: none"> > System in place for learning assessment at primary level (International Development Association rating scale). > Education Quality Standards Framework approved and adopted at school level in all program districts. > Number of additional 'quality trained' primary school teachers (Teacher Upgrade Program). > Number of schools with principals trained on their roles and duties. > Number of villages with mobile teachers.

Investment name and source document	Overall goals and end of program outcomes	Expected in-service qualifications outcomes/ outputs	In-service qualifications indicators and targets
Nepal: School Sector Reform Program <i>SSRP Quality at Implementation Report, DFAT, 2013</i>	<p><i>All citizens of Nepal have the opportunity to become functionally literate and numerate, and to develop the basic life skills and knowledge required to enjoy a productive life:</i></p> <ol style="list-style-type: none"> 1. Equitable access and quality basic, early childhood, secondary, and prevocational education for all children and youth. 2. Enhanced functional literacy and basic competencies of youth and adults. 3. Enhanced teacher qualifications and professional competencies to facilitate learning. 4. Improved performance of MoE service delivery system and capacity to implement critical reforms. 5. Improved education program M&E and impact assessment. 6. Improved efficiency and effectiveness of use of School Sector Reform Program funds. 7. Improved planning, implementation and M&E of school safety. 	<p>Ensure quality basic education (grades 1 to 8) for all children through:</p> <ul style="list-style-type: none"> > improved early childhood education and development > enhanced functional literacy and basic competencies > enhanced teacher qualifications and professional competencies > improved performance of MoE to implement reforms and deliver services. 	<p>Improved basic education completion rate by 25% between 2008–09 and 2013–14.</p> <ul style="list-style-type: none"> > Increased % of students attaining grade-level competency in Grade 8. > Increased % of schools meeting Prioritised Minimum Enabling Conditions (in Education Management Information System Flash reporting).* > Improved qualifications, training and student to teacher ratio for all types of teachers and schools.

* The Flash report provides an annual snapshot of enrolment, pass rates, repetition and survival rates of students at all levels of schooling in Nepal, disaggregated by zone and district. Also includes data on the training status of teachers and how well District Education Officers are supporting schools.

Investment name and source document	Overall goals and end of program outcomes	Expected in-service qualifications outcomes/ outputs	In-service qualifications indicators and targets
Philippines: Basic Education Assistance for Mindanao (BEAM) and BEAM-Autonomous Region of Muslim Mindanao (ARMM) BEAM Final Project Design Document Stage 2 (2004–2008), DFAT, 2004 BEAM Final Activity Completion Report, Annex 1. Achievements Against Logframe, DFAT, 2009 BEAM-ARMM Program Design Document, DFAT, 2011	<p><i>Improved access to and quality of basic education in Southern and Central Mindanao (BEAM Stage 1, 2002–03):</i></p> <ul style="list-style-type: none"> > Improved quality of the management of basic education in regions XI, XII and ARMM. > Improved quality of response to local education needs, particularly those of minority and isolated communities in these regions. <p>1. Improved quality of and access to basic education in Mindanao thereby contributing to the attainment of peace and development in Southern Philippines (BEAM Stage 2, 2004–08):</p> <ul style="list-style-type: none"> – Improved quality of teaching and learning in basic education in Regions XI, XII and ARMM. – All children in these regions can access quality education and develop key life skills. <p>2. Reduced poverty in ARMM and emergence of sustainable peace through targeted investments in education (BEAM-ARMM, 2011–15):</p> <ul style="list-style-type: none"> – Increased access, participation and completion rates in basic education, including through 'alternative delivery model' (pre-school and elementary community learning centres). – Improved learning conditions and achievement in public schools and private Madaris. – Senior secondary students and out-of-school youth have improved livelihood skills and employment opportunities. – DepED's ARMM has improved management systems. 	<p>Basic education managers, planners and evaluators have enhanced capacity to provide quality basic education in regions XI, XII and ARMM, through:</p> <ul style="list-style-type: none"> > trained central, regional, divisional, district and school managers > in-service teacher training system for English, science and mathematics teachers > specific support to teachers of children with special needs > training in Muslim education for teachers of Muslim children in accredited Madaris and government schools > teacher resource materials, teacher-trainer kits and active learning student materials > materials development centres produce high quality, low-cost materials, including for special education > improved quality of teaching and learning for indigenous children through strengthened Institute for Indigenous People's Education, improved content, and support from teacher trainers and mentors. 	<ul style="list-style-type: none"> > 20% improvement in students' 'higher order thinking skills' achievement on Regional Assessment in Mathematics, Science and English. > Action plans guide planning, human resource management, information management, M&E. > 2-day training provided to all district supervisors on instructional leadership and supervision. > Management and professional development programs delivered. > Student-centred training provided through TEIs. > School-based learning groups and cluster school networks established. > School Head and at least one teacher from each school trained as trainers in classroom assessment of student learning. > 3-day training for teachers in special education, peace education and gender inclusion. > 23-day Language Enhancement and Pedagogy training provided to Muslim teachers. > Teacher resource materials, trainer-kits and student resources meet international standards. > 3 materials development centres are meeting project demand for materials. > Institute for Indigenous Peoples Education established and effective.

Table 3D: School-based professional development outcomes and indicators (Chapter 5)

Investment name and source document	Overall goals and end of program outcomes	Expected school-based professional development outcomes and outputs	School-based indicators and targets
<p>Fiji: Access to Quality Education Program (AQEP)</p> <p><i>Access to Quality Education Program, Fiji: Framework for Delivery, DFAT, 2010</i></p>	<p><i>The goal of AQEP is to work with MoE and other relevant stakeholders (including education and disability stakeholders) to improve the ability of children from very poor communities, including those with disabilities, to access a quality school education.</i></p> <p>Long-term outcome—sustainable adoption of AQEP approaches and principles at school, district and MoE level to improve access to and quality for children from poor communities, including children with disabilities.</p>	<p>Improved school facilities and learning environments in 85 disadvantaged schools:</p> <ul style="list-style-type: none"> > rehabilitated classrooms > learning materials > community engagement in school planning. <p>Increased MoE capacity to identify and meet needs in the poorest schools, for improved curriculum delivery, assessment and learning outcomes:</p>	<ul style="list-style-type: none"> > Improved school access, retention and completion rates for the most economically disadvantaged schools (bottom 10% on Disadvantaged Schools Index). > Children with disabilities have improved access to primary schools with inclusive infrastructure, and are enabled to complete mainstream secondary, tertiary and vocational education. > Research used for evidence-informed education planning and management. > MoE delivers improved curriculum and assessment.
<p><i>Mid-term Review of the Access to Quality Education Program, Fiji, DFAT, 2012</i></p>	<p>AQEP end-of-program outcomes:</p> <ol style="list-style-type: none"> 1. Outcome 1—Improved access to education for children from poor communities with a reduction in disparities based on location, disability and gender. 2. Outcome 2—Improved quality of education for children from poor communities with a reduction in disparities based on location, disability and gender. 	<ul style="list-style-type: none"> > Core Education Program Team in MoE > improved systems including Schools Information Management System, Fiji Education Appointments Staffing Database and Disadvantaged Schools Index. 	<ul style="list-style-type: none"> > Curriculum quality and assessment system improvements lead to improved student learning outcomes. > MoE uses strengthened education systems and databases to improve the quality of education for Fiji's poorest schools.

Investment name and source document	Overall goals and end of program outcomes	Expected school-based professional development outcomes and outputs	School-based indicators and targets
Indonesia: Education Sector Support Program <i>Australia's Education Partnership with Indonesia: A contribution to the Government of Indonesia's Education Sector Support Program, Government of Australia (DFAT) and Government of Indonesia (MoNE), 2010</i>	<p><i>Nine years of good quality education for each child through reduced disparities in access, improved quality of teaching and learning, and improved education management and accountability at all levels (national, provincial, district and school):</i></p> <ol style="list-style-type: none"> Expanded equitable access to well-constructed, fully staffed, funded and well-maintained schools. Improved education quality, relevance and governance: <ul style="list-style-type: none"> well-managed, properly financed and accredited nationwide training system for school principals, supervisors and district officials effective and efficient management of human and financial resources for schools and districts, overseen by well-run school management committees no financing or teacher distribution bottlenecks, and increased District Education Office capacity to plan, manage and supervise education resources and learning outcomes incremental reforms to central government (MoNE and Ministry of Religious Affairs) and other national government agencies resolves constraints to education service delivery Increased capability of Ministry of Religious Affairs and other government bodies for Madrasah accreditation and quality assurance consistent with minimum service standards. Evidence-informed delivery and governance of education service delivery, and progress addressing key quality challenges, in particular: teacher quality and distribution; increased participation in early childhood education. 	<p>Improved quality and relevance of primary and junior secondary education (public schools, private schools and Madrasah) in Indonesia through:</p> <ul style="list-style-type: none"> school accreditation by Indonesia's National Board of Accreditation for Schools and Madrasah increased numbers of early childhood, primary and secondary school principals and supervisors completing accredited in-service training increased numbers of key district officials and school supervisors in all districts trained in minimum service standards (that is, minimum expected education inputs and outcomes) for primary and junior secondary education increased annual numbers of provincial and district officials enrolled (for the first time) in specifically-designed and accredited education planning and financial management in-service training. 	<ul style="list-style-type: none"> Relevant government bodies assist 95% of Madrasah to reach accreditation. Increase from 59% accredited schools (2010) to 89% accredited schools (2016). Accredited Madrasah meet minimum service standards (inputs and outcomes). Effective and sustainable (government managed and financed) training system for school principals, supervisors and district officials. Education resources (human and financial) better managed and distributed, with greater community oversight through well-run school management committees. 9500 provincial and district officials trained (in-service) in education planning and financial management. All 293 000 principals, school supervisors and district officials trained (to basic level) in school management, financial management and minimum service standards by 2016. Indonesia's District Education Offices successfully remove bottlenecks in financing and teacher distribution, and improve their oversight and management of resources for improved education outcomes. All 650 000 principals, supervisors, relevant school committee members and district officials are trained in BOS (Indonesia's school funding system) by 2012. Principals and school management committees of 2000 'lagging district' schools constructed with Australian funds trained in 'whole school development' by 2012. Improved research, policy analysis and performance information systems support transparent and accountable reporting on Government of Indonesia education commitments.

Investment name and source document	Overall goals and end of program outcomes	Expected school-based professional development outcomes and outputs	School-based indicators and targets
Pakistan: Gilgit Baltistan- Education Development and Improvement (EDIP) <i>EDIP Mid-term Review Report, DFAT, 2013</i>	<p><i>Enhanced access, equity and quality of education with increased gender parity, participation and sustainability of community interventions in selected clusters of Gilgit Baltistan region of Pakistan:</i></p> <p>1. Enhanced gender parity and access to and equity of education in the targeted clusters of Gilgit-Baltistan:</p> <ul style="list-style-type: none"> – increased and equitable access to education for girls and boys, including out-of-school children – increased access to education, enhanced classroom learning and support environment for disabled students and their families – communities, especially women, enabled to contribute to management of schools – improved access to adequate, comfortable and safe physical facilities and environment. <p>2. Improved quality and relevance of education in targeted clusters of Gilgit Baltistan:</p> <ul style="list-style-type: none"> – increased professionalism and commitment of teachers – improved capacity of head teachers and educational managers to manage and deliver services to schools – enriched quality of teaching. 	<p>Improved quality of education in 150 'clustered' schools in Gilgit-Baltistan, through:</p> <ul style="list-style-type: none"> > creation of 'child friendly' classrooms and communities > setting up learning resource schools and learning resource centres to support each cluster > enhanced classroom environment for disabled students and their families > increased involvement of communities, especially women, in school management > safer and better-equipped schools and classrooms > professional and committed teachers > effective head teachers and education managers > better quality teaching > improved leadership and management by government education officials and project staff > enhanced DepED capacity to formulate policy and implement quality improvements. 	<ul style="list-style-type: none"> > % increase in average (male and female) grade 5, 8 and 10 results in annual examination. > % decrease in casual leave and leave without pay by teachers and head teachers. > % improvement in student and teacher attendance. > % reduction in annual teacher transfer rate. > Facilities upgraded and child friendly, and disability awareness sessions conducted with communities and teachers in target schools. > Clustered schools benefit from materials and professional support from teacher educators and learning resource schools and learning resource centres. > Training needs assessment completed and 21 MTTs trained. > MTTs on-train 525 teachers in disability-inclusive education. > Teachers observed teaching in disability-sensitive and inclusive ways, and children report improved teacher practices (pre-teacher and post-teacher training survey). > % of schools with active, inclusive school management, parent-teacher and other committees (baseline and end-line surveys and data).

Investment name and source document	Overall goals and end of program outcomes	Expected school-based professional development outcomes and outputs	School-based indicators and targets
Pakistan (continued):			
3. DepED in targeted districts of Gigit Baltistan has strengthened capacity for education governance and management:	<ul style="list-style-type: none"> – government officials and project staff have broadened vision and skills – improves institutional linkages and networking promotes and sustains and improved learning environment in the region – Education department enhanced capacity to formulate and implement policy. 		<ul style="list-style-type: none"> > 30 teachers and teacher educators complete Master of Education. > Short courses conducted for teachers (library, school improvement, subject-specific, cluster workshops, orientation, inclusive education). > 50% of 440 certificate-trained teachers demonstrate improved content knowledge and teaching skills in English, Urdu, mathematics and science (post-training evaluations). > % of teachers who develop lesson plans with Specific, Measurable, Achievable, Relevant and Time-bound (SMART) objectives. > % of (60 identified) head teachers who successfully complete advanced diploma in educational leadership and management (3 x 3-week sessions). > % of (60 identified) head teachers who successfully complete Certificate in Education. > 50% trained head teachers develop school development plans with Specific, Measurable, Achievable, Relevant and Time-bound (SMART) targets. > 90 head teachers trained in school development, gender and education and other short courses. > Teacher educators mentor teachers to properly plan and conduct lessons. > % increase in number of schools visited yearly by area supervisor. > Research, policy dialogue and conference conducted to distil EDIP lessons and advocate further improvements.

Appendix 4: Case study source documents

Table 4A: Data sources for case study chapters

Chapter	Country	Data sources
Chapter 2: Pre-service	Vanuatu	<i>Vanuatu Education Road Map, Quality At Implementation Report, (final), DFAT, 2014</i>
		<i>Vanuatu Education Support Program Design, DFAT, 2012</i>
		Thornton, B. <i>Vanuatu Study into Teacher Costs Distribution and Effectiveness, 2011</i>
		Griffiths, M. <i>Vanuatu Institute of Teacher Education: Pre- Service Harmonization, 2012</i>
		<i>Vanuatu Education Support Program, Annual Implementation Plan, DFAT, 2014</i>
		<i>Vanuatu Education Support Program, Aid Quality Check, DFAT, 2015</i>
	Pakistan	<i>Early Childhood Care and Education in Khyber Pakhtunkhwa Pakistan Quality At Implementation Report, DFAT, 2014</i>
		<i>Early Childhood Care and Education in Khyber Pakhtunkhwa, Pakistan, Independent Evaluation Report, DFAT, 2014</i>
	Philippines	<i>Philippines Education Delivery Strategy, DFAT, 2013</i>
		<i>Basic Education Sector Transformation Program Design, DFAT, 2012</i>
		Interview with DFAT staff at post*
	Laos	<i>Basic Education Quality and Access in Laos Investment Design Document, DFAT, 2014</i>
		<i>BEQUAL Situational Review, DFAT, 2014</i>
	Papua New Guinea	<i>PNG Education Program Aid Quality Check, DFAT, 2015</i>
		Interview with DFAT staff at post

* Notes were kept for all interviews. They are referred to in this evaluation according to the name of the transcript—for example, 'Afghanistan, Interview 1, DFAT staff'.

Chapter	Country	Data sources
Chapter 3: Professional Development	Philippines	<i>Strengthening Implementation of Basic Education in Selected Provinces of the Visayas (STRIVE), Activity Completion Report, Department of Education Republic of the Philippines, 2011</i>
		<i>National Competency Based Teacher Standards Teachers' Strengths and Needs Assessment, DepED, the Philippines (undated)</i>
		<i>Baseline Research on the Provision of Quality In-service Teacher Education in the Divisions of Bohol (Region VII) and Northern Samar (Region VIII) Technical Report, STRIVE, DepED, the Philippines, 2007</i>
		<i>Policies and Guidelines on Training and Development Programs and Activities (DO 32, s. 2011), DepED, the Philippines, 31 March 2011</i>
		Interview with DFAT staff
	Samoa	<i>Samoa Education Sector Program II Quality at Implementation Report, DFAT, 2014</i>
		<i>Fifth Joint Review Mission, Samoa Education Sector Project Program II, 23 February to 27 February 2009</i>
		<i>Samoa Education Sector Program II Quality at Implementation Report, DFAT, 2010</i>
		<i>Samoa Education Sector Program II: Eighth Joint Review Mission, 2013</i>
		<i>Report: Progress on the Implementation of the National Teacher Development Framework, Ministry of Education, Sports and Culture (Gatoloai Tili Afamasaga), Government of Samoa, 2013</i>
		Interview with Ministry staff
	Kiribati	<i>Kiribati Education Improvement Program (KEIP) Phase 2 Design Document, DFAT, 2012</i>
		<i>Kiribati Education Improvement Program (KEIP) Independent Evaluation Report, DFAT, 2014</i>
	Afghanistan	<i>Empowerment through Education for Afghanistan, Quality at Entry Report, DFAT, 2011</i>
		<i>Empowerment through Education for Afghanistan, Quality at Entry Report, DFAT, 2012</i>
		<i>Empowerment through Education for Afghanistan, Quality at Entry Report, DFAT, 2013</i>
		<i>Empowerment through Education for Afghanistan, Aid Quality Check, DFAT, 2015</i>
		<i>Empowerment through Education for Afghanistan Project Annual Plan, CARE, 2013.</i>
		<i>Afghanistan Aid Program Performance Report 2012–13, DFAT, 2013</i>

Chapter	Country	Data sources
Chapter 4: In-service qualification	Laos	<i>Basic Education Quality and Access in Laos Investment Design Document (situational analysis)</i> , DFAT, 2014
		<i>Education for All – Fast Track Initiative, Quality At Implementation Report</i> , DFAT, 2014
		<i>Education for All – Fast Track Initiative, Final Aid Quality Check</i> , DFAT, 2015
		<i>Education Sector Development Plan Review and Update, Final Report</i> , Ministry of Education and Sports, Laos, 2014
		<i>Education for All – Fast Track Initiative Program (Grant Number TF 097384, TF 099625), First Draft Implementation Completion Report on activities August 2010–31 August 2014</i> , Ministry of Education and Sports, Laos, 2014
		<i>Independent Appraiser Education for All – Fast Track Initiative Quality at Entry Report</i> , DFAT, 2011
		<i>Recommendations Report for the Lao Education for All – Fast Track Initiative</i> , Peter Deacon, In-Country Mission (Mid Term Review), 23 September to 6 October 2012
		<i>Implementation Completion and Results Report (ICR3286) on grant to the Lao People’s Democratic Republic for a Catalytic Fund EFA/FTI Program</i> , World Bank, February 2015
		<i>Laos Aid Program Performance Report 2012–13</i> , DFAT, 2013
		<i>Laos Aid Program Performance Report 2013–14</i> , DFAT, 2014
	Bangladesh	<i>Bangladesh Third Primary Education Development Program Mid-term Review</i> , 2013–2014, DFAT, 2015
		<i>Bangladesh Third Primary Education Development Program Quality At Implementation Report</i> , DFAT, 2015
		<i>Bangladesh 2012–13 Aid Program Performance Report</i> , DFAT, 2013
		<i>Each Child Learns Case Study (prepared for Education Section)</i> , DFAT 2014
		<i>Bangladesh Education Sector: An appraisal of basic education (pre-primary and primary with reference to secondary)</i> , Campaign for Popular Education, December 2014

Chapter	Country	Data sources
Chapter 5: School-based professional development	Pakistan	<i>Education Development Improvement Program Annual Narrative Report (July 2010 to June 2011)</i> , Aga Khan Foundation, Pakistan, 2011
		<i>External Mid Term Review Education Development Improvement Program</i> , Aga Khan Foundation (Pakistan), Rafiq Jaffer and Shirin Gul, February 2013
		<i>Education Development Improvement Program Quality At Implementation Report</i> , DFAT,
		<i>Pakistan Aid Program Performance Report 2012–13</i> , DFAT, 2013
		<i>Education Development Improvement Program Aga Khan Foundation: Effectiveness of the Model: Case study</i> , Shirin Gul, 2013
	Indonesia	<i>Australia-Indonesia Education Partnership Quality At Implementation Report</i> , DFAT, 2014
		<i>Australia-Indonesia Education Partnership Aid Quality Check</i> , DFAT, 2015
		<i>Australia-Indonesia Education Partnership, Annual Partnership Performance Report, Final Report, GRM (for DFAT)</i> , 2014
		<i>The Education Sector Analytical and Capacity Development Partnership (ACDP–007) School and Madrasah Principals and Supervisors Competencies Baseline Study, Main Report</i> , ACDP, 2013
		<i>Independent Progress Review of Australia–UNICEF Education Assistance to Papua and Papua Barat</i> , John Fargher and Hetty Cislowski, 2012
	Myanmar	<i>Burma Aid Program Performance Report 2012–13</i> , DFAT, 2013
		<i>Burma Basic Education Program Quality At Implementation Report</i> , DFAT, 2014
	Timor-Leste	<i>Timor-Leste Education Program Aid Quality Check</i> , DFAT, 2015
	Sri Lanka	<i>Sri Lanka Aid Program Performance Report 2012–13</i> , DFAT, 2013

Appendix 5: List of interviews

Country	Initiative(s)	Interview name	Number of interviewees
Afghanistan	INI277—Development Facility for Afghanistan II, Malaysia Australia Education Project for Afghanistan	Interview 1, DFAT Staff	1
Afghanistan	INI277—Development Facility for Afghanistan II, Malaysia Australia Education Project for Afghanistan	Interview 2, Program Staff	1
Bangladesh	INJ957—Support to Bangladesh Third Primary Education Development Program	Interview 1, Partner Government Staff (cancelled)	0
Bangladesh	INJ957—Support to Bangladesh Third Primary Education Development Program	Interview 2, DFAT Staff	1
Bangladesh	INJ957—Support to Bangladesh Third Primary Education Development Program	Interview 3, Program Staff	1
Fiji	INJ515—Fiji Access to Quality Education Program	Interview 1, DFAT Staff	1
Fiji	INJ515—Fiji Access to Quality Education Program	Interview 2, Partner Government Staff	1
Fiji	INJ515—Fiji Access to Quality Education Program	Interview 3, Program Staff	1
Indonesia	INJ648—Professional Development for Education Personnel	Interview 1, Professional Development for Education Personnel Program Staff	3
Indonesia	INJ648—Professional Development for Education Personnel	Interview 1, Analytic and Capacity Development Partnership Program Staff	1
Indonesia	Analytic and Capacity Development Partnership	Interview 2, ProDEP Program Staff	1
Kiribati	INI620—Kiribati Education Improvement Program Phase II	Interview 1, DFAT Staff	1
Kiribati	INI620—Kiribati Education Improvement Program Phase II	Interview 2, Program Staff	1
Kiribati	INI620—Kiribati Education Improvement Program Phase II	Interview 3, DFAT Staff	1
Kiribati	INI620—Kiribati Education Improvement Program Phase II	Interview 4, Partner Government Staff	1

Country	Initiative(s)	Interview name	Number of interviewees
Kiribati	INI620—Kiribati Education Improvement Program Phase II	Interview 5, Partner Government Staff	1
Laos	INJ396—Laos Australia Basic Education Project	Interview 1, Partner Government Staff	2
Laos	INJ396—Laos Australia Basic Education Project	Interview 2A, Program Staff	1
Laos	INJ396—Laos Australia Basic Education Project	Interview 2B, Program Staff	1
Laos	INJ396—Laos Australia Basic Education Project	Interview 3, DFAT Program Staff	6
Nauru	INI950—Nauru Improved Education	Interview 1, Partner Government Staff	1
Nauru	INI950—Nauru Improved Education	Interview 2, DFAT Staff	1
Pakistan	INJ061—Gilgit Baltistan Education Development Improvement Program	Interview 1, Evaluator	1
Pakistan	INJ061—Gilgit Baltistan Education Development Improvement Program	Interview 2, Partner Government Staff	1
Pakistan	INJ061—Gilgit Baltistan Education Development Improvement Program	Interview 3, Program Staff	1
Papua New Guinea	INI761—PNG Education Program	Interview 1, Partner Government Staff	1
Papua New Guinea	INI761—PNG Education Program	Interview 1, DFAT Staff	1
Philippines	INE272—Basic Education Assistance for Mindanao	Interview 1, DFAT Staff	1
Philippines	INJ223—Basic Education Sector Transformation	Interview 1, Program Staff	1
Philippines	INJ223—Basic Education Sector Transformation	Interview 2, Program Staff	1
Philippines	INF824—Strengthening Implementation of Basic Education in Selected Provinces of the Visayas and INE272—Basic Education Assistance for Mindanao	Interview 1, DFAT Staff	1
Philippines	INF824—Strengthening Implementation of Basic Education in Selected Provinces of the Visayas and INE272—Basic Education Assistance for Mindanao	Interview 2, Program Staff	1
Philippines	INF824—Strengthening Implementation of Basic Education in Selected Provinces of the Visayas and INE272—Basic Education Assistance for Mindanao	Interview 3, DFAT Staff	1

Country	Initiative(s)	Interview name	Number of interviewees
Philippines	INF824—Strengthening Implementation of Basic Education in Selected Provinces of the Visayas and INE272—Basic Education Assistance for Mindanao	Interview 4, Partner Government Staff	1
Samoa	ING791—Samoa National Teacher Development Framework	Interview 1, Program Staff	1
Samoa	ING791— Samoa National Teacher Development Framework	Interview 2, Partner Government Staff	1
Samoa	ING791—Samoa National Teacher Development Framework	Interview 3, Partner Government Staff	1
Timor-Leste	INK585—Timor-Leste Education Program	Interview 1, Program Staff	1
Timor-Leste	INK585—Timor-Leste Education Program	Interview 2, Partner Donor Staff	1
Total interviewees			46

References: Bibliography

- K Akyeampong, K Lussier, J Pryor & J Westbrook, 2013. 'Improving teaching and learning of basic maths and reading in Africa: Does teacher preparation count?', *International Journal of Educational Development*. 33(3):272–282.
- B Avalos, 2000. 'Policies for teacher education in developing countries', *International Journal of Educational Research*. 33(5):457–474.
- M Barber & M Mourshed, 2007. *How the world's best-performing schools systems come out on top*. London: McKinsey & Company.
- H Bass, Z Usiskin & G Burrill, 2002. 'Studying classroom teaching as a medium for professional development'. *Proceedings of a US–Japan Workshop*. National Research Council, Washington, DC: National Academy Press.
- S Blömeke, U Suhl, G Kaiser & M Döhrmann, 2012. 'Family background, entry selectivity and opportunities to learn: What matters in primary teacher education? An international comparison of fifteen countries', *Teaching and Teacher Education*. 28(1):44–55.
- S Blömeke, 2012. 'Content, professional preparation, and teaching methods: How diverse is teacher education across countries?', *Comparative Education Review*. 56(4):684–714.
- DJ Boyd, PL Grossman, H Lankford, S Loeb & J Wyckoff, 2009. 'Teacher preparation and student achievement', *Educational Evaluation and Policy Analysis*. 31(4):416–440.
- B Boyle, D While & T Boyle, 2004. 'A longitudinal study of teacher change: what makes professional development effective?', *Curriculum Journal*. 15(1):45–68.
- B Bruns, D Filmer & H Patrinos, 2011. *Making schools work: New evidence on accountability reforms*. Washington, DC: World Bank Publications.
- MC Chang, S Al-Samarrai, AB Ragatz, S Shaeffer, J De Ree & R Stevenson, 2013. *Teacher reform in Indonesia: The role of politics and evidence in policy making*. World Bank Publications.
- L Darling-Hammond, 1998. 'Teacher learning that supports student learning', *Educational Leadership*. 55(5):6–11.
- L Darling-Hammond, 2006. *Powerful teacher education: Lessons from exemplary programs*. San Francisco: Jossey-Bass.
- L Desimone, A Porter, M Garet, K Yoon & B Birman, 2002. 'Effects of professional development on teachers' instruction: Results from a three-year longitudinal study', *Educational Evaluation and Policy Analysis*. 24(2):81–112.
- R Elmore, 2004. *School Reform From the Inside Out: Policy, Practice, and Performance*. Cambridge. Harvard Education Press.

- C Fernandez, 2002. 'Learning from Japanese approaches to professional development the case of lesson study', *Journal of Teacher Education*. 53(5):393–405.
- MJ Feuer, RE Floden, N Chudowsky & J Ahn, 2013. *Evaluation of teacher preparation programs: Purposes, methods, and policy options*. Washington, DC: National Academy of Education.
- M Fullan, 2001. *Leading in a culture of change*. San Francisco: Jossey-Bass.
- A Hargreaves & M Fullan, 2012. *Professional Capital: Transforming Teaching in Every School*. New York: Teachers College Press.
- K Gannicott & E Suliman, 2004. *Education sector report: Vanuatu*. Washington, DC: World Bank.
- MS Garet, AC Porter, L Desimone, B Birman & K Yoon, 2001. 'What makes professional development effective? Results from a national sample of teachers', *American Educational Research Journal*. 38(4):915–945.
- P Glewwe, E Hanushek, S Humpage & R Ravina, 2011. 'School resources and educational outcomes in developing countries: a review of the literature from 1990 to 2010', in P Glewwe (Ed.), *Education policy in developing countries*. 13–64. Chicago: University of Chicago Press.
- P Glewwe & M Kremer, 2006. 'Schools, teachers, and education outcomes in developing countries', in E Hanushek & F Welch (Eds.), *Handbook of the Economics of Education*. vol. 2:945–1017: Elsevier.
- P Grossman & A Schoenfeld, 2005. 'Teaching subject matter', in L Darling-Hammond & J Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco: Jossey-Bass.
- J Hattie, 2013. *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Abingdon: Routledge.
- L Ingvarson, M Meiers & A Beavis, 2005. 'Factors affecting the impact of professional development programs on teachers' knowledge, practice, student outcomes & efficacy', Camberwell: ACER. Retrieved 23 October 2014, from http://research.acer.edu.au/cgi/viewcontent.cgi?article=1000&context=professional_dev&sei-redir=1&referer=http%3A%2F%2Fscholar.google.com.au%2Fscholar%3Fq%3Dingvarson%2Bmeiers%2Bbeavis%2B2005%26btnG%3D%26hl%3Den%26as_sdt%3D0%252C5#search=%22ingvarson%20meiers%20beavis%202005%22
- L Ingvarson & K Rowe, 2008. 'Conceptualising and evaluating teacher quality: Substantive and methodological issues', *Australian Journal of Education*, 52(1):5–35.
- L Ingvarson, J Schwille, M Tatto, G Rowley, R Peck & S Senk, 2013. *An analysis of teacher education context, structure, and quality-assurance arrangements in TEDS-M countries. Findings from the IEA Teacher Education and Development Study in Mathematics*. Amsterdam: International Association for the Evaluation of Educational Achievement.
- A Levine, 2006. *Educating school teachers*. Princeton: Education Schools Project.
- K Lewin, 2002. 'The costs of supply and demand for teacher education: dilemmas for development', *International Journal of Educational Development*. 22(3):221–242.
- K Lewin & J Stuart, 2003. 'Insights into the policy and practice of teacher education in low-income countries: the multi-site Teacher Education Research project', *British Educational Research Journal*. 29(5):691–707.

- C Lewis, 2002. *Lesson study: A handbook of teacher-led instructional change*. Philadelphia: Research for Better Schools.
- C Lewis, R Perry & A Murata, 2006. 'How should research contribute to instructional improvement? The case of lesson study', *Educational Researcher*. 35(3):3–14.
- R Mohammad & B Harlech-Jones, 2008. 'Working as partners for classroom reform', *International Journal of Educational Development*. 28 (5); 534–45.
- G Masters, 2014. *Policy Insights: Is school reform working?* Camberwell: ACER.
- J Metzler & L Woessmann, 2012. 'The impact of teacher subject knowledge on student achievement: evidence from within-teacher within-student variation'. *Journal of Development Economics*. 99(2):486–496.
- B Moon, 2006. *Research analysis: A global overview of current policies and programmes for teachers and teacher education—Prepared for the joint ILO/UNESCO Committee of Experts concerning Teaching Personnel*. Retrieved 30 September 2014, from http://www.ciep.fr/sources/conferences/CD_professionnalisation/bak/pages/docs/pdf_interv/Moon_Bob_en.pdf
- B Moon, 2007. *Research analysis: Attracting, developing and retaining effective teachers: A global overview of current policies and practices*. Retrieved 30 September 2014 from http://www.ineesite.org/uploads/files/resources/Attracting,_developing_and_Keeping_Teachers1.pdf
- M Mourshed, C Chijioke & M Barber, 2010. *How the world's most improved school systems keep getting better*. McKinsey & Company.
- R Murnane & A Ganimian, 2014. *Improving educational outcomes in developing countries: Lessons from rigorous evaluations*. Cambridge: National Bureau of Economic Research.
- National Research Council, 2010. *Preparing teachers: Building evidence for sound policy. Committee on the Study of Teacher Preparation Programs in the United States*. Center for Education. Division of Behavioral and Social Sciences and Education. Washington: The National Academies Press.
- OECD, 2013. Conceptual Framework for Teaching and Learning. Retrieved from <http://www.oecd.org/edu/school/TALIS%202013%20Conceptual%20Framework.pdf>
- OECD, 2005. Teachers matter. Attracting, developing and retaining effective teachers. Retrieved 23 October 2014 from <http://www.oecd.org/education/school/48627229.pdf>
- Pacific Islands Forum Secretariat, 2010. Fast-tracking the training of untrained teachers in the region. Retrieved 20 October 2014, from http://www.forumsec.org/resources/uploads/attachments/documents/2010FEDMM.07_Paper.pdf
- J Pryor, K Akyeampong, J Westbrook & K Lussier, 2012. 'Rethinking teacher preparation and professional development in Africa: An analysis of the curriculum of teacher education in the teaching of early reading and mathematics'. *Curriculum Journal*. 23(4):409–502.
- P Sahlberg, 2011a. *Finnish lessons: What can the world learn from educational change in Finland?* New York: Teachers College Press.
- P Sahlberg, 2011b. 'The Professional educator: Lessons from Finland', *American Educator*. 35(2):34–38.
- Y Sayed, 2013. *Evaluability assessment: The influence of Australian aid on teacher quality*, p. vii. Prepared for ODE, DFAT, Canberra.

- J Schulle, M Dembélé & J Schubert, 2007. 'Global perspectives on teacher learning: Improving policy and practice', *International Institute for Educational Planning (IIEP) UNESCO*. Retrieved 30 September 2014, from <http://files.eric.ed.gov/fulltext/ED496753.pdf>
- T Smith & R Ingersoll, 2004. 'What are the effects of induction and mentoring on beginning teacher turnover?' *American Educational Research Journal*. 41(3):681–714.
- M Schweisfurth, 2011. 'Learner-centred education in developing country contexts: From solution to problem?', *International Journal of Educational Development*. 31(5):425–432.
- M Tatto, J Krajcik & Pippin, 2013. *Variations in teacher preparation evaluation systems: International perspectives*. Retrieved 1 December 2014, from http://naeducation.org/cs/groups/naedsite/documents/webpage/naed_085999.pdf
- H Timperley, 2008. *Teacher professional learning and development*. Brussels: International Academy of Education.
- H Timperley, A Wilson, H Barrar & I Fung, 2007. *Teacher professional learning and development: Best evidence synthesis iteration*. Retrieved 22 October 2014, from <http://www.oecd.org/edu/school/48727127.pdf>
- UNESCO, 2014. *Education For All Global Monitoring Report, Teaching and Learning*.
- UNESCO, 2004. *Education for all: The quality imperative*, Retrieved 22 September 2014, from <http://unesdoc.unesco.org/images/0013/001373/137333e.pdf>
- S Wilson, R Floden & J Ferrini-Mundy, 2001. *Teacher preparation research: Current knowledge, gaps and recommendations*. Retrieved 8 September 2014, from <https://depts.washington.edu/ctpmail/PDFs/TeacherPrep-WFFM-02-2001.pdf>
- World Bank, 2012. *System Approach for Better Education Results (SABER): What matters most in teacher policies? A framework for building a more effective teaching profession*. Washington, DC.

References: End notes

- 1 UNESCO, *Education for All 2000–2015: Achievements and Challenges*, 2015, p. 5.
- 2 UNESCO, *Teaching and Learning: Achieving quality for all*, 2014, p. 37.
- 3 *ibid*, p. 30.
- 4 World Bank, *World Bank Education Sector Strategy 2020, Learning for All*, World Bank, 2012.
- 5 E Hanushek & S Rivkin, 2010; E Hanushek, J Kain, D O'Brien & S Rivkin 2005; J Rockoff 2004; W Sanders & J Rivers 1996, cited in: World Bank, *System Approach for Better Education Results (SABER): What matters most in teacher policies? A framework paper*, 2013, p. 5; OECD, *Teachers matter. Attracting, developing and retaining effective teachers*, 2005 cited in: ODE, *Supporting Teacher Development: Literature Review*, 2015, p. 8.
- 6 ODE, *Supporting Teacher Development: Literature Review*, 2015.
- 7 UNESCO, *EFA Global Monitoring Report: Education for All 2000–2015: Achievements and challenges*, 2015; UNESCO, *EFA Global Monitoring Report: Teaching and Learning: Achieving quality for all*, 2014.
- 8 A Mulkeen, D Chapman, J DeJaeghere & E Leu, 2007. *Recruiting, retraining, and retaining secondary school teachers and head teachers in Sub-Saharan Africa*. World Bank Working Paper no. 99. Washington, DC: The World Bank. [Cited in *Supporting Teacher Development: Literature Review*, p. 24].
- 9 ODE, *Program data analysis of DFAT's education expenditure and review of selected teacher development initiatives*, 2013; ODE (Sayed Yusuf, Education Resource Facility), *Evaluability assessment: The influence of Australian aid on teacher quality*, 2013, p. vii.
- 10 World Bank, *System Approach for Better Education Results (SABER): What matters most in teacher policies? A framework for building a more effective teaching profession*. Washington DC, 2012; *Teacher quality: Evidence Review*, ODE, 2014.
- 11 World Bank, *System Approach for Better Education Results (SABER): What matters most in teacher policies? A framework for building a more effective teaching profession*. Washington DC, 2012.
- 12 ODE, *Supporting Teacher Development: Literature Review*, 2015.
- 13 UNICEF, *Child Friendly Schools Manual*, 2009. http://www.unicef.org/publications/files/Child_Friendly_Schools_Manual_EN_040809.pdf
- 14 M Tatto, H Nielsen, W Cummings, N Kularatna & K Dharmadasa, 'Comparing the effectiveness and costs of different approaches for educating primary school teachers in Sri Lanka', *Teaching and Teacher Education*, 9(1):41–64, 1993. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 15 K Lewin & J Stuart, 'Insights into the policy and practice of teacher education in low-income countries: the multi-site Teacher Education Research project', *British Educational Research Journal*, 29(5):691–707, 2003; B Moon, *Research analysis: Attracting, developing and retaining effective teachers: A global overview of current policies and practices*, 2007. http://www.ineesite.org/uploads/files/resources/Attracting_developing_and_Keeping_Teachers1.pdf [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 16 World Bank, *System Approach for Better Education Results (SABER): What matters most in teacher policies?* Washington, DC, 2012; OECD, *A framework for building a more effective teaching profession*, 2005.
- 17 World Bank, *System Approach for Better Education Results (SABER): What matters most in teacher policies?* Washington, DC, 2012.
- 18 Pacific Heads of Education Systems Meeting, Vanuatu, 20–21 October 2015.
- 19 Global Partnership for Educational Quality, *Strategic Plan 2012–15*. Objective 4: Improve teacher effectiveness by training recruiting and retaining teachers and supporting them to provide a good quality education, pp. 26–27.
- 20 *Vanuatu Education Sector Strategy 2007–2016*, October 2012, p. 14.

- 21 ODE, *Supporting Teacher Development: Literature Review*, 2015, pp. 14–15.
- 22 L Ingvarson & K Rowe, 'Conceptualising and evaluating teacher quality: Substantive and methodological issues'. *Australian Journal of Education*, 52(1):5–35, 2008; A Levine, *Educating school teachers*. Princeton, NJ: Education Schools Project, 2006 [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015]. S Wilson, R Floden & J Ferrini-Mundy, *Teacher preparation research: Current knowledge, gaps and recommendations*, 2001. Retrieved 8 September 2014, from <https://depts.washington.edu/ctpmail/PDFs/TeacherPrep-WFFM-02-2001.pdf>. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 23 M Tatto, H Nielsen, W Cummings, N Kularatna & K Dharmadasa, 1993. Comparing the effectiveness and costs of different approaches for educating primary school teachers in Sri Lanka. *Teaching and Teacher Education*, 9(1):41–64. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 24 Vanuatu Education Support Program (VESP), INK372.
- 25 Philippines: Basic Education Sector Transformation (BEST) INJ223; Laos: Basic Education Quality and Access in Laos (BEQUAL) INK 692; INL 332 & INK 692; Afghanistan: Development Assistance Facility for Afghanistan II: Malaysia Australia Education Project for Afghanistan (MAEPA) INI277; Timor-Leste Education Program—ICFP Catholic Teachers College component, INK585; PNG Education Program 2015 INJ761. Forward reference to these programs in the text will be only to the program name.
- 26 Department of Foreign Affairs and Trade, Canberra 2015. ODE: *Supporting Teacher Development: Literature Review* (Chapter 2: Support to policy reform, pp. 16–32).
- 27 DJ Boyd, PL Grossman, H Lankford, S Loeb & J Wyckoff, 2009. *Teacher preparation and student achievement. Educational Evaluation and Policy Analysis*, 31(4):416–440; MJ Feuer, RE Floden, N Chudowsky & J Ahn, 2013. *Evaluation of teacher preparation programs: Purposes, methods, and policy options*. Washington, DC: National Academy of Education; National Research Council, 2010. *Preparing teachers: Building evidence for sound policy*. Committee on the Study of Teacher Preparation Programs in the United States, Center for Education.¹⁴ Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 28 P Sahlberg, 2011a. *Finnish lessons: What can the world learn from educational change in Finland?* New York: Teachers College Press. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 29 UNESCO, *Education For All Global Monitoring Report: Teaching and Learning*, 2014, p. 40.
- 30 A literature review on teacher attrition in Sub-Saharan Africa also suggested that greater use of local recruitment is among the policy measures likely to reduce voluntary teacher attrition. See: International Task Force on Teachers for EFA, 2010. *Teacher attrition in Sub-Saharan Africa: the neglected dimension of the teacher supply challenge*, p. viii. <http://unesdoc.unesco.org/images/0018/001881/188197e.pdf>
- 31 P Glewwe, E Hanushek, S Humpage & R Ravina, 2011. *School resources and educational outcomes in developing countries: a review of the literature from 1990 to 2010*. In P. Glewwe (Ed.), *Education policy in developing countries*: 13–64. Chicago: University of Chicago Press. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 32 B Moon, *Research analysis: Attracting, developing and retaining effective teachers: A global overview of current policies and practices*, 2007. http://www.ineesite.org/uploads/files/resources/Attracting_developing_and_Keeping_Teachers1.pdf [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 33 M Barber & M Mourshed, 2007. *How the world's best-performing schools systems come out on top*, London: McKinsey & Company; B Moon, 2007. *Research analysis: Attracting, developing and retaining effective teachers: A global overview of current policies and practices*. http://www.ineesite.org/uploads/files/resources/Attracting_developing_and_Keeping_Teachers1.pdf [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 34 Government of Samoa and CC International, *Technical Assistance National Teacher Development Framework Final TA Report*, 2008.
- 35 M Barber & M Mourshed, 2007. *How the world's best-performing schools systems come out on top*, London: McKinsey & Company; B. Moon, 2007. *Research analysis: Attracting, developing and retaining effective teachers: A global overview of current policies and practices*. http://www.ineesite.org/uploads/files/resources/Attracting_developing_and_Keeping_Teachers1.pdf [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 36 MC Chang, S Al-Samarrai, AB Ragatz, S Shaeffer, J De Ree & R Stevenson, 2013. *Teacher reform in Indonesia: The role of politics and evidence in policy making*: World Bank Publications.
- 37 Gannicott, K & Suliman, E, *Education sector report: Vanuatu*. Washington, DC: World Bank, 2004, p. 17; Thornton, B. *Study into Teacher Costs, Distribution and Effectiveness*, 2011. DFAT Vanuatu has clarified that junior secondary teachers are trained to teach two or more subjects, and often do teach more than one subject.

- 38 International Task Force on Teachers for EFA, 2010. *Teacher attrition in Sub-Saharan Africa: the neglected dimension of the teacher supply challenge*. <http://unesdoc.unesco.org/images/0018/001881/188197e.pdf>
- 39 *ibid.*
- 40 Mampane, PM. *The teacher turnover crisis: evidence from South Africa*, Business Education and Accreditation, vol. 4, no. 2, 2012. <http://search.proquest.com/docview/1239542006/fulltext/BFCF9CF0DAFC48AEPQ/19?accountid=48211>
- 41 International Task Force on Teachers for EFA, 2010. *Teacher attrition in Sub-Saharan Africa: the neglected dimension of the teacher supply challenge*, p. viii. <http://unesdoc.unesco.org/images/0018/001881/188197e.pdf>; Mampane, PM *The teacher turnover crisis: evidence from South Africa*, Business Education and Accreditation, vol. 4, no. 2, 2012. <http://search.proquest.com/docview/1239542006/fulltext/BFCF9CF0DAFC48AEPQ/19?accountid=48211>; Ghana National Association of Teachers, 2009, *Teacher attrition in Ghana: results of a questionnaire survey*, http://download.ei-ie.org/Docs/WebDepot/GNAT_2010_TEACHER_ATTRITION_REPORT.pdf; Mpokosa, C. (CfBT Education Trust), Sep 2008, *Managing teachers: the centrality of teacher management to quality education: lessons from developing countries*; Mampane, P.M. *The teacher turnover crisis: evidence from South Africa*, Business Education and Accreditation, vol. 4, no. 2, 2012. <http://search.proquest.com/docview/1239542006/fulltext/BFCF9CF0DAFC48AEPQ/19?accountid=48211>
- 42 M Tatto, J Krajcik & J Pippin, 2013. *Variations in teacher preparation evaluation systems: International perspectives*. Retrieved 1 December, 2014, from http://naeducation.org/cs/groups/naedsite/documents/webpage/naed_085999.pdf [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 43 L Darling-Hammond, 2006. *Powerful teacher education: Lessons from exemplary programs*. San Francisco: Jossey-Bass. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 44 M Tatto, J Schulle, S Senk, L Ingvarson, G Rowley, R Peck & M Reckase, 2012. *Policy, practice, and readiness to teach primary and secondary mathematics in 17 countries: Findings from the IEA Teacher Education and Development Study in Mathematics (TEDS-M)*. Amsterdam, the Netherlands: International Association for the Evaluation of Educational Achievement; J Pryor, K Akyeampong, J Westbrook & K Lussier, 2012. 'Rethinking teacher preparation and professional development in Africa: An analysis of the curriculum of teacher education in the teaching of early reading and mathematics', *Curriculum Journal*, 23(4):409–502. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 45 *Vanuatu Education Sector Strategy 2007–2016, Built on Partnership to Achieve Self-Reliance Through Education* (Incorporating the Ministry of Education Corporate Plan and Medium-Term Expenditure Framework for 2007–2009), December 2006.
- 46 Government of Vanuatu, *Vanuatu Education Road Map/Feuille De Route De L'Education De Vanuatu*, 1 December 2009.
- 47 Government of Vanuatu, *Ministry of Education Annual Report, 2012*, reported the following VANSTA results for 2009: Year 4 Anglophone literacy 23% and numeracy 41%; Year 4 Francophone literacy 23.5% and numeracy 31%. According to the report there was no VANSTA test in 2010, 2011 or 2012 (pp. 19–20).
- 48 Myrna Machuca-Sietta & James A Stevens. *Vanuatu Early Grade Reading Assessment (VanEGRA) Baseline Survey*, World Bank East Asia and the Pacific Education Unit, World Bank, 2010.
- 49 *Vanuatu Education Road Map Quality at Implementation Report*, Final (from AidWorks), Australian Government, DFAT, 2010.
- 50 *Vanuatu Education Sector Strategy 2007–2016 Design Document, Final (15 October)*, Australian Government, DFAT, 2012, p. 13.
- 51 *Aid Program Performance Report 2013–14*, Vanuatu, Australian Government, DFAT, 2014.
- 52 *Vanuatu Education Sector Strategy 2007–2016 Design Document, Final (15 October)*, Australian Government, DFAT, 2012.
- 53 *ibid.*, p. 14.
- 54 L. Bowers, *Malaysia Australia Education Project for Afghanistan (MAEPA) Evaluation Report*, 2014.
- 55 *Development Assistance Facility for Afghanistan III: Malaysia Australia Education Project Completion Report*, Australian Government, DFAT, 2013.
- 56 PNG Education Program, Interview 1, Program staff.
- 57 Timor-Leste Basic Education Program Interview 1, Program staff.
- 58 DFAT, Alola Baucau Report, p. 13.
- 59 UNICEF, 2009. UNICEF Child Friendly Schools Manual. http://www.unicef.org/publications/files/Child_Friendly_Schools_Manual_EN_040809.pdf

- 60 Nepal School Sector Reform Program INI 950.
- 61 2015, *Supporting Teacher Development: Literature Review*, p. 20.
- 62 ODE, 2015, *Supporting Teacher Development, Literature Review*, pp. 20–22.
- 63 W Hawley & L Valli, 2000. Learner-centered professional development. *Phi Delta Kappa Center for Evaluation, Development, and Research*, 27:7–10; L Ingvarson, M Meiers & A Beavis, 2005. Factors affecting the impact of professional development programs on teachers' knowledge, practice, student outcomes and efficacy. Camberwell: ACER. http://research.acer.edu.au/cgi/viewcontent.cgi?article=1000&context=professional_dev. [Cited in *Supporting Teacher Development: Literature Review*, ODE, p. 46].
- 64 R Mohammad and B Harlech-Jones, 2008. Working as partners for classroom reform. *International Journal of Educational Development*, 28 (5); 534–45. [Cited in *Supporting Teacher Development: Literature Review*, ODE.]
- 65 L Ingvarson & E Kleinhenz, 2006. *A standards-guided professional learning system*, Centre for Strategic Education (CSE). Seminar Series, 153:1–20. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015.]
- 66 Nauru Improved Education INI950; Kiribati Education Improvement Program (KEIP, Phases 1 & 2. INI620 & INK 501; Samoa Education Sector Plan II Implementation (NDTF component) ING971; Philippines Strengthening Muslim and Indigenous Peoples' Education (PRIME) INH946; Pakistan Gilgit Baltistan Education Development and Improvement Program (EDIP) INJ061.
- 67 MS Garet, AC Porter, L Desimone, B Birman & K Yoon, 2001. *What makes professional development effective? Results from a national sample of teachers*. American Educational Research Journal, 38(4):915–945. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015.]
- 68 *Philippines Education Delivery Strategy*, Australian Government, DFAT, 2013, pp. 5–7.
- 69 Government of the Philippines (Department of Education). *Basic Education Sector Reform Agenda (2005–2010)*, 2006, pp. 1–6.
- 70 *ibid.* p. 7.
- 71 DFAT. *Strengthening the Implementation of Basic Education in Selected Provinces in the Visayas (STRIVE) Independent Completion Report*, 2011, p. 5.
- 72 DFAT, *Strengthening the Implementation of Basic Education in Selected Provinces in the Visayas (STRIVE), Activity Completion Report*, 2011, p. 7.
- 73 *ibid.*
- 74 DFAT, *Philippine Australia Awards: PAHRODF Story in a Nutshell*, 2013.
- 75 *Afghanistan Aid Program Performance Report*, DFAT, 2012–13.
- 76 DFAT, *Afghanistan Empowerment through Education Program, Quality at Implementation Report*, 2014.
- 77 *ibid.*, p. 2.
- 78 CARE, *Empowerment through Education for Afghanistan (EEA) Interim Report for DFAT*, January to June 2014.
- 79 DFAT, *Empowerment through Education Quality at Implementation Reports*, 2011, 2012 and 2013.
- 80 DFAT, *Empowerment through Education Quality at Implementation Report Final*, 2013.
- 81 Fabia Shah, *Empowerment through Education*, Quality at Entry Report 2010.
- 82 *Pakistan Early Childhood Care and Education in Khyber Pakhtunkhwa* Independent Evaluation, DFAT, 2014.
- 83 DFAT, *Philippines BEAM-ARMM Quality at Implementation Report*, 2012.
- 84 Fabia Shah, 2010. *Empowerment through Education*, Quality at Entry Report 2010.
- 85 K Lewin & J Stuart, 2003. 'Insights into the policy and practice of teacher education in low-income countries: the multi-site Teacher Education Research project', *British Educational Research Journal*, 29(5):691–707; B Moon, 2007. *Research analysis: Attracting, developing and retaining effective teachers: A global overview of current policies and practices*. http://www.ineesite.org/uploads/files/resources/Attracting,_developing_and_Keeping_Teachers1.pdf [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 86 Thornton, B, 2011. *Vanuatu Study into Teacher Costs Distribution and Effectiveness*, p. 35.
- 87 *Supporting Teacher Quality Literature Review*, ODE, 2015, pp. 23–18.
- 88 VSO, 2002. *What makes teachers tick? A policy research report on teachers' motivation in developing countries*. London: Voluntary Service Overseas. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].

- 89 One issue that the Literature Review touches on that is relevant to in-service qualification is the quality of trainers. The lack of definition over who should offer award-based training can result in under-qualified personnel used as trainers. CF. EG Knamiller, 1999. *The effectiveness of teacher resource centre strategy*. http://r4d.dfid.gov.uk/PDF/Outputs/Misc_Education/paper34.pdf
- 90 Education for All – Fast Track Initiative in Laos (EFA–FTI) INJ396; Bangladesh: Support to the Primary Education Development Program 3 (PEDP 3) INJ957.
- 91 C Fernandez & M Yoshida, 2004. *Lesson study: A Japanese approach to improving mathematics teaching and learning*. Mohwah, NJ: Lawrence Erlbaum Associates; L Paine & L Ma, 1993. 'Teachers working together: A dialogue on organizational and cultural perspectives of Chinese teachers'. *International Journal of Educational Research*, 19(8):675–697; J Schwille, M Dembélé & J Schubert, 2007. *Global perspectives on teacher learning: Improving policy and practice*. International Institute for Educational Planning (IIEP) UNESCO. Retrieved from <http://files.eric.ed.gov/fulltext/ED496753.pdf> [Cited in *Supporting Teacher Development: Literature Review, ODE, 2015*].
- 92 B Thornton, 2011. *Vanuatu Study into Teacher Costs Distribution and Effectiveness*, p. 11.
- 93 KS Yoon, T Duncan, SWY Lee, B Scarloss & KL Shapley, 2007. *Reviewing the evidence on how teacher professional development affects student achievement*. Issues & Answers Report. REL 2007-no. 033. Washington, DC: United States Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southwest. Retrieved 17 January 2015, from <http://files.eric.ed.gov/fulltext/ED498548.pdf> [Cited in *Supporting Teacher Development: Literature Review, ODE, 2015*].
- 94 DFAT, *Indonesia Education Sector Support Program Quality at Implementation Report*, 2014; DFAT, *Aid Quality Check*, 2015.
- 95 DFAT, *Samoa Education Sector Program Phase II, Aid Quality Check*, 2015.
- 96 DFAT, *2012–13 Indonesia Aid Program Performance Report*, 2013; DFAT, *Indonesia-Australia Education Partnership Quality at Implementation Report*, 2013.
- 97 Ministry of Planning and Investment (2010) *Lao Expenditure and Consumption Survey 1992–2003, 2007–08: Poverty in Lao PDR 2008*, Department of Statistics.
- 98 Lao Decide information, *Targeting poverty in the Lao PDR: How well do current approaches reach the poor?* Research Evidence for Policy, March 2013. Note that the three main non-Lao Tai groups in Laos include Hmong-Mien, Chine-Tibetan and Mon-Khmer.
- 99 DFAT, *BEQUAL Program Design Document: Situational Review*, 2014.
- 100 World Bank, *Education for All – Fast Track Initiative (EFA-FTI) Program Appraisal Document—PAD*, 2011.
- 101 World Bank, *EFA-FTI Program Appraisal Document(Results Framework)*, 2011.
- 102 *ibid*.
- 103 DFAT, *Laos Aid Program Performance Report 2012–13*, 2013.
- 104 Deacon, P, *Independent Mid-term Review of the EFA-FTI Program*, Laos, 2012.
- 105 DFAT, *BEQUAL program design document: Situational Review*, 2014.
- 106 Deacon, P, *Independent Mid-term Review of the EFA-FTI Program*, Laos, 2012.
- 107 *ibid*.
- 108 LABEP, Interview 3, DFAT staff.
- 109 DFAT, *EFA-FTI Aid Quality Check*, 2015, p. 2.
- 110 LABEP, Interview 2A, Program staff.
- 111 World Bank, *Implementation Completion and Results Report (ICR3286) on grant to the Lao People's Democratic Republic for a Catalytic Fund EFA/FTI Program*, February 2015.
- 112 DFAT, *Bangladesh Support to Primary Education Development Program (PEDP) 3, Aid Quality Check*, 2015.
- 113 DFAT, *Bangladesh Third Primary Education Development Program (PEDP 3) Mid-term Review 2013–14, Final Draft Report*, June 2015.
- 114 *ibid*.
- 115 M Schweisfurth, 2011. 'Learner-centred education in developing country contexts: From solution to problem?' *International Journal of Educational Development*, 31(5):425–432. [Cited in *Supporting Teacher Development: Literature Review, ODE, 2015*].

- 116 L Ingvarson & K Rowe, 2008. 'Conceptualising and evaluating teacher quality: Substantive and methodological issues'. *Australian Journal of Education*, 52(1):5–35. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 117 MS Garet, AC Porter, L Desimone, B Birman & K Yoon, 2001. What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4):915–945; W Hawley & L Valli, 2000. *Learner-centered professional development*. Phi Delta Kappa Center for Evaluation, Development, and Research, 27:7–10, L Ingvarson, M Meiers & A Beavis, 2005. *Factors affecting the impact of professional development programs on teachers' knowledge, practice, student outcomes and efficacy*. Camberwell: ACER. H Timperley, 2008. *Teacher professional learning and development*. Brussels: International Academy of Education [Cited in *Supporting Teacher Development: Literature Review*, ODE, p. 54, 2015].
- 118 B Moon, 2007. Research analysis: 'Attracting, developing and retaining effective teachers: A global overview of current policies and practices'. http://www.ineesite.org/uploads/files/resources/Attracting,_developing_and_Keeping_Teachers1.pdf [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 119 *ibid.*
- 120 M Fullan, 2001. *Leading in a culture of change*. San Francisco: Jossey-Bass.
- 121 J Schwille, M Dembélé & J Schubert, 2007. Global perspectives on teacher learning: Improving policy and practice. *International Institute for Educational Planning (IIEP) UNESCO*. <http://files.eric.ed.gov/fulltext/ED496753.pdf> [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 122 G Masters, 2014. *Policy Insights: Is school reform working?* Camberwell: ACER; G R. Elmore, 2004. *School Reform from the Inside Out: Policy, Practice, and Performance*. Cambridge: Harvard Education Press; M Mourshed, C Chijioke & M Barber, 2010. *How the world's most improved school systems keep getting better*. McKinsey & Company. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 123 T Smith & R Ingersoll, 2004. 'What are the effects of induction and mentoring on beginning teacher turnover?' *American Educational Research Journal*, 41(3):681–714. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 124 C Fernandez, 2002. 'Learning from Japanese approaches to professional development the case of lesson study'. *Journal of Teacher Education*, 53(5):393–405; J Schwille, M Dembélé & J Schubert, 2007. Global perspectives on teacher learning: Improving policy and practice. *International Institute for Educational Planning (IIEP) UNESCO*. <http://files.eric.ed.gov/fulltext/ED496753.pdf> [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].
- 125 As advised by DFAT's Pakistan Development Section by email, 3 November 2015.
- 126 S Gul, *Education Development and Improvement Programme Aga Khan Foundation: Effectiveness of the Learning Resource Schools Model: Case study*, 2013.
- 127 *ibid.*
- 128 R Jaffer & S Gul, 2013. *Education Development and Improvement Program, Aga Khan Foundation Pakistan Mid-Term Review*, 2013.
- 129 J Fargher & H Cisłowski, *Independent Progress Review of Australia-UNICEF Education Assistance to Papua and Papua Barat*, 2012.
- 130 *ibid.*
- 131 DFAT, *Burma Aid Program Performance Report 2012–13*, 2013.
- 132 DFAT, *Australia–Indonesia Education Partnership Annual Partnership Performance Report*, 2014.
- 133 *Supporting Teacher Development: Literature Review*, ODE, 2015. p. 14.
- 134 A Mulkeen, D Chapman, J DeJaeghere & E Leu, 2007. *Recruiting, retraining, and retaining secondary school teachers and head teachers in Sub-Saharan Africa*. World Bank Working Paper no. 99. Washington, DC: The World Bank. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015, p. 24].
- 135 DFAT (Emmott), *Kiribati Education Improvement Program Independent Evaluation Report*, 2014
- 136 *ibid.*
- 137 *Evaluability assessment: The influence of Australian aid on teacher quality*, ODE (Education Resource Facility/ Sayed), 2013.
- 138 *Supporting Teacher Development: Literature Review*, ODE (Australian Council for Education Research/Reid and Kleinhenz), *Supporting Teacher Development: Literature Review*, 2015.
- 139 M Barber & M Mourshed, 2007. *How the world's best-performing schools systems come out on top*, London: McKinsey & Company. [Cited in *Supporting Teacher Development: Literature Review*, ODE, 2015].

