

# EDUCATION ANALYTICS SERVICE: TEACHER DEVELOPMENT MULTI-YEAR STUDIES



Emerging Themes: Challenges and Enablers



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## Executive Summary

The global learning crisis has highlighted the urgent need to improve the quality of education. COVID-19 disruptions have placed even greater focus on the learning improvement agenda, and the need to ensure disadvantaged children are not further left behind. Teacher development, and improving teaching quality, therefore is at the heart of many education systems' policies and programs.

This paper presents some of the key considerations for improving teaching across three countries which are being investigated as part of a multi-year teacher development study series. This study series, commissioned by the Australian Government's Department of Foreign Affairs and Trade (DFAT), involves the investigation of teacher development initiatives in Timor-Leste, Vanuatu and Lao People's Democratic Republic (Laos). The overall aim of each study is to investigate:

*To what extent does the Australian investment produce improved teaching quality and improved student learning?*

In each program, an investment in teacher development is part of the overall strategy to improve student learning. Similarly, each country is introducing a new primary education curriculum in stages, hence the teacher development initiatives are primarily designed to support the implementation of the new curriculum as well as support teachers to adopt a range of new pedagogical approaches embedded in the new curriculum. However, the models of teacher development vary by country. This multi-year and multi-country study therefore enables policymakers, researchers, and stakeholders to gain nuanced insights on the different approaches to teacher development to support future policies to improve teaching practices.

The paper first provides a synopsis of each country context and the DFAT teacher development investment. It then provides an overview of each country study. Each study uses a mixed methods approach, are multi-year, and at different stages. Finally, it discusses four emerging themes that contribute to enabling or constraining the success of the teacher development investments.

**1. Language of instruction:** All three countries have multilingual contexts, but take a different approach to language policy and language of instruction. The study findings so far indicate that language policies and how they are implemented can enable or hinder the quality of the teaching and learning process. Promoting greater parent and community involvement in how the policies are implemented, and providing more resources and training to teachers to effectively teach key literacy skills to students from diverse backgrounds, are strategies that can support learning.

**2. Approach to teacher development:** The policy progress thus far to deepen and facilitate professional learning programs varies in each country. Given the resource-constrained environments, cascade training models have been used to introduce teachers to new curriculum approaches. Furthermore, differentiated and continuous and ongoing teacher development approaches that consider specific teaching and learning challenges at hand are needed to ensure that teacher development support can be tailored to address the diversity in qualifications and experience of teacher workforces.

**3. Embedding teacher development:** Support systems are critical to sustaining and integrating gains from initial teacher development inputs. The quality and availability of institutional structures (such as support from principals and sub-national education officers) to sustain ongoing development of teachers and monitoring of teaching and learning varies across each of the three countries. There needs to be thoughtful consideration as to how best to allocate resources towards ongoing professional learning (for teachers, principals and sub-national education officers) and improve accountability to drive learning improvement agendas.

The Australian Council for Educational Research Ltd

19 Prospect Hill Road

Camberwell VIC 3124

Phone: (03) 9277 5555

ABN 19 004 398 145

[www.acer.org](http://www.acer.org)

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## Introduction

**4. Monitoring teaching quality and student learning:** The experience of designing and implementing these studies highlights the value of investing in rigorous monitoring of teaching and student learning outcomes, both at the systems and classroom level. A robust system of monitoring can help governments understand what is working and not working in a system, and make requisite changes to curricular, teaching, assessment and resourcing to improve learning. Data from a range of sources can provide a more holistic view of teaching quality and student learning. At the classroom level, principals and teachers need the skills to undertake classroom-based assessment to ensure they can meet individual learning needs.

These themes were selected with consideration of the findings to date, and their cross-country applicability and relevance. They are based on emerging findings from the first year of the Vanuatu and Laos studies, and the first and second year of the Timor-Leste study. While each country in this study series is at a different phase in their reform process, and the progress of each study is also at different stages, it is anticipated that the insights from the emerging evidence presented in this paper might usefully inform teacher development policy, programming and research in these and other locations, with linkages to the critical issue of improving student learning outcomes.

A focus on quality education and its role in improving student learning has placed the improvement of teaching at the heart of many education systems' policies and programs. The need for quality education – effective teaching, measurable learning – has only become more acute with the COVID-19 disruptions to education systems across the Indo-Pacific and worldwide.

While there is a relationship between teaching quality and student learning outcomes, the strategies employed to improve teaching in each country can vary in approach and be affected by a range of contextual factors.

This paper presents a snapshot of emerging considerations for improving teaching across three country contexts. These are based on the findings to date from a multi-year teacher development study series initiated by DFAT in response to the

Office of Development Effectiveness' (ODE) 2015 *Investing in Teachers* report, which evaluated Australia's investments in teacher development. A key recommendation from the report was to support a series of multi-year studies on DFAT's teacher development initiatives, providing an opportunity to contribute to the limited empirical evidence in the Indo-Pacific region on outcomes from teacher development investments. An overarching conceptual framework was developed in 2017. The framework clarifies the purpose of the study series, ensures consistency in terminology and methodology, and connects the studies to maximise the learning potential within each and across the studies (Education Analytics Service (EAS), 2017).

These multi-year studies involve the investigation of teacher development initiatives in Timor-Leste, Vanuatu and Lao PDR (Laos). Each country is currently undertaking its own curriculum reform and implementing programs to support teachers to improve teaching quality through adopting new pedagogical approaches. Given each country is at a different phase in their reform processes, and the progress of each study is also at different stages, it is too early in the study series to be definitive about the 'conditions of success' for teacher development investments. However, at this juncture, there are findings emerging from the three studies, which when viewed individually and as a whole, offer useful insights to inform policy, programming and future research.

This paper is structured in four sections. The first section is a synopsis of each country context and DFAT's teacher development investments. The second section provides an overview of each study, including the research questions, methods and data collection tools. The third section highlights and discusses some of the common and different emerging considerations for improving teaching across the three countries. The final section presents ideas regarding how these insights may usefully inform ongoing policy, programming and research considerations in each country, as well as other contexts.



## Investing in teachers in Timor-Leste, Vanuatu and Laos

The global learning crisis and the urgent need for quality education has been highlighted by education stakeholders in recent years (World Bank, 2018), and reflected in Sustainable Development Goal 4 of the *2030 Agenda for Sustainable Development* (United Nations, n.d.). DFAT, like many other donors working in primary and basic education, has at the core of most education for development programs, a goal of improving student learning. The COVID-19 disruptions have made this core focus all the more important, and simultaneously more complex. Improving student learning is the goal of DFAT's education programs in Timor-Leste, Vanuatu and Laos, which are being investigated in this study series:

- **Timor-Leste:** Apoio Lideransa liuhusi Mentoria no Apredizajen (ALMA)
- **Vanuatu:** Vanuatu Education Support Program (VESP)
- **Laos:** Basic Education Quality and Access in Laos Program (BEQUAL).

In each program, an investment in teacher development is part of the overall strategy. Similarly, each country is introducing a new primary education curriculum in stages, hence the teacher development initiatives are primarily designed to support the implementation of the new curriculum as well as support teachers to adopt a range of new pedagogical approaches embedded in the new curriculum.

It is important to recognise, however, that the models of teacher development vary by country. Typically, DFAT's investments in teacher development usually involve either pre-service or in-service education, or a mix of both. For the purposes of this study series, the focus is on in-service teacher professional learning approaches, and therefore only the in-service elements are described below. Pre-service programs are excluded given the time

lag experienced in some country contexts between teachers undertaking pre-service training and teaching in a classroom and additional complexities this poses to attribution (EAS, 2019).

DFAT's education programs in Vanuatu and Laos cover the development of the new curriculum materials, and provide support and funding for the accompanying in-service training programs. Whereas in Timor-Leste, DFAT support focuses on supplementing the education ministry's investment in new curriculum materials and in-service training with follow-up professional learning support.

Each country is also at a different phase of their curriculum rollout, with Timor-Leste most advanced, Laos at the beginning of its staged roll-out, and Vanuatu mid-way.

Table 1 provides a brief overview of the curriculum reform and the DFAT investment in each country.

		Timor-Leste (ALMA)	Vanuatu (VESP)	Laos (BEQUAL)
New curriculum reform	Stage of implementation	Phased rollout for pre-school to Grade 6 is ongoing.	Phased rollout for Kindergarten to Year 6 mid-way.	Phased rollout for Grade 1 to 5 mid-way
	Focus	Introduces new content and pedagogies. Sequenced and scripted lessons for each grade level.	Introduces new content and pedagogies. Implements Vanuatu's National Language Policy which provides the option of using Bislama or vernacular languages in the early grades. Subject content is sequenced for each grade level.	Introduces new content and pedagogies. Subject content is sequenced for each grade level.
	Principles	Promotes new student-centred pedagogies, including holistic learning outcomes.	Promotes teaching practices that support inclusive education (i.e., student-centred learning and local connections), language transition and classroom-based assessment practices.	Promotes teaching practices that support inclusive education (i.e., student-centred learning and localised curriculum), active learning and formative assessment.
Teacher development	Scope	Phased expansion by municipality.	National.	National, with additional support for 32 BEQUAL target districts.
	Type of DFAT investment	Supplements the education ministry's teacher training on the new curriculum with Leaders of Learning program (for school leaders), school-based peer professional learning groups, mentor support, and educational technology.	Implements a series of in-service training modules closely linked to the roll-out of the new curriculum. Design, development and distribution of teaching and learning materials.	Implements in-service training focused on orientation on the new curriculum materials. Design, development and distribution of teaching and learning materials. Additional grants in 32 BEQUAL target districts to support strengthening communities of practice, teacher use of self-access learning, and school-level implementation (e.g. monitoring visits, teacher clusters).

Table 1. Overview of curriculum reform foci and the accompanying DFAT investment in Timor-Leste, Vanuatu and Laos

# Overview of the teacher development study series

The overall aim of each study is to investigate the following overarching question:

*To what extent does the Australian investment produce improved teaching quality and improved student learning?*

Specific questions related to this broad overarching question have been designed for each study, to reflect each unique context. These are presented in Table 2.

	Timor-Leste (ALMA)	Vanuatu (VESP)	Laos (BEQUAL)
<b>Overarching question</b>	To what extent does this aid investment produce improved teaching quality and improved student learning?	To what extent does this aid investment produce improved teaching quality and improved student learning?	To what extent does BEQUAL support improve teaching quality and student literacy in Lao PDR?
<b>Key questions</b>	<ol style="list-style-type: none"> <li>To what extent does the ALMA program support improved teaching quality in Timor-Leste?</li> <li>To what extent does the ALMA program support the effective implementation of Timor-Leste's National Basic Education Curriculum?</li> <li>To what extent does teacher involvement in the ALMA program lead to improved learning outcomes for Timor-Leste students?</li> </ol>	<ol style="list-style-type: none"> <li>To what extent has the investment improved teaching quality in Vanuatu?</li> <li>To what extent has the investment in teacher training and mentoring supported effective implementation of Vanuatu's new curriculum?</li> <li>To what extent have teacher training and support activities led to improved learning outcomes?</li> </ol>	<ol style="list-style-type: none"> <li>To what extent and how does teaching quality change following BEQUAL-supported in-service program?</li> <li>To what extent and how do students' literacy outcomes change following the new curriculum implementation?</li> </ol>

Table 2. Research questions for each country study

Each unique context also means that the commencement and progress of each study has been different. The study in Timor-Leste was the first to commence, and two years of reporting have been completed – Interim Reports 1 and 2 (EAS, 2019; EAS, 2020a). This was followed by the Vanuatu study – Interim Report 1 (EAS, 2020b) – and lastly, Laos – Baseline Report (EAS, 2020c) – both of which have completed their first year of reporting. The staggered ‘on-boarding’ of each country to the study series has provided the study team with an opportunity to learn from and refine each study, highlighting the benefits of a multi-country and multi-year study series. This multi-year feature also acknowledges the complex nature of teacher development and that sustained change in teaching practice takes time, and recognises the scale of the investment from both DFAT and partner governments.

The studies use a mixed methods approach, analysing both quantitative and qualitative data sources. The studies in Timor-Leste and Vanuatu include the use of existing data sources, newly collected data and data planned to be collected by other partners. The Laos study relies on newly collected data. These are outlined in Table 3.

It is important to note that the Laos study differs somewhat as it involves a longitudinal design, following the same schools and cohorts of principals and teachers over the course of the study, offering an opportunity to examine the extent to which changes in teaching quality are developed and sustained over time. It is also designed to investigate pre-intervention (baseline) and post-intervention (2 years and 3 years after the intervention) outcomes.

The studies in Timor-Leste and Vanuatu both commenced after the interventions began and are not longitudinal. They have been designed in line with the preferences of DFAT and education ministry counterparts, to examine implementation across a variety of country contexts over multiple years. The Timor-Leste study examines different municipalities across the phases of the ALMA program implementation, and the Vanuatu study examines implementation by province or island. This approach presents an opportunity to study multiple population groups rather than just one subset, which allows for a wider breadth of analysis.

These approaches provide the advantage of seeing country-wide variations or similarities related to implementation and sustainability of interventions. The inclusion of multiple study sites is particularly beneficial when considering research implications for policy goals as it allows a country-wide understanding of how interventions impact teaching quality and student learning.

Finally, each of the studies benefit from a close partnership between ACER, DFAT at Post and in Canberra, the relevant education ministries, in-country research partners, and development partners, which facilitates quality in the design and sampling processes, data collection, reporting and dissemination.



## Emerging considerations for improving teaching

	Timor-Leste (ALMA)	Vanuatu (VESP)	Laos (BEQUAL)
<b>Quantitative</b>	Existing student assessment data.	Existing and planned student assessment data.	Newly collected survey data from teachers and principals and student assessment data.
<b>Qualitative</b>	Range of school case studies – purposively selected by ALMA phase and municipality each study year.  Individual and group interviews with education stakeholders, classroom observations from 2020/21.	Range of school case studies – purposively selected by province or island each study year.  Interviews and focus group discussions with education stakeholders, classroom observations from 2020/21.	12 school case studies – purposively selected by province for the duration of the study (longitudinal).  Interviews with education stakeholders, classroom observations.
<b>Intended study duration</b> (extended due to COVID-19 impacts)	5 years, with three cycles of data collection.	5 years, with three cycles of data collection.	5 years, with three cycles of data collection.
<b>Reporting</b>	Interim Report 1 Interim Report 2 Final Report	Interim Report 1 Interim Report 2 Final Report	Baseline Report: Pre-intervention Interim Report 1: Two Years Post-Intervention Interim Report 2: Three Years Post-Intervention Final Report
EAS Teacher Development Study Series Final Report			

Table 3. Overview of data collection methods, tools, study duration and reporting for each country study

The conceptual framework for these multi-year studies defines “teacher development” as “a broad concept that relates to teachers improving their professional knowledge, competence, skill and effectiveness” (EAS, 2017, p.12). The conceptual framework acknowledges that each country’s approach to developing teachers is different and each investment’s success is enabled or constrained by unique contextual factors. This range of contextual factors can include culture, governance, policy, economy and social factors. Specific to teacher development, some of these factors can include teacher policy, funding for teacher training or the school environment (EAS, 2017).

As examples of these factors that can affect the outcomes of teacher development interventions, the ODE Investing in Teachers brief (2015b, p.3) highlighted some contextual challenges in the Indo-Pacific region. Extracted from this list are challenges that are relevant to some or all of the three study countries:

- It can be difficult to argue the case for spending on teacher development compared to other development priorities, especially if teacher salaries already consume a large proportion of the education budget.
- School funding and appointment of teachers and principals may be politically or pragmatically driven, not based on need.
- Education policies, including curriculum requirements and expectations of teachers, may be contradictory or evolving.
- Governments may have little control or oversight of teacher education and training institutions.
- Large numbers of untrained teachers may already be working in schools.
- Teaching conditions may be poor, and teachers may be underpaid and undervalued as professionals.

The level of influence that donors such as DFAT have on these issues can fluctuate over time, with changes in partner government leadership and commitment. Notably, these issues are presented as they also intersect with important themes emerging from the three studies.

The next part of this paper highlights some of the emerging considerations for improving teaching, as related to each investment by theme:

- 1. Language of instruction**
- 2. Approach to teacher development**
- 3. Embedding teacher development within a system of support**
- 4. Monitoring teaching quality and student learning.**

These themes were selected with consideration of the findings to date, and their cross-country applicability and relevance. They are not intended to be exhaustive.

Findings from Timor-Leste and Vanuatu reflect themes that have emerged from several years of implementation of the interventions; whereas findings from Laos are baseline and pre-intervention, and therefore point to areas that could enable or constrain the success of the planned interventions.

## Theme 1. Language of instruction

Decisions regarding language policy and language of instruction can be a vexed political issue. All three countries have multilingual contexts. Vanuatu is the highest language density country in the world with over 100 languages and dialects (Francois et al, 2015). Laos has 50 official ethnic groups, with an estimated 84 languages spoken (Carson, 2018). Timor-Leste has some 20 local languages (Timor-Leste Ministry of Education, 2013).

A significant change in Vanuatu is the implementation of its national language policy which enables schools to choose between instructing in a vernacular language or Bislama (one of Vanuatu's national languages) in Years 1 to 4, after which there is a transition to French or English. This is a key part of the curriculum reform. Timor-Leste takes a different approach, adopting its lingua franca, Tetun, as the student's first language in Grades 1 to 3, with gradual introduction of Portuguese from Grade 2. In Laos, the language of instruction remains Lao language all through schooling.

### Vanuatu

From the first year of the Vanuatu study, there were a number of findings associated with introduction of the language policy. A key finding was that use of a language most students in a school are familiar with, and confident in, seems to support students' learning in the early years. Moreover, the ability of teachers to use Bislama or a vernacular language in the classroom was reported to be a factor in improving teaching practice. The reform is supported through the provision of readers in Bislama and multiple vernaculars, Bislama teacher guides, and training to support the language transition. Accompanying this change were campaigns supported by VESP targeting parents and communities on the new curriculum, and in particular changes to language policy.

However, there are some challenges emerging that may inhibit some of the perceived initial successes of the reform. Of primary concern is the delay in training for Year 4 teachers, a critical language transition year, which presents a risk to any learning

gains made in Years 1 to 3. Furthermore, there appears to be uneven application of the language policy, and the ways in which choices regarding the language of instruction are made by schools and communities. The first year of the study found that some students were attending schools and being instructed in a different vernacular to their mother tongue. Some schools and communities have expressed concern about the uneven messaging around the use of language in the new curriculum.

### Laos

The pre-intervention (baseline) study findings in Laos indicated that Lao language literacy levels were concerning. Of the Grade 1 students tested, 60 per cent demonstrate limited, very limited or no Lao language literacy skills at all. Three per cent of students were considered proficient and meeting Grade 1 curriculum expectations for Lao language, indicating more time is needed for teachers and students to consolidate basic oral language skills – an essential precursor to early reading skills. These findings are consistent with the results of other learning assessments for Laos. The 2017 Assessment of Student Learning Outcomes (ASLO) reported low overall Grade 3 student performance in Lao language. The 2019 South East Asia Primary Learning Metrics reported only six percent of Grade 5 children were progressing towards the expected levels of reading proficiency at the end of primary education (UNICEF & SEAMEO, 2020).

The pre-intervention (baseline) study findings highlight language was perceived by both teachers and principals as an obstacle for teaching and learning. The majority of teachers whose native language was other than Lao used a mother tongue language while teaching Lao on some occasions. Students who spoke Lao-Tai (the language of instruction) at home demonstrated slightly stronger test performance than students who spoke other languages. There was variance between ethnic groups. Additional training on teaching Lao language to non-Lao speakers was considered an important support for improving the teaching of Lao language by more than half the teachers. Some schools provided additional instructional time in Lao language for students whose home language is not Lao, but how and when this was provided varied between schools.

### Timor-Leste

Language of instruction was not a key area of investigation in the Timor-Leste study, and fewer respondents discussed this issue, when compared to the other two studies. Some respondents identified language barriers as compounding some of the challenges of implementing the curriculum. Relying on teaching resources in either Portuguese or Tetun limits accessibility of content and creates some confusion amongst teachers and students.

### Emerging considerations from the study series

In multilingual contexts where mother-tongue based education policies are in place, how such policies are implemented at the school level can vary significantly across contexts, depending on the social, cultural, economic and political aspects that characterise each school community. There may be a gap between the ideals of what is perceived as 'best practice' and what can realistically be achieved, particularly where there is significant disadvantage, few resources, and a community that is not fully engaged in education (ACER, 2018). Important decisions such as choice of language and teacher deployments may have an impact on the sorts of teacher development interventions that need to be considered to support student learning.

In the case of contexts where many children do not speak the language of instruction as their home language, such as in Laos, additional resources and training are needed to ensure teachers – and parents – can support students effectively.

In both cases, there needs to be attention to ensuring the teacher development strategy is specific to the learning issues of each context. Some recommendations to consider for policy, programming and research include:

### Policy

- Greater dialogue between central governments and school communities (and within school communities) about awareness, intention, design and extent of language policy may improve their implementation and facilitate community engagement. Ensuring implementation can take into account local contexts and needs may

encourage greater support and involvement of parents and communities in education.

- Policymakers need to monitor the impacts of language policy and new curriculum on student learning and equity and use this data to inform revisions to policy and practices in the areas of curriculum, teaching and assessment. Achievement gaps in the early years between high and low performing students can widen over time without targeted interventions.

### Programming

- Parents and communities need to be encouraged and supported to actively develop oral language skills in children, in any language, from an early age. Oral language skills are an essential precursor to early reading skills.
- Teachers and schools need to be trained and supported to use different learner-centred strategies to effectively teach key literacy skills to students who come from diverse ethnicities and language groups, including those with little or no literacy skills in any language. Teachers also require ongoing support in the methodologies required to successfully transition students from one language to another.
- Teachers need to be proficient in the language of instruction, and also have good command of the home languages of their students. Teachers need professional learning to help build their knowledge and confidence in the language of instruction. Where this is not feasible, community members could provide this support to students as well as teachers.

### Research

- Research that monitors the long-term outcomes of language policies on student achievement needs to be funded. This is to ensure availability of up-to-date and detailed data to support and sustain evidence-based policy decisions towards improved teaching and learning.

## Theme 2. Approach to teacher development

As discussed in section 2, models of teacher development vary by country and by investment. Moreover, each country has its own unique set of challenges with regards to its teaching workforce.

The qualifications and experience levels of teachers, as to be expected, varies in each country. While there are standards specified in each country, there often exists a mix of permanent teachers and – depending on the country's classification system – temporary, untrained, contract, and/or volunteer teachers in schools. For example, in Vanuatu there is a shortage of primary school teachers and one study found that only 63 per cent were certified (DFAT, 2018, p.9). Complications with the nation's only government teacher training institution means it will be some time before existing and future teacher cohorts will be able to upgrade their qualifications. Many untrained teachers have been allocated to fill gaps in the early grades as they are more likely to speak the local vernacular (DFAT, 2018, p.9). In Laos, volunteer teachers account for around 10 per cent of the country's public primary teacher workforce. There are difficulties attracting qualified teachers in remote and ethnic areas which contributes to a large number of incomplete schools and multigrade classes (DFAT, 2014). In Timor-Leste, only half of permanent teachers hold a Bachelor-level qualification (Owen & Wong, 2020). Diversity of teacher qualifications and experience levels may pose a challenge to ensure consistency of teaching quality across the system.

As in many resource constrained environments, in-service teacher training is implemented through a cascade model. In Vanuatu, a series of teacher training modules have been developed with the support of VESP, closely linked to the new curriculum roll-out. Master training is provided to provincial trainers, who in turn run the training programs in the provinces, for teachers and principals. In Laos, BEQUAL supports a similar approach, with master trainers running one-week district level training for teachers by grade level, before each school year begins. In Timor-Leste, the education ministry

also implements a cascade model of training for teachers during term breaks, delivered through local education leaders (*adjuntos*). ALMA supplements this training by providing follow-up support to principals and teachers. In all three countries, accessibility to each round of training varies for all teachers regardless of classification, as well as for principals and education officials in teaching support roles (such as school improvement officers, pedagogical advisers).

The revision of teachers' guides is a key part of the teacher development strategy in each of the three countries, given the large numbers of underqualified and untrained teachers and the scarcity of opportunities for teacher professional learning. In Timor-Leste, the teachers' guides were designed to be intentionally prescriptive with scripted lessons. The approaches used in Vanuatu and Laos were less prescriptive, but have been developed to deliver more guidance than provided in the former curriculum.

### Vanuatu

Some key findings from the first year of the Vanuatu study included that the VESP training has been effective in improving teacher knowledge on lesson planning, subject matter and pedagogical approaches. The modules 'Effective Teaching and Learning' and 'Ademap Lanwis' (language transition) were reported as particularly helpful. Untrained and/or temporary teachers have, in particular, benefited from VESP training by strengthening their knowledge of effective teaching and increasing their self-confidence. Many teachers also reported that the teachers' guides were useful in providing them with topic areas and strategies for teaching them.

However, there are some challenges that have been highlighted through the study. In addition to the delay in Year 4 teacher training, as discussed under Theme 1, a key finding includes the uneven nature of training provision – not all Years 1 to 3 teachers have participated in the full suite of training. This is particularly concerning given the high proportion of untrained and/or temporary teachers teaching the early grades. Furthermore, while there are significant numbers of early grade teachers teaching multigrade classes, there is currently no professional support for multigrade strategies.

### Laos

The pre-intervention (baseline) study highlighted overall teacher knowledge, experience of teaching Lao language as a foreign language and a lack of training on Lao language teaching methods as key issues to be addressed. The majority of teachers reported they were not aware of the new curriculum pedagogies and many indicated they found aspects of teaching Lao language difficult. Teachers reported and were observed using a limited set of pedagogical practices for teaching Lao language, and had a small range of resources. Some teachers also reported a lack of knowledge and training related to teaching multigrade classes. There is currently no professional support for teachers in this area and this is not planned.

A decision made during the design of the BEQUAL-supported in-service training program was to set realistic timeframes and indicators for improvement. In the short-term period of one to two years, the intended outcome of the in-service program is to orientate teachers to the new curriculum and its resources, such that they are confident to use the teachers' guides and resource pack, and engage with available support systems and resources. While principals were to be included as part of the first round of teacher training for Grade 1 teachers, due to budget constraints, their participation may be limited in future years.

### Timor-Leste

Key findings from two years of the Timor-Leste study suggest that the supplementary teacher development interventions through ALMA, have supported improved teaching quality. The program facilitates instructional leadership and empowers school leaders to assist teachers. Peer learning forums and the use of educational technology to observe classes and provide feedback to teachers have supported improvements in teacher knowledge, motivation, self-confidence and preparation. Peer learning forums have facilitated teachers sharing of expertise, and preparation for lessons, often around shared lesson plans. With the aid of tablets, teachers and school leaders can access and utilise lesson plans and materials, with school leaders and mentors using this technology to monitor delivery of lessons against the lesson plans.

However, across the four municipalities that have been investigated to date in the study, it is clear there are significant risks to the sustainability of outcomes following the completion of the ALMA intervention in each program phase. These risks relate to: limited capacity and motivation to continue activities without ongoing support from mentors or opportunities for professional learning; the absence of succession planning to manage institutional capacity gaps caused by leadership transitions; and, limited resources to support program activities such as observations and peer learning sessions. These findings are elaborated in the next theme.

In Timor-Leste the challenges of teaching multigrade classes were not raised by respondents as frequently as in the Vanuatu and Laos studies. However, few teachers have a background in multigrade teaching and there is no planned support for this.

### Emerging considerations from the study series

In contexts where there exists a large number of underqualified and untrained teachers in the workforce, and professional learning opportunities are limited, the introduction of a new curriculum provides an opportunity to provide much needed support to less experienced teachers through training and more guided curriculum materials (including scripted lessons and detailed lesson plans). However, a scarcity of resources lends itself to a standard, rather than differentiated, model of teacher development, for example as evidenced through a reliance on cascade training.

Limited resources also places pressure on the comprehensiveness of training programs and the degree of follow-up support (or continuous professional learning) that can be provided. The emphasis placed on the training input as the major teacher development intervention raises the question of the degree of change to teaching practices one can expect, particularly if teachers have not had an opportunity to engage or complete a formal teacher education program. Developing teachers' knowledge, attitudes and beliefs requires time and continuous support, as does repeated applications of good practice and ongoing improvement.



Some recommendations to consider for policy, programming and research include:

#### **Policy**

- Policymakers need to use evidence collected about teaching quality and student learning outcomes to support the development and revision of teacher development policies and practices, and the allocation of resources in this area.
- Recognising that demonstrable improvement in teaching takes time, policymakers need to design and resource teacher development strategies with realistic timeframes and realistic indicators of improvement.

#### **Programming**

- Measures need to be put in place to ensure less experienced teachers receive additional follow-up support or extended training. This can include leveraging the skills and knowledge of highly qualified teachers and principals to mentor or lead peer learning groups and cluster based training. Enabling continuous professional development systems can reduce the reliance on less-effective cascade training models.
- Teacher development approaches need to be designed to address the specific teaching and learning challenges at hand. An example includes differentiated teaching for multigrade classes.
- It is important to continue to review and evaluate the quality of training that is provided to teachers. To improve effectiveness, measures need to be put in place to lift the quality of training inputs and trainer capacity. An example includes drawing on the skills and knowledge of highly qualified teachers and principals. Teacher education institutions can also play an important role in lifting this capacity, and making connections between pre-service and in-service training systems.

#### **Research**

- The outcomes of teacher development approaches need to be monitored meaningfully and systematically over time. Using a range of approaches including classroom observation data, teacher and education stakeholder data, and student assessments can provide a holistic view of teaching quality.



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### Theme 3. Embedding teacher development within a system of support

The success of teacher development interventions depends on whether the strategies are taken up and evidenced by changes to teaching practices in classrooms. Support systems are critical for this. Each study investigates the institutional structures that are in place to support the ongoing development of teachers and the monitoring of their performance. Institutional structures include principals and sub-national education officers such as provincial trainers and school improvement officers in Vanuatu, pedagogical advisers in Laos, and adjuntos and inspectors in Timor-Leste. What role do they play in strengthening teaching and learning in schools? Do they have the capacity and resources to do this effectively?

There is much evidence as to the role that principals can play in driving a learning improvement agenda within schools (Government of Western Australia & ACER, 2018; Sebastian et al, 2016). The availability of leadership training for principals (or school leaders as in the case of Timor-Leste) varies between each country. In Vanuatu, the VESP has provided instructional leadership training to principals, and modelled and taken to scale a program piloted by UNICEF in one province. In Laos, such a program is not planned. In Timor-Leste, the design and implementation of a Leaders of Learning program for school leaders in ALMA participating schools is a hallmark of the program.

Across each of these countries, principals often play a dual role, with many having teaching responsibilities in addition to management responsibilities. Whether in-school or inter-school peer learning opportunities and exchanges exist seems to vary and is dependent on the principal's leadership in Vanuatu and Laos. In Timor-Leste, peer learning groups are a key component of ALMA, and hence they are resourced and facilitated as part of the program intervention.

The structure of systems of support varies across each of the three countries. In Vanuatu, there is a process of devolution involving the set-up of

provincial education offices and the strengthening of their capacity to support schools. School improvement officers and provincial trainers are designated as school supports. In Laos, provincial and district education officers are in place, and district level pedagogical advisers have the role of monitoring and visiting schools. In Timor-Leste, schools are clustered. Lead schools (also known as central schools) have a director and adjunto, the latter of which has the role of monitoring teaching and learning and visiting schools. These school leaders and each school principal have been supported by a team of ALMA mentors who provide school-based mentoring and coaching. Across all three countries, there are issues related to the capacity of sub-national officers to drive learning improvement agendas, and limited budget which constrains their ability to visit schools and provide monitoring and support.

#### Vanuatu

A key finding from the first year of the Vanuatu study is that the implementation of Vanuatu's new curriculum could be strengthened through greater support from provincial trainers, school improvement officers and principals.

School-based support from provincial trainers and school improvement officers remains infrequent and of varying quality. Some provincial trainers and school improvement officers noted they need upskilling, and the limited budget and high cost of travel in the provinces greatly limits their ability to undertake monitoring and provide follow-up support to schools.

There are also budgetary challenges for certain schools in accessing opportunities for inter-school knowledge exchange, including available support from 'lighthouse schools' designated in each province.

Many principals who had attended leadership training supported by VESP and other programs, reported this had helped them in improving teaching and learning in their schools. Examples included increased cooperation with teachers, provision of school-based training, checking of lesson plans, and observing lessons and providing feedback.



## Laos

The baseline study found that most teachers received support from their principal for Lao language teaching in areas such as material preparation, lesson planning, pronunciation and teaching methods. In some schools, there were functioning teacher working groups and peer collaboration.

While some teachers received visits from their pedagogical advisers, frequency varied by region. A limited budget was cited as the main hindrance to pedagogical advisers being able to fulfil their monitoring and mentoring support role. Some pedagogical advisers acknowledged they need upskilling, including on the new pedagogies promoted in the new curriculum.

In BEQUAL's 32 target districts, additional support is planned. This includes further in-service support to teachers and principals through activities aimed at strengthening communities of practice, promoting teacher use of self-access learning resources and tools, supporting schools to implement the new curriculum, and providing district level support grants. Examples of activities include: peer-to-peer support, networking, pedagogical adviser monitoring visits, and teacher cluster meetings to discuss specific issues.

## Timor-Leste

As discussed under theme 2, both teachers and school leaders have reportedly benefited from the Leaders of Learning training, which has improved the capacity and confidence of school leaders to observe and provide feedback to teachers, and more broadly, has facilitated a shift towards greater focus on learning improvement within schools. ALMA has also been effective in facilitating a peer learning process that enables teachers to prepare and present lessons, provide feedback, share challenges and workshop solutions.

However, without active ongoing program interventions, there have been reports of challenges in maintaining these professional learning opportunities. For example, without the presence of mentors, there has been limited capacity and

motivation from school leaders and teachers to continue activities, and a limited budget has seen a reduction in observations and peer learning sessions being held in clusters given the associated transport and food costs.

Under the ALMA program, the education ministry has been working towards expanding the role of the Inspectorate to fulfil and institutionalise the mentoring role previously provided by ALMA mentors.

Competing commitments, limited availability and long travel distances with poor road conditions are also significant challenges to ongoing participation in ALMA activities.

Additionally, participants experience continued challenges with the educational technology component of ALMA, which limits their ability to continue undertaking the program activities. These challenges include understanding tablet functionality, responding to software updates, managing hardware faults and unreliable access to electricity and internet.

## Emerging considerations from the study series

In resource constrained environments, it is rare to see adequate and sufficient budgets allocated for ongoing teacher professional learning (such as peer learning, communities of practice, observations), monitoring of teachers, or support to principals to strengthen their school leadership capacity. Furthermore, it is unusual for principals, teachers and sub-national education officers to be held accountable for improved teaching and learning.

There is a significant question of how to get a 'full return' on these initial teacher development interventions (most often, training inputs). Planning ways that the outcomes of teacher development interventions can be sustainable requires thoughtful consideration of how ongoing support can be embedded in systems. This speaks to not only issues of budget, but also the need to pay attention to the quality of institutions and human resources at the sub-national level. Only then can the investment ensure an ongoing focus on improving teaching and learning within schools.

Some recommendations to consider for policy, programming and research include:

### Policy

- Policymakers need to consider how accountability measures for improving teaching and learning can be integrated into principal and teacher recruitment, deployment and performance management.
- Policymakers need to ensure adequate budgets are directed towards teacher development initiatives beyond initial training inputs. Activities such as peer learning, communities of practice and observations need sufficient recurrent resourcing.

### Programming

- Measures need to be taken to strengthen the school leadership capacity of principals so that they can lead teaching and learning in their schools.
- Sub-national education officers also need to receive ongoing professional learning, such as coaching, specific to their roles and responsibilities to ensure they have the capacity to effectively monitor and mentor teachers and principals.
- Sufficient resources need to be provided to facilitate regular monitoring and mentoring visits by education officers to schools. Recognising that such resources are not always available, strategies to reduce travel costs and to systematise visits can be considered. Examples are joint and rotated visits, working with principals to establish school-based peer learning groups and setting up accountability measures that 'check in' with officers to remind them of visits.

### Research

- The quality and outcomes of support provided by education officers to schools needs to be monitored and evaluated over time.



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## Theme 4. Monitoring teaching quality and student learning

Detailed information about what students know and can do is essential for informing systems-level and classroom-level strategies to improve learning and reduce inequity.

Data on student learning can provide feedback on what is or not working in an education system. Often, student learning outcomes data is used as an indicator of teaching quality. However, a lack of rigorous and systematic collection in many countries makes this approach unreliable. The experience of collecting and analysing existing and new teaching and learning data for this study series confirms this problem. Furthermore, direct causal relationships between student achievement and teacher effectiveness assumes student learning is measured well by any assessment and is independent from factors related to classroom contexts, home, community, earlier learning experiences and disruptions due to events such as extreme weather and pandemics.

In light of this, the study designs recognise that data about teaching quality and student learning needs to come from a range of sources. Student learning is not only about academic outcomes. For example, student engagement (including well-being and interest in lessons) is a robust predictor of student achievement. This is particularly important to investigate due to the COVID-19 context and the need to support student well-being and interest in learning.

Classroom-based assessment data can help teachers to develop strategies that target individual learning needs. In each country a key focus of the new curriculum is improving classroom-based assessment, by placing an emphasis on formative assessment strategies and shifting teachers away from traditional assessment approaches and testing. The studies have collected data on teaching practices related to assessment through case study interviews in each country, as well as classroom observations in Laos. Lifting teacher capacity in this area is especially important due to the impact of COVID-19 and lengthy school closures. Teachers' understanding as to where children are at will go

some way to ensuring remedial strategies are well-targeted to reduce the projected widening equity gaps in learning.

### *Timor-Leste*

In Timor-Leste, there is no national assessment strategy in place and therefore efforts have been made by development partners to collect project-based student learning outcomes data. This data was analysed for the first year of the study and provides an important snapshot into the early phases of ALMA. However, with no subsequent collections of student achievement data since, the ability to monitor the longer impact of teaching and learning reforms, like the country's new curriculum and ALMA program, is constrained.

One of the key aspects of the new curriculum is to improve the capacity of teachers in classroom-based assessment. Stakeholders have reported a need for valid and reliable ways of assessing students and the impact of ALMA. Some teachers and leaders stated that ALMA has helped them to learn different ways to assess students and to understand students' learning capabilities. Classroom observations to be conducted in the final year of the study will offer additional insights into the assessment practices of teachers.

### *Laos*

In Laos, a fit-for-purpose student learning assessment was designed for the study due to the lack of existing assessment data for the early grades. This enables the study to investigate changes in teaching quality and student learning before and after the introduction of the new curriculum and associated teacher development initiatives. However, it needs to be acknowledged that this collection of student learning data is study-driven, rather than integrated as part of a broader assessment system.

While almost all surveyed teachers reported they undertake some form of student assessment, the methods used are very limited – mostly reading and writing through copying or dictation. Classroom observations offered a valuable insight into the ways in which teachers assess student progress.

## Vanuatu

In Vanuatu, the study is able to draw on student learning data from the country's implementation of two large-scale assessments – a nationally standardised assessment and a regional assessment. Vanuatu's systemic involvement in these two learning assessments allows the country to monitor education quality over time, and track the impact of its primary education reforms on student learning and equity.

In the first year of the study, a range of teachers reported that the VESP training and new curriculum has helped them to use classroom assessments, to identify how students are progressing, and to develop strategies to support a range of student abilities. Classroom observations will be conducted from the second year of the study. They will offer additional insights on the assessment practices of teachers.

### Emerging considerations from the study series

The experience of designing and implementing these studies highlights the value of investing in rigorous monitoring of teaching and student learning outcomes.

Large scale learning assessments, such as those implemented in Vanuatu, support the monitoring of education systems – their quality, system strengths and weaknesses. While investments in one-off learning assessments provide a useful snapshot, without investing in systematic collection a country is limited in its ability to monitor changes to education quality and equity in outcomes over time.

Using a range of approaches to monitor teaching quality and student learning is needed to provide a more holistic view of outcomes. Causal links between teaching quality, teachers' experience of a new curriculum and student achievement are difficult if not impossible to determine.

As the studies progress and classroom observations in Timor-Leste and Vanuatu are introduced, there will be further detailed insights into the assessment practices of teachers and their capacity to utilise results for more targeted teaching. Due to the

impact of COVID-19, it will be important to support teachers to effectively use these skills once physical classes resume.

Some recommendations to consider for policy, programming and research include:

#### Policy

- Policymakers need to commit to and resource systems for monitoring student learning at the system and school level. Efforts need to be made towards building the capacity of policymakers to analyse and use the findings of assessments to inform policies and practices related to curricular, teaching, assessment and their resourcing, to lift achievement levels and improve equity. Equally, such efforts need to be made to support the understanding of teachers and principals.

#### Programming

- Teachers and principals need ongoing professional learning to improve their capacity to undertake and understand classroom-based assessments, to improve the quality of teaching and learning. To address challenges specific to the experiences and needs of each teacher and their students, school-based professional development models can play an important role.
- During COVID-19, measures need to be put in place to help teachers to assess where children are at when school resumes, and to target remedial strategies to ensure the most disadvantaged students are not further left behind.

#### Research

- The outcomes of teacher development approaches on teaching quality and student learning need to be monitored meaningfully and systematically over time. Going beyond academic outcomes to monitor aspects such as student engagement, can provide a more complete view given the holistic nature of student learning. Using a range of approaches including classroom observation data, teacher and education stakeholder data, and fit-for-purpose student assessments can provide greater insights into the complex nature of teaching and learning.



## Conclusion

Initial findings from this multi-year study series in Timor-Leste, Vanuatu and Laos have identified emerging themes for consideration in policy, programming and research on teacher development investments. These themes include:

1. **Language of instruction**
2. **Approach to teacher development**
3. **Embedding teacher development within a system of support**
4. **Monitoring teaching quality and student learning**

These four themes are significant in that they have emerged consistently from each country, but present different considerations as relevant to each context.

The theme of language of instruction and the implementation of language policies were found to vary across contexts, depending on the social, cultural, economic and political aspects that characterise each country and school community. Decisions such as choice of language and teacher deployment, may have an impact on the sorts of teacher development interventions that need to be considered to support student learning.

In considering the theme of each country's approach to teacher development, where there exists a large underqualified and untrained teaching workforce in each location, and professional learning opportunities are limited, the introduction of a new curriculum provides an opportunity to provide much-needed training. However, the model of teacher development is often delivered via a standard, rather than context-specific, training package. In addition, limited resources place pressure on the ability to provide continuous professional support.

The third theme addresses embedding teacher development within a system of support. This presents the challenge of how to make the outcomes of teacher development interventions sustainable. The notion of embedding within a system goes beyond a teaching quality investment itself and considers budget, institutions and ongoing support of human resources within a government system.

The final theme explores monitoring teaching quality and student learning. A robust system of monitoring can help governments understand what is working and not working in a system, and make requisite changes to curricular, teaching, assessment and resourcing to lift student achievement levels and equity. At the classroom level, principals and teachers need the skills to undertake classroom-based assessment to ensure they can meet individual learning needs.

As noted at the outset of this discussion, each country is undertaking its own process of curriculum reform. To support the reforms, each country is implementing programs to support teachers to improve teaching quality through adopting new pedagogical approaches. While each country in this study series is at a different phase in their reform process, and the progress of each study is also at different stages, it is anticipated that the insights from the emerging evidence presented in this paper might usefully inform teacher development policy, programming and research in these and other locations, with linkages to the critical issue of improving student learning outcomes.

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## About the authors

**Debbie Wong** is a Senior Research Fellow in the Educational Monitoring and Research Division at the Australian Council for Educational Research. Debbie is the Project Manager for the DFAT teacher development study series, and co-leads the Laos and Vanuatu study teams of the DFAT teacher development study series.

**Elizabeth Cassity** is a Senior Research Fellow in the Educational Monitoring and Research Division at the Australian Council for Educational Research. Elizabeth co-leads the Vanuatu and Timor-Leste study teams of the DFAT teacher development study series.

