



Education Analytics Service (EAS)

Teacher Development Multi-Year Study Series:

TIMOR LESTE

Interim Report 1

Final

April 2019



This document has been prepared under the management of the Department of Foreign Affairs and Trade (DFAT)'s Education Analytics Services (EAS).

Amendment History

Version No.	Date	Brief description of change	Author
1	14 December 2018	Draft report	Elizabeth Cassity Jennie Chainey Sheldon Rothman
2	9 May 2019	Final report	Elizabeth Cassity Jennie Chainey Sheldon Rothman

Table of Contents

Abbreviations and acronyms.....	3
Executive summary	5
Summary of Findings.....	6
Summary of Lessons and Recommendations	7
1 Introduction.....	8
2 Methodology	10
Quantitative	10
Qualitative.....	11
Limitations.....	11
3 PLMP in context – findings from Aileu and Manufahi.....	12
Aileu (Daisoli cluster) and Manufahi (Dotic cluster)	12
Sustainability.....	28
Summary.....	30
4 Student learning outcomes in Timor-Leste – findings from EGRA and CBA	31
Assessments used	32
Results on the CBA.....	33
Results on the EGRA.....	38
Other measures.....	41
Summary.....	41
5 Conclusion	42
Review of key findings	42
Key lessons, barriers and recommendations	44
Appendix A: Conceptual model.....	47
Appendix B: Overview of the Professional Learning and Mentoring Program	48
Appendix C: Detailed methodology.....	50
Attribution.....	50
Quantitative	50
Qualitative.....	51
Limitations.....	55
Data availability.....	56
Appendix D: Field research training outline	58
Appendix E: Interview guides	59
Appendix F: PLG observation tool	75
Appendix G: Consent form	78
Appendix H: Field research schedule	80
Appendix I: Field research debrief tool	81
Appendix J: Summary of data sources	82
Appendix K: Timeline.....	86

Abbreviations and acronyms

ACER	Australian Council for Educational Research
ALMA	Apoiu Lideransa liuhosi Mentoria no Aprendizajen
CBA	Curriculum Based Assessment
CFS	Child Friendly Schools
DFAT	Department of Foreign Affairs and Trade
EAS	Education Analytics Service
EDC	Education Section (DFAT)
EGMA	Early Grades Mathematics Assessment
EGRA	Early Grades Reading Assessment
EMBLI	Mother Tongue-Based Multilingual Education
EMIS	Education Management Information System
GTP	Grupu Traballu ba Professor
ICC	Intraclass Correlations
IEC	Independent Evaluation Committee (DFAT)
ODE	Office of Development Effectiveness (DFAT)
MoE	Ministry of Education (Timor-Leste)
M&E	Monitoring and Evaluation
PHD	Partnership for Human Development
PLG	Peer Learning Group
PLMP	Professional Learning and Mentoring Program
RTI	Research Triangle Institute
UNICEF	United Nations International Children’s Emergency Fund
USAID	United States Agency for International Development

Executive summary

The purpose of this Interim Report is to present the findings from the first year of a multi-year study of Timor-Leste's Professional Learning and Mentoring Program (PLMP)¹. The study focuses on understanding the extent to which education stakeholders, including school leaders and teachers, develop teaching knowledge and change teaching practice over time. It also explores the extent to which participation in the PLMP leads to improvements in learning outcomes for students. This study of the PLMP is framed within the context Timor-Leste's introduction of a new National Basic Education Curriculum.

The overall aim of this study is **to investigate how this aid investment – the PLMP – produces improved teaching quality and improved student learning**. This report provides an analysis of the initial findings related to three specific questions:

Question 1.

To what extent does the PLMP support improved teaching quality in Timor-Leste?

Question 2.

To what extent does the PLMP support the effective implementation of Timor-Leste's National Basic Education Curriculum?

Question 3.

To what extent does teacher involvement in the PLMP lead to improved learning outcomes for Timor-Leste students?

Teaching itself is a 'noise-filled' context. There are a range of contextual factors that enable and constrain investments in teaching. With this in mind, the methodology for this study recognises the various factors associated with teaching quality, the new curriculum and student learning outcomes.

The study uses a mixed methods approach to data collection and analysis. Methods include qualitative case study analysis and quantitative data analysis. The data collections include:

- Case study data collected in Manufahi and Aileu municipalities.
- Student learning outcomes data from the 2017 World Bank Study using two available data sets: Classroom Based Assessment (CBA) and Early Grades Reading Assessment (EGRA).

Overall, the first year of this study found that the PLMP investment is associated with improved teaching quality and supports effective implementation of the curriculum. The relationship between student learning outcomes and PLMP is less clear at this early stage.

¹ PLMP was renamed 'Apoi Lideransa liuhosi Mentoria no Aprendizajen' (ALMA) in early 2019 after completion of Interim Report 1.

Summary of Findings

The following indicative findings have emerged from this stage of the study:



Finding 1.

PLMP is effective in supporting improved teaching quality through facilitating instructional leadership and empowering school leaders to assist teachers.



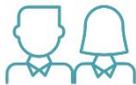
Finding 2.

PLMP is effective in supporting implementation of the National Basic Education Curriculum through facilitating a peer learning process for teachers to prepare, review and present lessons, provide feedback, share challenges and workshop solutions. It is also effective in supporting teachers and school leaders to utilise and access lesson plans and materials.



Finding 3.

There is an indication that in the short time after introducing the new curriculum overall scores on the CBA for students in Grade 2 and Grade 3 favour PLMP rather than non-PLMP schools.



Finding 4.

There is little difference between the mean scores on the majority of components for EGRA between PLMP and non-PLMP schools for students in both Grade 2 and Grade 3. At the same time, a higher percentage of Grade 2 and Grade 3 students in PLMP schools were able to respond to components on the EGRA. In other words, there were a lower number of zero scores for PLMP schools (a zero score can be obtained by a student not answering any question correctly, or by students not responding to a question at all).



Finding 5.

There are some indications that student interest in lessons and student attendance has improved because of improved teachers' confidence, preparation, positive discipline and classroom management skills learned through PLMP.



Finding 6.

There are risks to program sustainability following completion of PLMP in a cluster.

Summary of Lessons and Recommendations

While the study of PLMP has just completed its first year, there are a number of lessons and possible recommendations that can be considered in future programming. One advantage of conducting case studies of two different phases of PLMP rolled out in different municipalities is that it provides insight into the sustainability of the program from the perspective of stakeholders. Some risks and proposed recommendations include the following:

- Limited capacity and motivation to continue activities without the presence of active program interventions.

Recommendations might include developing strategies that consider how to support school communities to sustain activities while scaling down support.

- The absence of succession plans to manage institutional capacity gaps caused by leadership transitions.

Recommendations might include a component to the Leaders of Learning Program to support leadership change management. Another recommendation could be introducing periodic refresher training on particular components of PLMP to school leaders and teachers who demonstrate leadership capacity. This recommendation would include providing school leaders with ongoing access to technical support for the educational technology component (tablets).

- Limited resources to support program activities for school observations and peer learning groups (PLGs).

A recommendation might be to consider periodic resourcing to support school monitoring and PLG activities. A second recommendation would be to actively include inspectors and municipal education directors in PLMP activities.

- Limited access to school feeding programs and long distances for rural students to travel to schools are persistent challenges in improving student attendance and school learning outcomes. Limited school infrastructure, and teacher and classroom shortages are also ongoing challenges in a number of schools.

While PLMP has supported teachers and school leaders in implementing the new curriculum despite these challenges a recommendation might include possible Government strategies to address student participation in school and deteriorating school infrastructure.

The recent case study collection also gathered evidence on gender and disability inclusion. Whilst school leaders and teachers widely recognise educational equity as a human right and endeavour to incorporate inclusive teaching practices, many indicated that they had limited knowledge and training in terms of implementing equitable systems at schools. One possible recommendation could be to integrate gender and disability inclusion in future curriculum review and training for school leaders, teachers and mentors.

1 Introduction

In 2014, the Office of Development Effectiveness (ODE) in close consultation with the Australian Government's Department of Foreign Affairs and Trade's (DFAT) Education Section (EDC) conducted an evaluation of Australia's recent and current investments in teacher development including desk reviews of 27 bilateral Australian aid investment programs. The findings of that evaluation, presented in the report *Investing in Teachers* (Department of Foreign Affairs and Trade, 2015), found almost no data on outcomes that could be attributed to DFAT's teacher development investments, and determined that it was impossible to judge whether teacher development has led to improved teaching practices or improved student learning outcomes.

Recommendation 3 of the evaluation stated that DFAT should work systematically to improve its monitoring and evaluation of the outcomes of investments in teacher development (Department of Foreign Affairs and Trade, 2015, p. 8). In its management response, DFAT committed 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' (Department of Foreign Affairs and Trade, 2015, p. 12).

This report constitutes the first Interim Report of a multi-year study of Timor-Leste's PLMP and aims to identify the outcomes of participation in Timor-Leste's PLMP. In particular, this study seeks to understand the extent to which the PLMP supports leaders and teachers to develop teaching knowledge and to change teaching practice over time, and the extent to which teacher participation in PLMP leads to improvements in learning outcomes for students.²



² For more detail, refer to Appendix B: Overview of the Professional Learning and Mentoring Program.

In 2013, the Timor-Leste Ministry of Education (MoE) began a staged development of a new curriculum for pre-school to Grade 6, to improve literacy and numeracy. The new National Basic Education Curriculum organises subject content into sequenced and scripted lessons for each grade level to support teachers to implement the new curriculum, and to ensure content uniformity across classes and schools. It also proposes new pedagogies that aim to transform teaching and learning approaches in Timor-Leste, moving from traditional teacher-centred approaches to student-centred ones. Work on the earliest grades was completed in 2015. To introduce the new curriculum, the MoE used a cascade training model. The MoE provided training for local education leaders who then provided training for teachers in their school clusters. The training was aligned to the phased rollout of the new curriculum beginning with Grades 1 and 2 in 2015.

The PLMP commenced in 2016 and aims to supplement the MoE teacher training by supporting continuous teacher professional development, strong school leadership, systems to assess student learning outcomes and systems to support and evaluate teacher performance. The PLMP includes the following core components:

- Leaders of Learning Program
- School-based peer professional learning groups
- Mentor support from international, national and local mentors
- Educational technology to enable efficient information sharing and monitoring.

PLMP was developed in partnership by DFAT and MoE, with contributions provided by each government. Each phase of PLMP covers a nine to 12 month period, and coverage in each municipality includes 50 per cent of clusters in that location. As of 2019, each phase has been adjusted to an 18-month period in an effort to address some sustainability concerns.

The broad question that frames this study of Timor-Leste's PLMP is:

To what extent does this aid investment produce improved teaching quality and improved student learning?

Three specific questions related to this broad question are being investigated:

1. To what extent does the PLMP support improved teaching quality in Timor-Leste?
2. To what extent does the PLMP support the effective implementation of Timor-Leste's National Basic Education Curriculum?
3. To what extent does teacher involvement in the PLMP lead to improved learning outcomes for Timor-Leste students?

The purpose of this report is to investigate the extent to which PLMP has improved teaching quality and student learning to date through:

- presenting the interim findings for each of the three above questions
- identifying key lessons to make judgements and recommendations for the program.

This report begins with a summary review of the methodology for the overall PLMP multi-year study. It then presents the findings of the first two case studies in Manufahi and Aileu municipalities. An exploration of the student achievement data in PLMP and non-PLMP schools follows. The conclusion presents an overall synthesis of the qualitative and quantitative findings, and considers implications for PLMP based on evidence emerging from the research.

2 Methodology

A key feature of the PLMP study is its multi-year duration, which acknowledges the complex nature of teacher development and that sustained change in teaching practice takes time. It also recognises the scale of the program investment, and enables an agile and adaptive approach that is responsive to contextual affordances and limitations. The *PLMP Evaluation Plan* (Education Analytics Service, 2017) and the *Teacher Development Evaluation Conceptual Framework* (Education Analytics Service, 2017) provide the rationale and overall approach for the Timor-Leste Multi-Year Teacher Development Study.

The PLMP study uses existing and newly collected data. By using these two types of data, the scope is broadened as much as possible given the human and financial resourcing for the study, and reflects proportionality. The PLMP study adopts a mixed methods approach utilising both quantitative and qualitative methods.

2.1 Quantitative

The quantitative data analysed for the first year of the PLMP study includes the Classroom Based Assessment (CBA) and Early Grade Reading Assessment (EGRA) data collected as part of the DFAT-funded *Lessons learned an early assessment (2017) of two innovations in basic education in Timor-Leste*, hereafter referred to as the 2017 World Bank Study (World Bank , 2018). The CBA measures the extent to which the content of the new curriculum has been mastered by Grade 3 students.³ The CBA was administered to all 6,326 students in the target classes in all schools in both PLMP and non-PLMP schools, and was conducted in Tetun. The EGRA implemented in 2017 used selected components of the EGRA which had been used previously in 2009 in Timor-Leste, to allow the examination of differences between 2009 and 2017 (World Bank , 2018). EGRA was administered to each child individually in Tetun.⁴

For the current analysis, the hierarchical structure of the data has been considered. Students are nested within schools, and schools are located within municipalities. This approach is based on the assumptions that students within a school are more alike than when compared with students in other schools, and that schools within a municipality are more alike than when compared with schools in other municipalities. The initial assumptions about the structure of the data are shown to be correct: the intraclass correlations (ICC) indicate that up to 39 per cent of the variation in the data can be accounted for by the structure. If the ICC

³ Students were assessed on basic reading, mathematics, and Tetun and Portuguese language.

⁴ The six components of the EGRA used in this assessment were Letter Knowledge, Word Reading, Non-word Reading, Text Reading, Reading Fluency and Reading Comprehension.

were low — perhaps below 0.10, or 10 per cent — then the analysis could proceed without the need to consider the hierarchy. To conduct the analyses, we used the MIXED procedure in the Advanced Statistics option of SPSS version 24.

The results reported in this report may differ from previous analytical reports undertaken outside of this study series that do not account for the hierarchical structure of the data.

2.2 Qualitative

Case study methodology enables rich descriptions of programs and stakeholder insights, and is ideal for the multi-perspective analysis required for the PLMP study. For year one of the case study series, PLMP Phases 2 and 4 were selected. Phase 2 was selected because the PLMP intervention concluded in 2017, and it provided an opportunity to investigate the sustainability of the program. Phase 4 was selected because it provided an opportunity to explore the program during the implementation of a new phase.

Clusters were selected based on the inclusion of a central school covering Grades 1-9, and the number of related branch/filial schools with higher student populations. Clusters with central schools of Grade 7-9 only were excluded.⁵ Eskola data (literacy and numeracy, counting observations, peer learning groups, teacher observations and teacher competency) was used to assess intensity of activity, and patterns in student and teacher performance when selecting schools.

Stakeholder interviews⁶ and peer learning group (PLG) observations⁷ were the primary data collection methods for the PLMP case studies. The ACER research team worked in partnership with Belun, a Dili-based NGO, to collect the data. Forty-two interviews⁸ were conducted with PLMP mentors, school leaders (school directors, school coordinators, adjuntos), inspectors, municipal directors and teachers in September 2018. Interviews were recorded in Tetun and transcribed into English for analysis. Two PLGs were observed – one in Daisoli and one in Dotic. (See Appendix H ‘field research schedule’ for further detail).

To conduct the analysis, the ACER team used QSR NVivo 12 Pro. Data was coded aligned with themes identified in the Conceptual Framework (Education Analytics Service, 2017). (See Appendix A ‘conceptual model’ which illustrates the customized model for PLMP study). A test of inter-rater reliability (Cohen’s κ) was performed on a random sample of the qualitative data. The analysis showed, on average, an acceptable level of agreement between two independent coders ($\kappa = 0.7, p < .0005$).

2.3 Limitations

There are some limitations to the Timor-Leste study. First is the issue of attribution within a study investigating teaching quality and student learning outcomes. Attribution is easier to establish when there is a clear causal relationship between the outcome and any preceding

⁵ Timor-Leste’s basic education system (Grades 1 to 9) is organised into clusters. Each cluster has a central school and several branch/filial schools. School directors and adjuntos are located at central schools, and are expected to provide support to branch/filial schools. Each branch/filial school has a school coordinator.

⁶ Refer to Appendix E ‘interview guides’

⁷ Refer to Appendix F ‘PLG observation tool’

⁸ Refer to Appendix G: ‘consent form’

outputs. Teaching itself is a ‘noise-filled’ context. There are a wide range of contextual factors that enable and constrain productive investments in teachers, teaching and education communities, for example, budgetary constraints, and political priorities within schools and the larger national context. While there may be relationships between various factors associated with student learning outcomes, direct causal relationships are difficult to determine.

Second, the qualitative case studies are not intended to generalise the impact of PLMP across Timor-Leste. Case studies are intended to explore the experience of the investment by educational stakeholders in Timor-Leste. In this way, the case studies are intensive (rather than extensive), and investigate small samples but a multitude of variables. The ability to extract this level of detail from PLMP is an important part of the overall study design.

Finally, there were a number of learning outcomes data collections that were not available to the research team at the time of writing this report. Specifically related to baseline data for this study: the 2016 EMBLI endline data was not provided to the research team; the EGRA 2009 data was not useable for the purposes of the Interim Report; and, the 2015 UNICEF Child Friendly Schools (CFS) evaluation used a different methodology to EMBLI and the 2017 World Bank study. These limitations are outlined in more detail in Appendix C.

3 PLMP in context – findings from Aileu and Manufahi

3.1 Aileu (Daisoli cluster) and Manufahi (Dotic cluster)

3.1.1 Introduction

Aileu municipality was included in the Phase 2 implementation of PLMP. Phase 2 began in August 2016 and completed in mid-2017. It was implemented in seven clusters in the municipality. Aileu is a mountainous region. The research team conducted interviews in four schools and a PLG observation in Daisoli cluster, which with 12 schools is one of the larger clusters in Aileu. Daisoli has one large central school covering grades 1-9, five branch/filial schools covering Grades 1-6, and six branch/filial schools covering Grades 1-3. The total student population for Daisoli cluster is 1,208 (Ministry of Education, Timor Leste, 2017).

Manufahi municipality was included in PLMP Phase 4. Phase 4 began in February 2018, and at the time of data collection was being implemented in six clusters in the municipality. The research team conducted interviews in four schools and one PLG observation in Dotic cluster. Dotic cluster has one large central school covering Grades 1-9, two branch/filial schools covering Grades 1-6, and three branch/filial schools covering Grades 1-9. The total student population for Dotic cluster is 1,463 (Ministry of Education, Timor Leste, 2017).

The findings from the Aileu and Manufahi case studies are organised by key themes emerging from the overarching research question ‘to what extent does this aid investment produce improved teaching quality and improved student learning?’

3.1.2 To what extent does the PLMP support improved teaching quality in Timor-Leste?

Context

Schools in Aileu present a number of challenges for teachers, including insufficient teachers to cover all classes, multi-grade classrooms, and long distances between homes and schools. Infrastructure – not enough classrooms, decaying buildings and no place to keep books and other resources – also presents significant challenges for teachers. These issues aside, many respondents acknowledge the impact of PLMP on improving teaching practice in Aileu.

Manufahi schools face overcrowded classrooms and a shortage of qualified and experienced teachers. Of the qualified teachers, many have expertise in one discipline but are required to teach in multidisciplinary learning environments. Others do not come from a teaching background. Teachers are often required to teach multi-grade classes in response to teacher and classroom shortages. Schools in Manufahi's remote areas have limited access to educational resources. Despite these challenging contextual factors, PLMP is reported to have made a significant impact on teaching quality in Manufahi.

Teacher knowledge and practice

Key findings

Finding 1. Mentoring and peer learning components help teachers improve and make changes to their practice.

Finding 2. School leader and mentor support helps teachers develop skills in preparing lesson plans and adapting materials to their classroom contexts.

Finding 3. Mentor observations and feedback enable teachers to immediately address challenges they experience in the classroom.

Finding 4. PLMP supports teachers to incorporate student-centred approaches into their practice.

Finding 5. PLGs provide an opportunity to discuss teaching practice and develop an understanding of lesson planning in the new curriculum.

Discussion

Multiple respondents in both Aileu and Manufahi attributed improvements in teacher knowledge and practice to PLMP, reporting that both the **mentoring and peer learning components of PLMP are effective in supporting teachers to improve and make changes to their practice**. One school leader in Manufahi reported that most teachers within their school have improved their teaching practice, and attributed this change to PLMP:

...with the presence of this program...75 percent of teachers have had a change with their preparation, their implementation of the curriculum, their teaching skills...

A teacher in Aileu mentioned immediate feedback from her school leader helped her to improve her teaching. Another teacher elaborated:

...if we make slight mistake, then they will ask us to meet them later at the office. The mentor and the director will give us input to fix our teaching method. We appreciate this because they remind us about things that we forget to implement. This is helpful.

Multiple teachers discussed how their ability to manage classrooms has improved since learning through PLMP a variety of skills and techniques to engage and organise students. One teacher in Manufahi highlighted the introduction of music, games and student presentations as proactive approaches to managing classes.

A number of respondents in both municipalities reported that **school leader and mentor support has helped teachers develop skills in preparing lesson plans and adapting materials that might not be available at their schools**. Overall, teachers said that the lesson plans and guidelines in the new curriculum provide 'a map' for them to improve their practice. School leader and mentor support is important in helping teachers to prepare and adapt their lessons and resources.

Respondents in both municipalities reported that **mentor observations and feedback enable teachers to immediately address challenges they experience in the classroom**, through identifying and discussing examples of good practice, capacity gaps and targeted interventions to support improvement.

Teachers, school leaders and mentors emphasised the value of mentoring and peer learning in supporting teachers to understand how to use lesson plans. Additionally, multiple respondents discussed how PLGs help address knowledge gaps by providing a forum for teachers to share knowledge on how to teach in multidisciplinary settings. PLG teaching simulations were raised as particularly helpful for improving teaching quality, as they provide an opportunity to observe and learn from each other. One Manufahi teacher reflected:

...if some of the subjects are difficult and we don't really understand, we will ask the person who knows about this...we collaborate.

School leaders and teachers in both municipalities suggested **PLMP effectively supports teachers to incorporate student-centred approaches into their practice**, through encouraging active participation of students. The incorporation of 'discovery learning' was provided as an example. One teacher in Manufahi explained:

We take them outside to look at the school environment, then we come back inside and have a discussion together. We have a discussion together and then each group presents.

A number of school leaders and teachers said that they have shifted their practice from being teacher-centred to student-centred such that students are more active participants in the learning process. A respondent explained student-centred as a shift from classrooms where teachers recite lessons, to classrooms where students are encouraged to ask questions of the teacher and engage in group-based activities.

Finally, respondents also said that **PLGs provide an opportunity to discuss teaching practice and develop an understanding of lesson planning in the new curriculum**. A school leader in Aileu explained that PLGs are one way of transferring knowledge and improving practice. One teacher reflected on two elements that have supported her knowledge of teaching, 'I learn from PLMP and from PLG, I learn from those two ways.'

Beliefs and attitudes towards teaching

Key findings

Finding 1. The training and support from PLMP has contributed to changes in beliefs and attitudes towards teaching, in particular improvements to teacher self-confidence.

Finding 2. Reading the manuals and following the lesson plans outlined in the new curriculum helps teachers develop confidence in knowing how to teach the students.

Finding 3. Mentor support and peer learning helps teachers feel more prepared and increases their sense of responsibility.

Discussion

Multiple respondents in Aileu and Manufahi reflected that **PLMP has contributed to changes in beliefs and attitudes towards teaching, and in particular improvements to teacher self-confidence**. One school leader observed that guidance and support provided through PLMP has supported teachers' confidence in the classroom. This has strengthened their ability to manage classrooms and deliver creative lessons, subsequently improving student engagement and interest in lessons:

...before the PLMP program was implemented, sometimes when they taught they weren't confident because they didn't fully understand the lesson plans... they are now teaching with more confidence because they can do good preparation for the lesson plans...

A teacher in Aileu added:

Since 2016, I feel more confident as I gain new knowledge. And I can also feel that, it's not only the student, but I am as their teacher has also moved one more step.

A number of respondents discussed their impressions of how PLMP has supported their improved confidence and attitudes about teaching. Teachers noted that **reading the curriculum manuals and following the lesson plans helped with their confidence in knowing how to teach the students**. Multiple teachers reported they ask school leaders for help with lesson planning or other classroom tasks, and that collaboration with each other improves their confidence in teaching. One teacher elaborated:

I am motivated to share my knowledge (with) the students. If there is any difficulty I will ask the coordinator and also have some communication with the students. I collaborate with others to maintain my confidence.

Some school leaders said they observed teachers working harder to develop lessons. A school leader said that with his support:

The teachers try hard so the students can get the benefit from what the teachers have transferred to the students.

Additionally, respondents advised the mentoring component of PLMP has the potential to increase teacher motivation, provided that critical feedback is effectively communicated. Multiple teachers **agreed mentor support and peer learning have helped them feel more prepared, and increased their confidence and sense of professional responsibility**.

A school leader advised one factor that limits teacher motivation is the absence of formal recognition of staff performance. One suggestion was to provide certificates of achievement to recognise individual efforts to improve teaching quality.

Teacher professionalism

Key findings

Finding 1. Improved punctuality and attendance by teachers and school leaders contributes to teacher professionalism.

Finding 2. PLMP supports teachers to be more prepared for classes.

Discussion

A number of respondents in both clusters said with the commencement of PLMP, they observed **improved punctuality and attendance by teachers and school leaders, and that this contributed to teacher professionalism**. Mentors reported they observed teachers and school leaders arriving at school early or on time, and that teachers were absent less often:

But with this program, because we go early, sometimes at 7.30 we are already at the school. So we aren't there to do an evaluation of their punctuality, but we work in this way and so they also feel that, "oh they come early and so we need to come even earlier." This is what I've seen over time while implementing this program.

Despite the challenges of limited classroom resources and deteriorating infrastructure, respondents said teachers still worked hard with limited resources to teach their students. An inspector observed:

They work hard despite limited resources. For example (if) a teacher covers two classrooms, then they cannot reach the objective to teach for 50 minutes per subject. Although they work hard, resources are insufficient.

A large number of respondents in Manufahi reported that **PLMP has a tangible impact on teacher professionalism including increased efforts to prepare lessons and didactic materials in advance, and improved punctuality and classroom management**. Multiple respondents attributed improvements in teacher punctuality to the presence of observers. One mentor reported improved teacher punctuality has also influenced school leaders and students' timely attendance:

When we mark their attendance, they are, well it's woken them up to coming to school early, and that's also for the school managers, the teachers and the students.

School leadership

Key findings

Finding 1. The Leaders of Learning program helps improve understanding of instructional leadership and empowers leaders to become more actively involved in improving teaching quality.

Finding 2. PLMP supports improved teaching quality and student learning through classroom observations and supporting teachers with professional development.

Discussion

Multiple respondents from both locations observed school leaders have increased engagement in classroom activities and introduced classroom observations and feedback since the implementation of PLMP. Multiple respondents emphasised **the leaders of learning program has improved understanding of instructional leadership**. A mentor observed that PLMP has strengthened school leadership capacity by changing fundamental perceptions about the role of school leaders:

...it meant that it was putting another hat on their heads... the ability to increase the capacity of school leaders beyond administration... demonstrating to school leaders how they could contribute to the quality of school teaching and how they would measure the quality of teaching...

School leaders reported **the leaders of learning program empowered them to become more actively involved in improving teaching quality**, through an improved understanding of lesson planning, how to collaborate with teachers, and effective observation and constructive feedback techniques. Teachers also confirmed this change toward instructional leadership has had a positive impact on teaching quality.

Educational technology

Key findings

Finding 1. PLMP educational technology contributes to efficient information sharing and effective classroom observations.

Finding 2. Tablets distributed to school leaders as part of PLMP are an important part of classroom observation and teacher support.

Discussion

Multiple school leaders in Aileu and Manufahi highlighted **the educational technology component of PLMP as a tool that facilitates efficient information sharing and effective classroom observations**. Having immediate access to the curriculum, lesson plans and materials enables leaders to accurately monitor lessons and undergo a structured review process with teachers. Additionally, multiple leaders advised the tablets have supported their school administrative function through facilitating report writing and submission to the Ministry of Education.

Multiple respondents said that **tablets distributed to school leaders as part of PLMP are an important part of classroom observation and teacher support**. Tablets enable school leaders to observe, document and provide feedback on teaching practice, as well as upload their observations to a central location, as described by an Inspector:

The advantage is for the observer and teachers because all the materials are in the tablet, the feedback works well because everything is in the tablet.

At the same time, some school leaders said that they still needed more training to effectively use their tablets.

3.1.3 To what extent does the PLMP support the effective implementation of Timor-Leste's National Basic Education Curriculum?

Context

Inadequate infrastructure and lack of classroom resources are some of the challenges Aileu schools face in effectively implementing the new curriculum. In some schools, more than one language is spoken by students in the classroom. Many respondents noted it was also difficult to fit five, 50-minute subjects into a school day for children in Grades 1 to 3.

In Manufahi, a number of identified challenges within the school context have the potential to hinder the effective implementation of the National Basic Education curriculum including infrastructure and resourcing, language barriers and ambitious curriculum content.

While infrastructure and system-wide challenges are not within the scope of PLMP's responsibilities, PLMP supports schools in overcoming some of these challenges to implementing the new curriculum in Aileu and Manufahi.

Access to the curriculum and classroom resources

Key findings

Finding 1. PLMP educational technology increases access to online resources, alleviating some resource constraints.

Finding 2. Access to the curriculum through tablets enables school leaders to monitor and observe teachers and their delivery of lessons against the lesson plans.

Discussion

Many respondents reported that not enough teachers and facilities, including classrooms and offices, impact the efficient implementation of the new curriculum. The impromptu formation of multi-grade classes prevents delivering lessons as intended.

Multiple respondents further reflected that limited access to didactic materials and classroom resources are barriers to delivering classes according to the curriculum. One teacher explained:

For us the difficulty is with the curriculum when it says something, but then we look for the books and we don't have them.

One mentor suggested PLMP mentors have helped address this issue through encouraging resourcefulness. A teacher confirmed this:

...the mentor came and said we are to use a story...but we don't have this book here. So they said don't worry, if you don't have it just take any book and continue and read it to them.

Multiple school leaders highlighted that **PLMP educational technology helps fill this gap by increasing access to online resources such as the curriculum and lesson plans**. They also identified the tablets as an enabling factor that supports leaders to monitor teaching quality more effectively. The resources provided on the tablets allow school leaders to observe

teaching and monitor directly against the curriculum and lesson plans:

I think the iPad technology is really great... In the past, they [teachers] had their plan and we went to observe, but we didn't see anything. They could say something wrong and we wouldn't know because we didn't follow it closely... But now, no. They know and we also know. So, it's really supported us.

A range of respondents indicated that while a lack of physical classroom resources such as books and materials are challenges for planning and practice, tablets enabled access to lesson plans and materials for teaching. One teacher reflected:

If the coordinator takes them (complementary materials) from tablet, then we send to the laptop to read and prepare the lessons.

A number of school leaders explained this allows them to **know which lesson plan teachers are teaching and to observe their teaching against the lesson plan**. School leaders and inspectors said that tablets have provided them with online access to the complete curriculum materials and lesson plans. A school leader said this has enabled change because he would not have had access to these materials prior to the implementation of PLMP:

Yes there is a change...The good thing is that everything is in the tablet, we can read many big books in this small tablet. When the teachers find difficulty, we explain to them, because everything is in the tablet.

At the same time, some school leaders commented that tablets should be distributed to all schools so that all teachers can have access to the new curriculum. Respondents noted that tablets are particularly useful in rural areas where schools may not have access to as many physical resources as schools closer to more urban areas.

Teacher support – materials

Key findings

Finding 1. Support from school leaders and PLGs help teachers to adapt lesson plans and materials in the new curriculum.

Finding 2. PLMP's tablet and leadership components have led to changes because of access to complete lessons and support to implement those lessons.

Discussion

Multiple respondents in Aileu said that **support from school leaders and PLGs help teachers to adapt lesson plans and materials in the new curriculum**. A number of teachers elaborated that the PLGs were helpful to understanding the expectations of the new curriculum.⁹ When asked to reflect on what part of PLMP support was helpful, one teacher said:

Now, the national (new) curriculum is really helpful because it contains lesson plan. What we do not understand, we discuss together during peer learning group. We have (a) discussion and do simulation there; as a result we understand and we apply it in this school.

⁹ It should be noted that as of September 2018, the Aileu cluster visited by the research team had not held a PLG in one year.

Another teacher reflected on how he learned from school leaders to creatively adapt or substitute materials in lessons:

The curriculum say show this show that [sic]. If we do not have the didactic (supporting) materials, we cannot do anything. If they ask us to teach about elephant, where are we going to get them? So we have to change to something else.

While most teachers in Manufahi reported they were satisfied with the new curriculum, they also expressed difficulties in effectively preparing for and delivering five, 50-minute subjects in a school day. However, many teachers credited lesson plans with easing their workload and supporting the implementation of the new curriculum. Multiple **respondents accredited PLMP with helping ensure the teachers utilise lesson plans correctly**. One mentor advised:

...until now, the teachers didn't really, well they took the lesson plans home and then brought them back to school, but they didn't do any preparation. But through the PLMP program... they are now active and creative in preparing their lesson plans before they go and teach.

A number of respondents said that **PLMP's tablet and leadership components have led to changes because of access to complete lessons and support to implement those lessons**. Respondents said that having access to complete lesson plans and a complete new curriculum was a significant change from the old curriculum. Many teachers said that access to the lesson plan through the school leader helps them prepare their lessons.

Teacher support – mentoring

Key findings

Finding 1. Classroom observations support school leaders to help teachers implement the new curriculum.

Finding 2. PLGs support teachers to effectively implement the curriculum through facilitating the preparation, review and presentation of lessons, receiving feedback, sharing challenges and workshopping solutions together.

Finding 3. Mentor support of school leaders is critical to leaders learning how to support teachers.

Discussion

Respondents in Aileu emphasised that **classroom observation of teachers is an important activity that supports school leaders to help develop teachers' teaching practice to implement the new curriculum**. A mentor explained:

The most impact for the teachers is doing the direct observation in the classroom...This is directly in the classroom...the implementation is in the classroom.

Multiple teachers reported the observation and feedback component of PLMP as enabling teachers to receive accurate feedback on how aligned their practice is with the curriculum. School leaders agree the observation and feedback component has successfully supported teachers to implement the curriculum, by helping them teach to the lesson plans. One mentor suggested a way to increase the level of teacher support would be to provide curriculum

training for the mentors, which would increase their capacity to further support teachers to understand curriculum content.

A large number of respondents in both municipalities including school leaders, mentors and teachers emphasised **the value of the PLGs in supporting the effective implementation of the curriculum through facilitating the preparation, review and presentation of lessons, receiving feedback, sharing challenges and workshoping solutions together**. One teacher highlighted teaching simulations as helpful to ensuring their lessons are aligned with the curriculum:

...it helps because when we teach and there is something that we aren't really following the plan, then our mentor can help us by giving us ideas. The directors, inspectors and other teachers can also give us ideas, they can tell us this part and this and that aren't right yet.

Another teacher highlighted that PLGs enable more experienced teachers to support those with limited experience or subject knowledge:

...for some topics if we don't know we can consult with each other... mathematics is not my area, but it's ok, the new plan helps with this and with what we don't know and we can consult each other.

Respondents also highlighted the value of school leaders and mentors reinforcing knowledge acquired from PLGs in follow up observation and feedback sessions.

In Aileu, a number of respondents suggested **PLGs are valuable in supporting teachers, especially teachers experiencing difficulty in implementing the curriculum**. During PLGs school leaders and teachers observe teaching practice, give feedback and support. As one mentor described:

We suggest to them that during the GTP¹⁰ meetings on Saturdays, they can identify the difficulties that they are facing when they teach. For example, if it's mathematics, maybe fractions or multiplication...and at the GTP on Saturday they can bring the problem up and ask the teachers who know more about this to give ideas about how to teach...We also provide assistance and help about how to teach this.

Language barriers compound the challenges experienced to implementing the curriculum. For example, one mentor observed an experienced mathematics teacher facing difficulties when delivering a lesson on calculating perimeters, because there is no direct Tetun translation for the word 'area'. Additionally, a school leader explained that relying on teaching resources in either Portuguese or Tetun language creates confusion amongst teachers and students. One teacher suggested multi-lingual resources would help address this issue, and another teacher advised the peer learning component has helped:

...if there is an example in Portuguese and we don't understand, then we ask each other, we collaborate.

Many respondents acknowledged the value of PLMP mentors in supporting school leaders to help teachers implement the new curriculum. School leaders said **that mentor support of school leaders is a component of PLMP that is critical for learning how to support teachers**.

¹⁰ GTP, or Grupu Traballu ba Professor, is Tetun for PLG, or Peer Learning Group.

Respondents reflected on a range of experiences with how the mentoring role in PLMP supported effective implementation of the curriculum:

- Mentors help school leaders with tablets and PLGs
- Mentors demonstrate to school leaders how to do observations and give feedback
- Mentors give positive and encouraging feedback to school leaders and teachers
- Mentors may have different approaches, but are focused on the objectives of PLMP
- Mentors have a different style than inspectors; the PLMP style of mentoring is classroom-based and confidence-building for teachers, especially for teachers in rural areas who have never had any kind of observation visit.

3.1.4 To what extent does teacher involvement in the PLMP lead to improved learning outcomes for Timor-Leste students?

New teaching methods introduced by PLMP is reported to have increased students' interest in lessons and engagement in the classroom. The lack of school feeding programs and the distance many rural students need to travel to schools, however, present ongoing challenges in improving student learning outcomes.

Limited access to school feeding programs and long travel distances to schools are persisting challenges to student attendance and participation in Manufahi and Aileu. Despite these barriers, PLMP has helped improve student outcomes, particularly attendance and interest in lessons.

Student learning outcomes

Key findings

Finding 1. Some observed indications of improvement in reading in Grades 1 and 2 at some PLMP schools.

Finding 2. New methods, including asking students questions and having students work together, help students become interested in the learning process.

Finding 3. Student literacy outcomes are observed to have improved.

Discussion

A number of respondents said they observed an **improvement in reading in Grades 1 and 2 at some PLMP schools**, and related this improvement to methods they learned in PLMP.

A number of teachers elaborated that **new methods, including asking students questions and having students work together, help students become interested in the learning process**. The following quotations are a range of respondent observations about how PLMP might be related to student learning outcomes:

We're just starting to teach reading better. I saw one of the best (Tetun language lesson)...Children were reading aloud, they were reading silently, they were reading to each other and they had a library. (Mentor)

It makes difference because we use this method. PLMP program make the students have great understanding, even the first grade students can already read. But at other schools, students still do not know how to read. (School coordinator)

I learn from PLMP and from PLG. I learn from those two ways...I should do something more so they can read by themselves. It's not that I read it first and they just repeat what I have read. I point to the words and they read those words by themselves. They try to spell and read each syllable, they try to read alone. In the first grade, about five to six students can already try to read on their own. (Teacher)

Respondents observed that **student learning outcomes have improved since the implementation of PLMP**, particularly for literacy. One mentor identified a direct correlation between improved teaching practice and improved student learning ability. The Inspector observed:

...when this program hadn't been implemented yet, they couldn't read and write. Since this program has been implemented the Year 1s can read, can write, can tell stories and draw pictures.

Student attendance, wellbeing and interest in lessons

Key findings

Finding 1. Methods from PLMP mentors – asking students questions, having students work in groups, lesson preparation – have positively impacted students' attendance and interest in lessons.

Finding 2. The lesson plans in the new curriculum encourage students to ask questions and speak up in class.

Finding 3. Improved teacher punctuality increases student attendance.

Finding 4. Improved teacher confidence, creativity, preparation and classroom management leads to improved student interest in lessons.

Finding 5. Creative, student-centred and discovery learning approaches lead to improvements in student happiness and confidence.

Discussion

A few respondents offered observations that the methods they learned through PLMP made students more interested in coming to school. A school leader said that teachers were better prepared, and this made the students willing to come to school and learn.

Some respondents reflected that **methods they learned from PLMP mentors – asking students questions, having students work in groups, lesson preparation – have positively impacted students' attendance and interest in lessons**. Some teachers observed that their students are more creative and happier in school with one teacher commenting, 'They are really active during the learning process.'

A number of respondents said that **the lesson plans in the new curriculum encourage students to ask questions and speak up in class**. Some teachers explained that students are more active in class because of methods learned with the introduction of PLMP. Teachers stated that the new curriculum was practical and activities engage students outside the classroom. Some respondents noted that students go to the front of the class and write on the board when they are asked by the teacher.

While teachers and school leaders said that student-centred learning methods positively impacted student interest in lessons and attendance, a number of respondents noted attendance challenges beyond the scope of PLMP. These challenges impact student learning. As outlined by a teacher:

They come today and they are absent tomorrow. And when they come again, it takes very long time for them to understand lessons that we deliver.

Some teachers and school leaders mentioned that student attendance was an ongoing problem, particularly if the school did not have a school feeding program.

Multiple respondents reported that **improved teacher punctuality as a result of PLMP has had a direct impact on improved student punctuality and attendance**. One school leader made a direct comparison with non-participating schools, noting that students at these schools are often not ready to begin classes by the start of the school day.

Multiple teachers reflected that implementing **student-centred and discovery learning approaches have led to improved student engagement, behaviour and interest in lessons**. A school leader explained this is a direct response to teachers becoming more confident and creative, better prepared and managing classes more effectively:

...since the PLMP program has been implemented...they are creative in their preparation, in doing good preparation for teaching... they are confident in teaching... and they are also creative in asking questions to the students... They can also do class management...the students also don't feel tired so they can pay attention better to the material, they are happy because the teacher has the skills to manage and organise the students in the room.

Multiple respondents reported that **changes in teaching practice towards more student-centred approaches, and better treatment of students, have led to children seeming happier and more confident at school**. A mentor observed:

...they are brave enough to come up the front. The teachers ask them to sing, and now they can sing, they are brave enough to come and write on the board.

3.1.5 Equity

Disability

Respondents in Aileu offered **general acknowledgement that there were students with disabilities in schools, and that the approach to supporting those children with disabilities is by inclusion in the classroom**. One school leader elaborated:

We inform the parents that education is inclusive, meaning we do not discriminate the students, as all children are equal. But some parents do not want to bring their children here, so in general we do not have students with disability.

Multiple respondents confirmed many children with disabilities do not attend school in Manufahi. One respondent ascribed this to a limited understanding amongst parents about disability and education. School leaders and mentors observed that **teachers endeavour to include students with disabilities, but shared that significant challenges are faced due to a capacity gap and limited awareness of inclusive practice.**

Teachers reported that working with one student or two students with disabilities in their classrooms takes time, but that they did not have specialised training in working with students with disabilities. Other respondents said that there were very few students with disabilities in their schools, adding that children with disabilities are often kept at home by their families. An inspector said that students with disabilities are put into groups with other students, but teachers have not received extensive training through PLMP.

Most teachers in both municipalities explained their approach to engage students with disabilities involves providing additional support and attention. Example strategies put forward included reducing physical barriers for students with sight and hearing impairments by seating them at the front of the class, writing in large script on the board, and speaking loudly. Whilst **teachers demonstrated a readiness to adapt learning environments to reduce barriers for students with physical disabilities**, multiple teachers emphasised significant challenges and limited knowledge on how to effectively support students with cognitive and intellectual disabilities.

Gender

In Aileu, a number of respondents said that they recognised that girls and boys were equal. Respondents said that **recognition of gender equality is written in the curriculum, and often use the example of calling on both boys and girls equally in the classroom.** Teachers also use the example of combining boys and girls to work in groups.

One school coordinator recalled receiving training from PLMP about equity principles and the need to recognise every student's rights:

About democracy, everyone needs to participate in this kind of discussion; about inclusiveness. In this school everyone has the same rights, whether they have disabilities or not, females and males have the same rights. These principles are what we obtained, and we can implement. We received training, so we implement what we acquired.

In Manufahi, multiple school leaders recognised that boys and girls have an equal right to participate in the classroom, and discussed gender inclusive strategies currently being implemented. This includes active encouragement of boys and girls to work together in groups, and selecting both boys and girls to present to the class equally.

One mentor confirmed **teachers encourage equal participation of girls and boys**, and made a direct link to the introduction of student-centred approaches which is being applied to all students regardless of gender. Another mentor observed some teachers are not incorporating equal gender participation into their practice, and advised mentors are supporting those teachers to be more inclusive.

Multiple teachers interviewed demonstrated an awareness of gender equality and **attempts to encourage equal participation and engagement of boys and girls in the classroom.** One

teacher was not only aware of gender equality in education, but also demonstrated an attempt to teach gender equality to students:

I always say to them, “when you come to school, girls and boys are the same, you are all students”.

Multiple teachers reported that classroom participation and performance is higher amongst girls compared to boys, noting that girls also demonstrated higher levels of confidence and ability to focus on lessons.

3.1.6 School and system outcomes

The following sections discuss emerging evidence on school and system level outcomes by municipality.

School level outcomes – Aileu

A number of school leaders suggested that **learning to do observations has improved their ability to support teachers**. This school level change was explained by a mentor:

Yes, there was indeed a change, because when they did observations they also were more proactive in this program. They could do observations and improve the teachers at their own school.

Some respondents acknowledged PLMP helped develop their instructional support capacity so that they had developed skills by spending time in classrooms supporting teachers. Respondents also acknowledged that this expanded their leadership role beyond administration only, and this resulted in an increased workload for school leaders.

School leaders highlighted the multiple roles they have in their work. At small schools, school leaders may often be teachers, in addition to their administration and support of teachers in the classrooms through observation and feedback.

A number of respondents acknowledged that **tablets have enabled school leaders to more efficiently support the teachers in their schools through observation and access to curriculum materials**. As an inspector said, ‘everything is in the tablet’.

Some school leaders said that they felt more ‘competent’ as an observer with the tablet. At the same time, some respondents said that they needed more training on tablet use, their tablets were not correctly functioning, or there was poor internet connection.

Multiple respondents said that **PLMP has supported schools in working together through the PLG**. A school leader elaborated that PLGs enabled teachers and school leaders to support each other in addressing questions or difficult-to-implement lesson plans. School leaders recalled a PLMP training module focused on supporting leaders to lead a learning process in schools.

School level outcomes - Manufahi

A number of respondents observed that **PLMP has supported school leaders to develop an understanding of instructional leadership, and strengthened their capacity to support teachers to improve teaching quality**.

The Municipal Director agreed, noting the most significant changes to school leadership since participating in PLMP is an increased focus on teaching quality. Multiple school leaders

reflected on how the Leaders of Learning program shifted their approach towards long term planning around improving teaching practice, and has helped build their capacity to be more engaged at the classroom level. One school leader explained:

I've started thinking about the future. When I go into this classroom, what am I going to find? I'm always thinking about this. This program is alive, it keeps pushing me to think...after I've participated in this program, my thoughts are about how to run a good classroom.

A mentor confirmed they have observed the knowledge acquired from the Leaders of Learning program being effectively implemented at schools. The inspector observed significant differences in leadership between PLMP participating schools and non-participating schools in Manufahi, and further suggested PLMP be implemented across the entire municipality so that all schools can benefit from this program. However, one mentor observed that some school leaders experience difficulties in managing classroom observations in addition to their teaching responsibilities.

Multiple school leaders and mentors reported the **educational technology component of PLMP has made a significant impact on school leadership capacity, particularly in relation to monitoring and reporting on teaching quality**. Additionally, leaders are able to utilise the tablets for reporting purposes by typing notes and sending them directly to the Ministry of Education, Youth and Sports. The tablets also provide guidance to support school leaders on reporting processes, making reporting requirements more manageable. According to one mentor:

When they observe now, they put it straight into the program and it goes to the Ministry. This has really facilitated the school managers so their work is easier. Not writing it all out by hand, but using a tablet to record it.

School leaders requested an increase in tablet functionality and additional training, in order to better utilise the technology. Suggestions included installing Microsoft Excel and Word, and training on the GPS function to enable leaders to mark their geographical location when reporting.

System level outcomes – Aileu

A number of respondents said that **the availability of monitoring data gives school leaders more confidence in their job**. A school leader elaborated that he is able to monitor the number of observations conducted in his school cluster, as well as support school coordinators at branch/filial schools in his cluster.

Multiple respondents acknowledged that **after a 12-month PLMP rollout had completed in their cluster, observations and PLGs continue for another six months, but there is a decline in the frequency of observations and attendance at PLGs**. One mentor called this a process of 'consolidation', and noted that school leaders continue to upload their observations to the Eskola site.

A number of school leaders mentioned that **all school leaders and teachers in the country should be able to access PLMP**. Respondents said this should be guided at the national level. A school leader said:

The top should clearly define the program to bring changes to the country, meaning the changes through training, changes of our awareness about what teachers should do. This is what we can do, but we cannot do it alone.

Respondents also mentioned other schools in their municipality who do not have the same access or training because PLMP has not been implemented in all schools.

System level outcomes – Manufahi

Multiple respondents reflected on the importance of school collaboration as an effective approach to knowledge sharing. One teacher credited **the PLG intervention for strengthening relationships between schools**, and made a direct link to how this facilitates knowledge sharing:

In the past some of the teachers didn't really know each other. But with this program, it's been really good. We're together, we know each other, we can share our knowledge with each other.

Multiple teachers reported that **PLMP has led to improved relationships with parents**, highlighting parents have now improved their communication with schools in relation to explaining why their children are absent, in response to improvements to teacher professionalism.

According to the Inspector and Municipal Director, **PLMP has also helped strengthen capacity at the municipality level, by enabling inspectors to effectively monitor school management, and provide feedback for improvement.**

3.2 Sustainability

The ability of schools to sustain inputs to improve teaching quality, support teachers to implement the new curriculum and improve student learning outcomes is a significant challenge. Respondent perspectives on the long term outlook of PLMP outcomes varied within and across the sampled municipalities. Aileu respondents were able to provide insight into how effective the impact of PLMP has been since the conclusion of the Phase 2 investment. Manufahi respondents were able to predict potential risks to sustainability based on their current experience of PLMP as participants of Phase 4.

3.2.1 Individual capacity and motivation

Aileu respondents said **the quality of training offered through PLMP may contribute to sustained improvements in teaching quality.** The Aileu Municipal Director reflected:

They learned about lesson plan, that's a reference that they will not forget. Because at first they did not know how to do lesson plan...They did not have any knowledge about the pedagogy. What they learned becomes knowledge for them to be used in the future, especially for the young generation...

The Manufahi Inspector had an optimistic outlook on sustainable outcomes, predicting **PLMP participating schools will achieve long-term benefits due to developed school leadership capacity:**

I guarantee that the people who have participated in this program over the last nine months, they will continue it... the leaders now have an understanding about how to lead a school.

One risk factor identified by a number of respondents in Manufahi was commitment at the individual level. They predicted that **once program investment ends, ongoing participation will depend on how motivated individuals are to continue**. One school leader expressed concerns that teacher motivation may decrease when the mentor observation component ends. This concern was substantiated by a number of Aileu respondents who noted the end of PLMP support created challenges for school leaders and teachers. One Aileu school leader reflected:

But when the PLMP ended, we faced difficulty, especially for the central school, and from the graphs some of the schools are still not functioning well. It is because the PLMP's mentors already stopped observing.

Another school leader in Aileu said he thought **teachers were less prepared, and there was less enthusiasm to attend PLGs after the end of PLMP**. Other respondents said they missed the ongoing support and updated information that mentors provided as part of PLMP.

3.2.2 Leadership changes

Another risk factor identified by a Manufahi inspector was the potential impact of leadership changes on program sustainability. Other Manufahi respondents agreed, predicating that **when participants of the leaders of learning program leave their school, they could create an institutional knowledge gap**. Multiple respondents suggested expanding training to include teachers would help to ensure sustainability, as it would help to prepare them for leadership changes.

Aileu respondents agreed that **ongoing mentoring and training for teachers and leaders is important to promote continuous professional learning and to address staff turnover**, and ensure intellectual and experiential knowledge developed through PLMP can be rebuilt within the school. A mentor reflected that **supporting leaders and teachers to take ownership of the program could increase the likelihood of sustainable outcomes**.

3.2.3 Continued and expanded support

Multiple respondents across both municipalities expressed their wish for PLMP to continue to provide ongoing support, and **to expand program reach to include all schools and teachers within the respective municipalities**. Aileu respondents advised ongoing mentoring visits and PLGs would help support the sustained improvements to teaching quality by promoting ongoing professional learning and collaboration. One mentor advised:

...the work doesn't have any continuity... We'd like to suggest that if this program is running, the people accompanying, we are recruiting people, give them a contract for one year, and they are professionals...To improve it, so the program is a success, they should be maintained in the District where they are working.

A Manufahi teacher suggested inviting more teachers to PLGs would help ensure sustainability by increasing knowledge sources to promote peer learning.

Availability of resources to support program activities was identified as a potential risk to sustainability. In Aileu, PLGs have not been conducted in the year since PLMP concluded its rollout. This was identified as a barrier to continuing improvements to teaching quality:

...when we visit the schools, the teachers are still lacking in this or that; we need to put them together to share ideas or opinions with each other, it's better together.

Multiple Manufahi respondents identified the cost of transport as a continuing challenge that could threaten program sustainability, as it is a barrier for inspectors and school directors to conduct school visits and for teachers to attend PLGs.

One mentor suggested **incentivising PLGs through provision of transportation and refreshments** for teachers who travel long distances would help ensure continued participation.

3.3 Summary

The first case studies for the PLMP multi-year study uncovered detailed information about the kinds of affordances and constraints that work to support or disrupt program success. This research provides insight into the broad research question: **To what extent does this aid investment produce improved teaching quality and improved student learning?**

Two school clusters were investigated during the first case study series: Daisoli cluster (Aileu) and Dotic cluster (Manufahi). These two clusters were selected to represent different phases of the PLMP implementation. PLMP was implemented in Daisoli as part of Phase 2 from August 2016 and had concluded prior to the case study data collection. In contrast, PLMP was introduced in Dotic as part of Phase 4 in February 2018 and was ongoing during the time of the case study data collection. The difference in PLMP rollouts in each cluster enabled the team to gain insights particularly about program sustainability. Manufahi stakeholders were experiencing the real-time benefits of PLMP, while Aileu stakeholders were facing difficulties with building on the skills they learned from PLMP over a year prior to case study data collection.

Four propositions regarding the impact of PLMP are suggested by the case study analyses:

1. PLMP supports improved teaching quality in Timor-Leste through:
 - Improving understanding of instructional leadership and empowering leaders to become more actively involved in improving teaching quality
 - Enabling teachers to immediately address challenges experienced in the classroom
 - Supporting teachers to utilise lesson plans, prepare didactic materials and incorporate student-centred approaches into practice
 - Improving teacher confidence and increasing teachers' sense of professional responsibility
 - Improving punctuality and classroom management
 - Encouraging teachers to adopt principles of positive discipline in the classroom.

2. PLMP supports the effective implementation of Timor-Leste's National Basic Education Curriculum through:
 - Facilitating a peer learning process for teachers to prepare, review and present lessons, provide feedback, share challenges and workshop solutions
 - Enabling efficient information sharing and effective classroom observations
 - Supporting teachers to effectively utilise lesson plans
 - Enabling teachers and school leaders to access lesson plans and materials for teaching, alleviating some resource constraints. At the same time school leaders, teachers and students continue to face substantial constraints to effective teaching and learning (infrastructure, transport, teaching and learning resources, supply of qualified teachers, school feeding, and linguistic diversity).
3. The extent to which teacher involvement in PLMP leads to improved learning outcomes for Timor-Leste students cannot be determined at this early stage and is an area for further investigation. There are some indications that student interest in lessons and student attendance has improved because of improved teachers' confidence, preparation and classroom management skills as a result PLMP. Some stakeholders observed improved student literacy and reading outcomes in their schools after methods they learned during PLMP. While these results are encouraging, they should be treated with caution at this early stage.
4. There are risks to sustainability, including:
 - Limited capacity and motivation to continue activities without the presence of active program interventions such as ongoing support from mentors or professional learning after the completion of a rollout of a phase
 - The absence of succession plans to manage institutional capacity gaps caused by leadership transitions
 - Limited resources to support program activities for school observations and PLGs.

4 Student learning outcomes in Timor-Leste – findings from EGRA and CBA

In 2017, the World Bank conducted assessments of students in five municipalities of Timor-Leste. The assessments used were the Classroom Based Assessment (CBA) and the Early Grade Reading Assessment (EGRA). The CBA is linked to the new curriculum, which was introduced into schools in Timor-Leste from 2015, starting with Grades 1 and 2. The CBA tests Grade 2 and 3 students' basic reading and mathematics, with the Grade 3 students also tested for their understanding of Tetun and Portuguese words.

PLMP has been operating in schools in the five municipalities in Timor-Leste since 2016. Data were gathered from samples of students in Grades 2 and 3 in each participating school. Testing

took place in February 2017 after the beginning of the new school year. The assumption was that children beginning Grades 2 and 3 were educationally equivalent to those who had just finished Grades 1 and 2 respectively. These Grade 2 students, will have completed a full year under the new curriculum and PLMP. The numbers of schools in each municipality are provided in Table 1. In most municipalities, there was an equal number of non-PLMP schools in which students in Grades 2 and 3 were assessed in the same manner as in the PLMP schools. All schools in Atauro were covered by PLMP.

Table 1: Counts of schools and students in each municipality assessed in 2017, by participation in the PLMP

Municipality	PLMP				Non-PLMP			
	Grade 2		Grade 3		Grade 2		Grade 3	
	Schools	Students	Schools	Students	Schools	Students	Schools	Students
Aileu	10	165	10	153	10	185	10	212
Atauro	10	98	10	142	0	0	0	0
Dili Remote	10	322	10	326	10	407	10	456
Liquiça	20	496	20	584	18	568	18	564
Manatuto	20	337	20	362	20	456	20	493
Total	70	1418	70	1567	58	1616	58	1725

Source: Original data provided by The World Bank (2018)

4.1 Assessments used

The CBA was derived from the content of the New Curriculum and thus measures the extent to which the content of that curriculum has been mastered. Students were assessed on basic reading, mathematics, and Tetun and Portuguese language (Grade 3 only). The CBA was administered to all 6326 students in the target classes in all schools in both PLMP and non-PLMP schools. This assessment was conducted in Tetun, the language of instruction in all schools.

The EGRA was developed by RTI International under contract to the United States Agency for International Development (USAID). It was designed as ‘a simple instrument that could report on the foundation levels of student learning, including assessment of the first steps students take in learning to read’ (RTI International, 2015, p. 7). The EGRA implemented in Timor-Leste in 2017 used selected components of the EGRA which had been used previously in 2009 in Timor-Leste, to allow the examination of differences between 2009 and 2017. EGRA is labour-intensive, as it is administered to each child individually in Tetun. The six components of the EGRA used in this assessment were Letter Knowledge, Word Reading, Non-word Reading, Text Reading, Reading Fluency and Reading Comprehension.

Researchers and evaluators can choose which components of the EGRA are to be used, so there is no total score as part of the instrument. Further, the EGRA is not a scaled assessment, as it would need to be calibrated for each country in which it is used. As such, all results are reported as the number of items answered correctly. Similarly, counts of correct responses are reported for each component of the CBA, although that assessment does include a total

score, which is a sum of the component scores. Because these assessments do not change over time, they can be used to determine whether there is a difference between cohorts.

For both assessments, zero scores are reported separately and are not included in the calculation of means, as is current practice in less-developed countries. A zero score can be obtained by a student not answering any question correctly, or by a student not responding to a question at all.¹¹

4.2 Results on the CBA

All analyses of the components of the CBA were conducted by removing students with zero scores on that component. This analysis also reports the number of zero scores as a percentage of all students assessed with the CBA. In addition, all analyses were done using the raw scores — the number of items answered correctly — rather than a scale score. This does allow for comparisons between schools and groups of schools, but the impact of any differences is unknown. For example, it is not known what a difference of three letters correctly identified means for a student’s literacy development.

The following tables show the results on the CBA for PLMP and non-PLMP schools separately. The analyses by municipality for the components of the CBA are not included, as the number of items within each component was small. Results by municipality are reported for only the CBA total score.

4.2.1 Grade 2

For each component of the CBA, Table 2 records the number of Grade 2 students with scores above zero (Scores > 0), the number of students with zero scores (Scores = 0) and the percentage distribution of each. The third column for each set of schools shows the mean score and standard error (s.e.) for each component of the CBA, separately for PLMP and non-PLMP schools. These statistics do not include students with scores of zero.

Where there is a statistically significant difference between the mean scores for PLMP and non-PLMP schools, an asterisk (*) is shown next to the mean score. **On all three components of the CBA and on the CBA total score, students in Grade 2 in PLMP schools achieved higher mean scores than students in Grade 2 in non-PLMP schools.** These higher mean scores were accompanied by higher percentages of students receiving a score (or a lower percentage of zero scores) in letters and reading. There was no difference in the percentage of zero scores in mathematics or in overall CBA scores.

The ICC indicates how much of the variability in scores can be attributed to school differences and how much to individual student differences. For the analyses with Grade 2 students, the ICC ranged from 0.23 for reading to 0.39 for the CBA total. The range of the ICCs can be interpreted as indicating **there is more consistency among schools in the teaching of reading than there is in the teaching of mathematics**, and that the CBA total score is more highly influenced by the mathematics score compared to the scores for reading and letters.

¹¹ These are two different types of zero scores for which there is no further information available in the EGRA documentation.

Table 2: Comparison of PLMP and Non-PLMP schools on components of the CBA, Grade 2, 2017

Letters Identified					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
1319	82	8.45*	1465	130	7.10
(94.1%)	(5.9%)	(0.25)	(91.8%)	(8.2%)	(0.26)
Reading					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
1173	228	3.95*	1174	421	3.35
(83.7%)	(16.3%)	(0.12)	(73.6%)	(26.4%)	(0.13)
Mathematics					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
1297	116	8.34*	1467	136	7.62
(91.8%)	(8.2%)	(0.35)	(91.5%)	(8.5%)	(0.37)
CBA Total					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
1350	51	19.70*	1537	58	16.60
(96.4%)	(3.6%)	(0.79)	(96.4%)	(3.6%)	(0.85)

Note: Means calculated using non-zero scores only.

* indicates mean score for that group is statistically significantly different from the mean score for the other group at $\alpha=0.05$.

Source: Original data provided by The World Bank (2018).

Results for the CBA total score are presented in Table 3 by municipality. Again, asterisks indicate statistically significant differences. PLMP schools in Aileu, Liquiça and Manatuto had higher mean scores than did non-PLMP schools, and there was no difference between PLMP and non-PLMP schools in Dili Remote. The comparisons of the CBA total score are also presented in Figure 1. In municipalities where the bars do not overlap, the difference is statistically significant; where they do overlap, as in Dili Remote, there is no difference. Figure 1 also indicates that the result for PLMP schools in Atauro are statistically significantly different from results in all other municipalities in the program.

CBA total scores were also analysed by gender. There are small, statistically significant differences, favouring female students in Dili Remote and Manatuto, but these are balanced by small, non-significant differences favouring male students in Aileu and Atauro, and no difference in Liquiça, so that **there is little effect of gender on CBA total scores among Grade 2 students.**

Table 3: Comparison of PLMP and Non-PLMP schools on the CBA total score, by municipality, Grade 2, 2017

Municipality	PLMP School		Non-PLMP School	
	Mean	s.e.	Mean	s.e.
Aileu	18.039*	0.725	12.762	0.684
Atauro	25.018	0.941		
Dili Remote	19.882	0.520	20.028	0.462
Liquiça	18.787*	0.428	16.266	0.400
Manatuto	17.344*	0.508	13.456	0.436

Note: Means calculated using non-zero scores only. No students were assessed in non-PLMP schools in Atauro.
* indicates mean score for that group is statistically significantly different from the mean score for the other group at $\alpha=0.05$.

Source: Original data provided by The World Bank (2018).

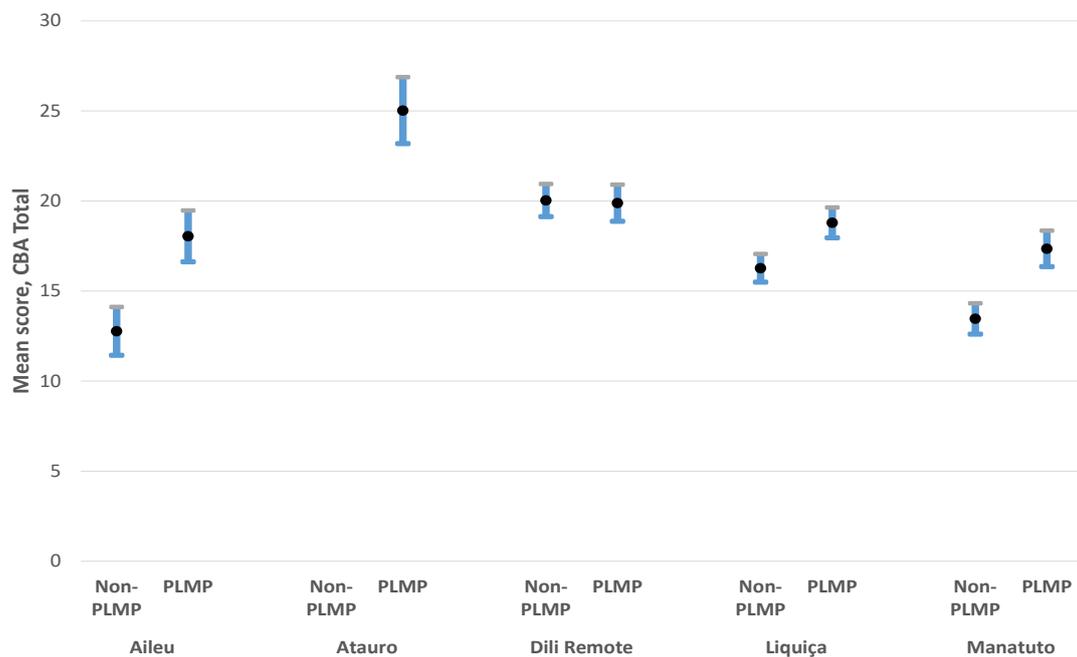


Figure 1: Mean scores and upper and lower bounds for the CBA total scores in PLMP and non-PLMP schools, by municipality, Grade 2, 2017

1.1.1 Grade 3

Table 4 records the number of Grade 3 students with scores above zero (Scores > 0), the number of students with zero scores (Scores = 0) and the percentage distribution of each. The third column for each set of schools shows the mean score and standard error for each component of the CBA, separately for PLMP and non-PLMP schools. These statistics do not include students with scores of zero. For Grade 3, the components of the CBA are different from the components for Grade 2.

On three of the four components of the CBA and on the CBA total score, students in Grade 3 in PLMP schools achieved higher mean scores than did students in Grade 3 in non-PLMP schools. There were statistically significant differences favouring students in PLMP schools for the components of Reading, Mathematics and Tetun Language, as well as for the CBA

Total. There was no statistically significant difference between the two groups of schools for Portuguese Language.

The percentage of students with zero scores in PLMP schools is different from the percentage with zero scores in non-PLMP schools on the Portuguese language component only, with a lower percentage of zero scores in PLMP schools. In the previous paragraph, it was noted that the Portuguese language component is the only component of the CBA that did not show a statistically significant difference between PLMP schools and non-PLMP schools. This indicates that there are more children who understand some Portuguese language in PLMP schools, but there is no difference between PLMP and non-PLMP schools in the level of understanding.

Results for the CBA total score comparing PLMP and non-PLMP schools by municipality are presented in Table 5. Among Grade 3 students, there are statistically significant differences between PLMP schools and non-PLMP schools in Aileu and Manatuto, but not in the other municipalities. This is represented in Figure 2, which shows that the standard error bars for the two groups of schools in Aileu and Manatuto do not overlap.

The ICCs for both Reading and Mathematics were 0.25, and for Tetun Language, 0.21. For Portuguese Language, the ICC was lower, at 0.16. Consistent with the lack of difference between PLMP and non-PLMP schools in Portuguese Language, there is only small variation among schools in students' facility in Portuguese, with greater differences among individual students.

CBA total scores were also analysed by gender. There are small, statistically significant differences favouring female students in Dili Remote and Liquiça, and a large difference in Aileu, but these are balanced by small, non-significant differences favouring male students in Atauro, and no difference in Manatuto. **Overall, there is a small, statistically significant effect of gender on CBA total scores among Grade 3 students, but this difference is substantively small as it accounts for one additional item answered correctly.**

Table 4: Comparison of PLMP and Non-PLMP schools on components of the CBA, Grade 3, 2017

Reading					
Scores > 0 (%)	PLMP		Scores > 0 (%)	Non-PLMP	
	Scores = 0 (%)	Mean (s.e.)		Scores = 0 (%)	Mean (s.e.)
1483 (95.4%)	72 (4.6%)	6.78* (0.19)	1642 (95.2%)	83 (4.8%)	6.25 (0.20)
Mathematics					
Scores > 0 (%)	PLMP		Scores > 0 (%)	Non-PLMP	
	Scores = 0 (%)	Mean (s.e.)		Scores = 0 (%)	Mean (s.e.)
1369 (87.8%)	191 (12.2%)	6.06* (0.26)	1479 (85.7%)	246 (14.3%)	5.29 (0.28)

Tetun					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
1356	187	3.43*	1474	245	3.24
(87.9%)	(12.1%)	(0.08)	(85.7%)	(14.3%)	(0.08)
Portuguese					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
954	589	3.02	945	774	3.00
(61.8%)	(38.2%)	(0.07)	(55.0%)	(45.0%)	(0.08)
CBA Total					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
1494	49	17.33*	1660	59	15.49
(96.8%)	(3.2%)	(0.65)	(96.6%)	(3.4%)	(0.70)

Note: Means calculated using non-zero scores only. * indicates mean score for that group is statistically significantly different from the mean score for the other group at $\alpha=0.05$.

Source: Original data provided by The World Bank (2018).

Table 5: Comparison of PLMP and Non-PLMP schools on the CBA total score, by municipality, Grade 3, 2017

Municipality	PLMP School		Non-PLMP School	
	Mean	s.e.	Mean	s.e.
Aileu	15.934*	0.686	12.314	0.582
Atauro	17.148	0.711		
Dili Remote	17.066	0.47	17.655	0.397
Liquiça	16.724	0.359	15.677	0.36
Manatuto	16.893*	0.446	12.864	0.382

Note: Means calculated using non-zero scores only. No students were assessed in non-PLMP schools in Atauro. * indicates mean score for that group is statistically significantly World Bank (2018).different from the mean score for the other group at $\alpha=0.05$.

Source: Original data provided by The World Bank (2018).

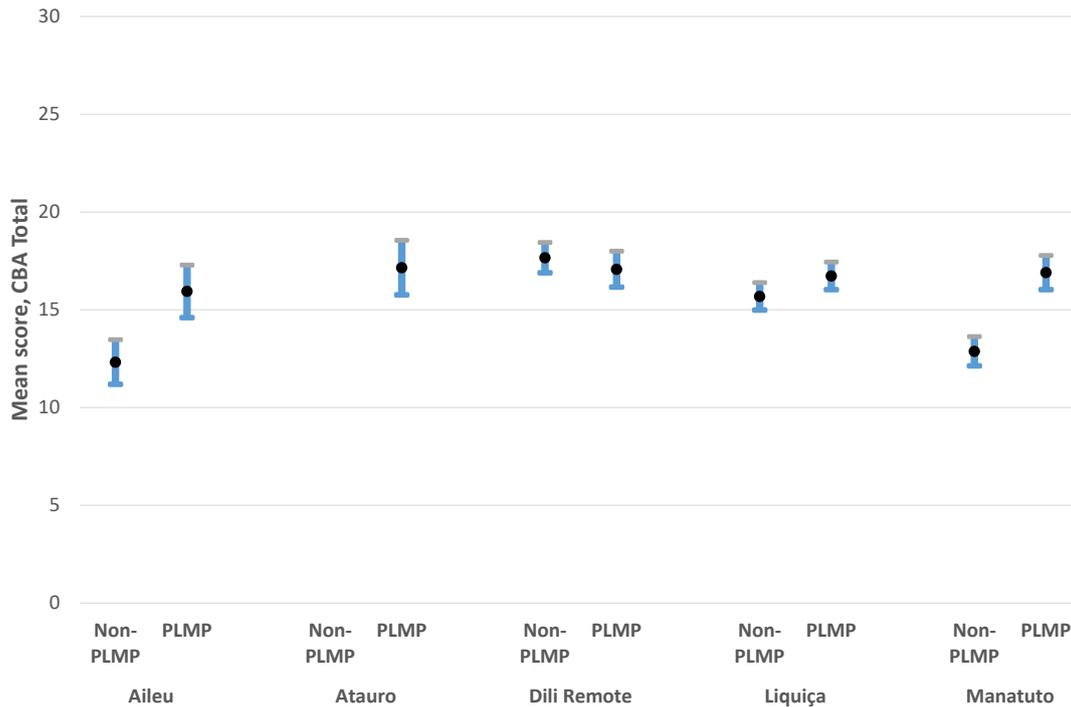


Figure 2: Mean scores and upper and lower bounds for CBA total scores in PLMP and non-PLMP schools, by municipality, Grade 3, 2017

4.3 Results on the EGRA

For the EGRA, students in Grade 2 were assessed with the same components as used with students in Grade 3. As noted previously, there is no overall EGRA score.

4.3.1 Grade 2

Among students in Grade 2, there is a statistically significant difference between mean scores for students in PLMP schools and mean scores for students in non-PLMP schools on one component of the EGRA: Letter Identification. For all other components, the differences between the two groups of students are small and not statistically significant (see Table 6). The ICCs for components of the EGRA range from 0.19 on Non-words to 0.38 on Text Words Read.

There are much larger differences between PLMP schools and non-PLMP schools in the percentage of students with zero scores. **For all components of the EGRA, there were higher percentages of students with zero scores in non-PLMP schools than in PLMP schools.**

4.3.2 Grade 3

Among students in Grade 3, there is no statistically significant difference between mean scores for students in PLMP schools and mean scores for students in non-PLMP schools (see Table 7). Among students in Grade 3, the ICCs range from 0.23 on both Words and Non-words to 0.31 on Text Words.

As noted for Grade 2, there are much larger differences between PLMP schools and non-PLMP schools in the percentage of Grade 3 students with zero scores. For most components of the

EGRA, there were higher percentages of students with zero scores in non-PLMP schools than in PLMP schools, except for the Non-words component.

The ICCs for both Grade 2 and Grade 3 indicate a small to medium effect of school differences. This may indicate that the school that students attended may have had a small to medium effect on their performance.

Table 6: Comparison of PLMP and Non-PLMP schools on components of the EGRA, Grade 2, 2017

Letters Identified					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
487 (86.3%)	77 (13.7%)	43.2* (1.79)	382 (81.4%)	87 (18.6%)	36.4 (1.61)
Words					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
284 (50.5%)	278 (49.5%)	15.7 (1.14)	167 (35.6%)	302 (64.4%)	12.7 (0.91)
Non-words					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
210 (37.3%)	353 (62.7%)	13.5 (1.17)	104 (22.2%)	364 (77.8%)	12.8 (0.88)
Text words					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
182 (32.3%)	381 (67.7%)	27.5 (2.53)	85 (18.1%)	384 (81.9%)	27.6 (1.85)
Fluency					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
182 (32.3%)	381 (67.7%)	27.7 (2.56)	85 (18.1%)	384 (81.9%)	27.6 (1.88)
Comprehension					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
172 (30.6%)	391 (69.4%)	3.7 (0.21)	73 (15.6%)	396 (84.4%)	3.6 (0.15)

Note: Means calculated using non-zero scores only.

* indicates mean score for that group is statistically significantly different from the mean score for the other group at $\alpha=0.05$.

Source: Original data provided by The World Bank (2018).

Table 7: Comparison of PLMP and Non-PLMP schools on components of the EGRA, Grade 3, 2017

Letters Identified					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
547	51	59.6	422	65	58.0
(91.5%)	(8.5%)	(1.74)	(86.7%)	(13.3%)	(1.54)
Words					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
434	164	25.2	317	170	23.6
(72.6%)	(27.4%)	(1.15)	(65.1%)	(34.9%)	(1.00)
Non-words					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
371	227	19.9	261	225	21.0
(62.0%)	(38.0%)	(1.10)	(53.7%)	(46.3%)	(0.95)
Text words					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
367	231	38.8	235	250	38.5
(61.4%)	(38.6%)	(1.72)	(48.5%)	(51.5%)	(1.44)
Fluency					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
367	231	41.3	235	250	40.7
(61.4%)	(38.6%)	(2.13)	(48.5%)	(51.5%)	(1.79)
Comprehension					
PLMP			Non-PLMP		
Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)	Scores > 0 (%)	Scores = 0 (%)	Mean (s.e.)
350	245	4.3	238	248	4.5
(58.8%)	(41.2%)	(0.13)	(49.0%)	(51.0%)	(0.11)

Note: Means calculated using non-zero scores only.

* indicates mean score for that group is statistically significantly different from the mean score for the other group at $\alpha=0.05$.

Source: Original data from World Bank (2018).

4.4 Other measures

Two additional measures are available that could be used to compare PLMP and non-PLMP schools: the New Curriculum Index, which measures how much the new curriculum has been implemented in the class, and the Teacher Quality Index, which is a scale based on a number of teacher actions in the classroom. On both measures, there is no statistically significant difference between PLMP and non-PLMP schools, as shown in Table 8. Although scores on both indexes appear to favour PLMP schools, the differences are small and not statistically significant.

Table 8: Comparison of PLMP and Non-PLMP schools on New Curriculum Index and Teacher Quality Index, 2017

School group	New Curriculum Index		Teacher Quality Index	
	Mean	s.e.	Mean	s.e.
PLMP	39.697	1.000	61.529	1.126
Non-PLMP	38.568	1.082	58.536	1.205

Source: Original data from World Bank (2018).

4.5 Summary

This section has examined results from two assessments that were administered to students in Grades 2 and 3 in schools in five municipalities of Timor-Leste. The assessments, CBA and EGRA, were administered individually to students in schools that are participating in PLMP and a sample of similar schools that are not in the program. EGRA is a generic reading assessment for children in the early years of school; CBA is linked more closely to the new curriculum that was introduced.

These results indicate that in the short time after the introduction of the new curriculum, **students with non-zero scores in Grade 2 in PLMP schools performed better on the components of the CBA** — letter identification, reading and mathematics — than did students with non-zero scores in Grade 2 in non-PLMP schools. **Grade 3 students with non-zero scores in PLMP schools performed better than those in non-PLMP schools on the reading, mathematics and Tetun language components** of the CBA, but there was no difference in Portuguese language. On average, overall scores also favour students in PLMP schools.

Results on the EGRA present a different finding. Among students in Grade 2, students with non-zero scores in PLMP schools had a higher mean score than did students with non-zero scores in non-PLMP schools on the letter identification component only. In all other components of EGRA, there was no difference in mean scores between PLMP schools and non-PLMP schools. Among Grade 3 students, there was no difference in mean scores between PLMP schools and non-PLMP schools. But **although there is little difference in the scores achieved by students in PLMP and non-PLMP schools, there is a difference between schools in the percentage of students who did not score on EGRA.** At both Grade 2 and Grade 3, a higher percentage of students in PLMP schools were able to respond. **If zero scores were to**

be included in the calculations of means, then PLMP schools would have statistically significantly better results on nearly all components of EGRA than non-PLMP schools.

At this time, **there is no statistically significant difference between PLMP schools and non-PLMP schools on the two measures of school and teacher quality, the New Curriculum Index and the Teacher Quality Index.** These two indexes will continue to be monitored to determine whether they change as a result of the PLMP, and to determine whether they influence student achievement.

5 Conclusion

This Interim Report provides an analysis of findings related to the three specific questions guiding this multi-year investigation of the PLMP. This report includes findings from the qualitative field research conducted in Manufahi and Aileu municipalities. It also includes an examination of the results from the 2017 World Bank Study using two assessments (CBA and EGRA) that were administered to students in Grades 2 and 3 in five municipalities. Only one of these municipalities – Aileu – was included as a case study and in the 2017 World Bank Study. This is because PLMP was not implemented in Manufahi until 2018.

To reiterate, this research provides insight into the broad research question: **To what extent does this aid investment produce improved teaching quality and improved student learning?**

Three specific questions related to this broad question were investigated:

1. To what extent does the PLMP support improved teaching quality in Timor-Leste?
2. To what extent does the PLMP support the effective implementation of Timor-Leste's National Basic Education Curriculum?
3. To what extent does teacher involvement in the PLMP lead to improved learning outcomes for Timor-Leste students?

5.1 Review of key findings

The research in the two school clusters specifically addressed Questions 1 and 2, with possible implications for Question 3. The review of the CBA and EGRA data was focused on Question 3. In addressing these questions, there are a number of indicative findings emerging from the first phase of research on PLMP. First, that PLMP has been effective in supporting improved teaching quality through facilitating instructional leadership and empowering school leaders to assist teachers. Second, that PLMP has been effective in supporting implementation the new curriculum. Third, that PLMP has led to improved learning outcomes for students cannot be determined at this early stage of the investigation.

In regard to improved student learning outcomes, the review of CBA indicates that in the short time after introducing the new curriculum overall scores for students in Grade 2 and Grade 3 favour PLMP rather than non-PLMP schools. However, on the majority of components for EGRA, there was no difference in mean scores between PLMP and non-PLMP schools. The case study research gathered evidence from a range of educational stakeholders who

indicated they observed an increased student interest in lessons, improved student attendance and improved literacy skills since PLMP implementation. The overall findings are summarised under each research question below.

To what extent does the PLMP support improved teaching quality in Timor-Leste?

Case study research in Manufahi and Aileu indicates that PLMP is effective in supporting improved teaching quality through:

- Improving understanding of instructional leadership and empowering leaders to become more actively involved in improving teaching quality
- Enabling teachers to immediately address challenges experienced in the classroom
- Supporting teachers to utilise lesson plans, prepare didactic materials and incorporate student-centred approaches into practice
- Improving confidence towards teaching and increasing teacher sense of professional responsibility
- Improving punctuality and classroom management
- Encouraging teachers to adopt principles of positive discipline in the classroom

To what extent does the PLMP support the effective implementation of Timor- Leste’s National Basic Education Curriculum?

Case study research in Manufahi and Aileu indicates that PLMP supports the effective implementation of Timor-Leste’s National Basic Education Curriculum through:

- Facilitating a peer learning process for teachers to prepare, review and present lessons, provide feedback, share challenges and workshop solutions
- Enabling efficient information sharing and effective classroom observations
- Supporting teachers to effectively utilise lesson plans
- Enabling teachers and school leaders to access lesson plans and materials for teaching, alleviating some resource constraints. At the same time school leaders, teachers and students continue to face substantial constraints to effective teaching and learning (infrastructure, transport, teaching and learning resources, supply of qualified teachers, school feeding, and linguistic diversity)..

To what extent does teacher involvement in the PLMP lead to improved learning outcomes for Timor-Leste students?

The extent to which teacher involvement in PLMP leads to improved learning outcomes for Timor-Leste students cannot be determined at this early stage and is an area for further investigation. Preliminary findings indicate:

- Students in Grade 2 and Grade 3 in PLMP schools performed better on the CBA on a majority of components than those in non-PLMP schools

- Grade 2 students in PLMP schools had a higher mean score than those in non-PLMP schools on one component only; and, there was no difference in mean scores for Grade 3 students in PLMP and non-PLMP schools
- A higher percentage of students in PLMP schools in Grade 2 and Grade 3 were able to respond to EGRA questions as opposed to those in non-PLMP schools, indicating a positive outcome in PLMP schools, although the difference was substantially less in Grade 3 than Grade 2
- There are some indications that student interest in lessons and student attendance has improved because of improved teachers' confidence, preparation and classroom management skills as a result PLMP
- Some stakeholders observed improved student literacy and reading outcomes in their schools after methods they learned during PLMP.

5.2 Key lessons, barriers and recommendations

The difference in PLMP rollouts in each cluster enabled the team to gain insights particularly about program sustainability. Manufahi stakeholders were experiencing the real-time benefits of PLMP, while Aileu stakeholders were dealing with the post-intervention stage, and facing difficulties with building on the skills they learned from PLMP over a year prior to case study data collection.

5.2.1 Program recommendations

It was found during the case study collection that there are a number of risks to sustainability which have implications for lessons learned and any possible future recommendations for the program. Some of these risks include:

1. Limited capacity and motivation to continue activities without the presence of active program interventions, such as ongoing support from mentors or professional learning after the completion of a rollout of a phase.

Recommendations:

- Develop a 'phase-out' strategy to determine how program interventions can be withdrawn while ensuring self-sustaining change, including scaling down mentor support during a transition period
 - Develop a 'phase-over' strategy to support school communities to sustain activities after intervention withdrawal
 - Increase the long-lasting impact of mentor support by including curriculum training for mentors to increase their capacity to support teacher and leader understanding of curriculum content.
2. The absence of succession plans to manage institutional capacity gaps caused by leadership transitions

Recommendations:

- Include a succession plan component in the Leaders of Learning Program to support school leadership change management
 - Introduce periodic refresher school leader training, access to technical support or peer-learning sessions including the educational technology component (tablets), and include teachers with leadership potential.
3. Limited resources to support program activities for school observations and PLGs.

Recommendations:

- Periodic resourcing to support continuation of peer-learning activities and school monitoring.
- Actively engage inspectors and municipal education directors in PLMP activities

The recent case study collection also collected evidence on gender and disability inclusion. Whilst school leaders and teachers widely recognise educational equity as a human right and endeavour to incorporate inclusive teaching practices, there are significant capacity gaps to implementing equitable systems at schools.

Recommendation:

- Integrate gender and disability inclusion in future curriculum review and training for school leaders, teachers and mentors.

5.2.2 Study recommendations

One limitation for the overall investigation is the availability of student learning outcomes data. The last administration of EGRA and CBA was conducted by the World Bank in 2017. While this provides a modest contribution to the study, it is not possible to reliably measure trends in student learning outcomes. If another EGRA collection is administered in 2019 or 2020, this should provide another source of data on student learning outcomes.¹²

Future directions for this study include the following:

- Continue applying case study design to collect and document PLMP experiences and insights in additional phases and clusters
- Administer an additional data collection, for example a Classroom Based Assessment (CBA) or classroom observation as outlined in the Timor-Leste Teacher Multi-Year Study Plan
- Include school level participation data in upcoming case studies.

¹² An additional EGRA collection in 2019 or 2020 is yet to be confirmed with the Ministry of Education.

6 References

Department of Foreign Affairs and Trade (2015), *Investing in Teachers*. Canberra: Department of Foreign Affairs and Trade

Education Analytics Service (2017), *PLMP Evaluation Plan*. Melbourne: Australian Council for Educational Research

Education Analytics Service (2017), *Teacher Development Evaluation Conceptual Framework*. Melbourne: Australian Council of Educational Research

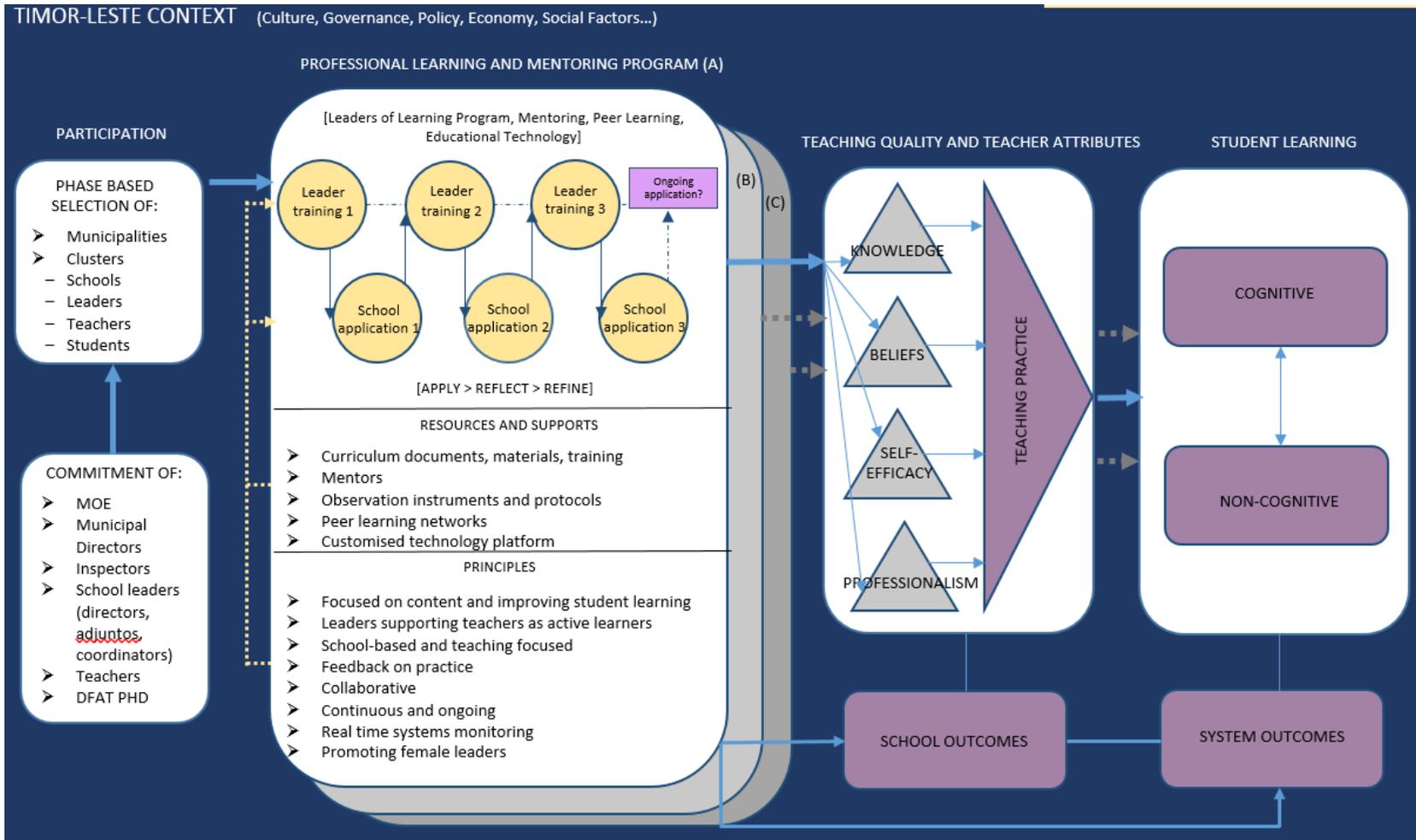
Ministry of Education, Timor Leste (2017), Education Management Information System (EMIS)

RTI International (2015), *Early Grade Reading Assessment (EGRA) Toolkit, Second Edition*. Washington, DC: United States Agency for International Development

World Bank (2018), *Lessons learned from an early assessment of two innovations in basic education*. Washington: World Bank

Title Page Images sourced from © Unsplash/James Tay, and the Australian Council of Educational Research.

Appendix A: Conceptual model



Appendix B: Overview of the Professional Learning and Mentoring Program

Since independence, the Timor-Leste Ministry of Education (MoE) has been working to develop a model of basic education suited to the needs and conditions of its students. In 2013 the MoE developed a new curriculum for pre-school to Grade 6, to improve literacy and numeracy.

The new National Basic Education Curriculum organises subject content into sequenced and scripted lessons for each grade level to ensure content uniformity across classes and schools. It also proposes new pedagogies that aim to transform teaching and learning approaches in Timor-Leste, moving from traditional teacher-centred approaches to student-centred ones.

Student-centred learning seeks to address the individual learning needs and interests of individual students. Scripted lessons support teachers with little or no formal education training implement the new curriculum, in accordance with student-centred learning approaches.

The new content and pedagogies included in the National Basic Education Curriculum require significant change and new learning for Timor-Leste teachers. Some teachers have little or no formal training and therefore limited knowledge of either subject content or teaching pedagogies. Most teachers – with or without qualifications – have traditionally employed a predominantly autocratic teaching style.

To introduce the new curriculum, the MoE uses a cascade training model. The MoE provides training for local education leaders who then provide training for teachers in their school clusters, aligned to the phased rollout of the new curriculum beginning with Grades 1 and 2 in 2015.

Developed in partnership between DFAT and MoE, the Professional Learning and Mentoring Program aims to supplement the MoE teacher training and new curriculum materials by supporting:

- continuous teacher professional development
- strong school leadership
- systems to assess student learning outcomes
- systems to support and evaluate teacher performance.

The PLMP has been designed to build leadership and teacher capacity and support the effective implementation of the National Basic Education Curriculum as it is released in stages. The program includes a number of core components identified in the research literature to be important to supporting teacher learning and changed teaching practice. These are:

- Leaders of Learning Program: the building of leadership capacity through a program of leadership training known as ‘Leaders of Learning Program’, comprising three two-day training sessions which are held three to four months apart. The

purpose of the leadership training is to build school leaders' understanding of student-centred learning and equip them to support teachers in the implementation process. After each training session, school leaders are provided with educational leadership tasks to implement in their schools with the support of their accompaniers and which involve applying their learnings from the leadership events. School leaders include Inspectors, Directors, Deputy Directors (Adjuntos), Coordinators and Municipal Directors who are chosen to participate based on their demonstrated leadership skills and initiative. Where there are no female school leaders in a particular municipality, high performing female lead teachers are invited to participate.

- School-based peer professional learning groups (Strengthening of the GTPs): the establishment of school-based peer professional learning groups which involve teachers of 'like' year levels across a cluster of schools meeting regularly for the purpose of learning from each other, discussing common issues, and problem solving.
- Mentoring: the provision of on-the-job mentor support from international, national and local mentors, to support school leaders to apply their learning from the leadership training, and to support teachers to implement the new curriculum. This includes through setting up and supporting teacher-led peer learning groups, conducting classroom observations and giving feedback to teachers, and conducting student achievement testing.
- E-learning: the use of technology to enable efficient information sharing and monitoring. Each school leader and mentor is given a tablet with custom-built apps and a dashboard to use to collect, store and submit observation data, to retrieve program information, and to engage in collegial networking. . There are applications for a teacher observation checklist and mini literacy/numeracy test. Data from observations and testing is uploaded as it is completed so that data is available in real-time. Tablets also allow school leaders to film classes and provide feedback.

Goal

The overall program goal is to improve student literacy, numeracy and holistic educational outcomes, where holistic education refers to students' wellbeing, social skills, self-confidence, critical thinking and creativity.

PLMP rollout

The PLMP is being implemented nationally with a range of implementing partners, using a geographically phased approach across multiple years. The commitment to the program through the Australian Embassy Partnership for Human Development (PHD) is for a minimum of five years, with an extension anticipated to ten years.

Each phase covers a 9-12 month period; coverage in each municipality is around 50 per cent of clusters in that location.

Appendix C: Detailed methodology

A key feature of the PLMP study method is its multi-year duration, which acknowledges the complex nature of teacher learning and that sustained change in teaching practice takes time. It also recognises the scale of the program investment, and enables an agile and adaptive approach that is responsive to contextual affordances and limitations.

The PLMP study uses existing and newly collected data. By using these two types of data, the scope is broadened as much as possible given the human and financial resourcing for the study, and reflects proportionality. The PLMP study adopts a mixed methods approach utilising both quantitative and qualitative methods.

Attribution

Attribution seeks to identify how a given activity specifically resulted in an identified outcome. Attribution is easier to establish when there is a clear causal relationship between the outcome and any preceding outputs. For example, that immunising children resulted in fewer cases of that disease. In education, attribution is difficult to establish, as it is hard to identify the specific factor that resulted in an outcome. For example, are children performing better in standardised tests because of teacher training, or the availability of textbooks, or changes to the school curriculum? Whilst even these factors could be tracked within the school context, they do not include other extraneous factors such as, improved nutrition, change in the availability of light in order for the student to read or complete homework, or extra tuition outside school.

Teaching itself is a 'noise-filled' context. There are a wide range of contextual factors that enable and constrain productive investments in teachers, teaching and education communities, for example, budgetary constraints, and political priorities within schools and the larger national context. While there may be relationships between various factors associated with student learning outcomes, direct causal relationships are difficult to determine.

Quantitative

Existing data was used to explore student learning outcomes in Timor-Leste. The quantitative data analysed for the first year of the PLMP study includes the Classroom Based Assessment (CBA) and Early Grade Reading Assessment (EGRA) data.

The CBA was derived from the content of the New Curriculum and thus measures the extent to which the content of that curriculum has been mastered. Students were assessed on basic reading, mathematics, and Tetun and Portuguese language (Grade 3 only). The CBA was administered to all 6,326 students in the target classes in all schools in both PLMP and non-PLMP schools. This assessment was conducted in Tetun, the language of instruction in all schools.

The EGRA was developed by RTI International under contract to the United States Agency for International Development (USAID). It was designed as 'a simple instrument that could report on the foundation levels of student learning, including assessment of the first steps students

take in learning to read' (RTI International, 2015, p. 7). The EGRA implemented in Timor-Leste in 2017 used selected components of the EGRA which had been used previously in 2009 in Timor-Leste, to allow the examination of differences between 2009 and 2017. EGRA is labour-intensive, as it is administered to each child individually in Tetun. The six components of the EGRA used in this assessment were Letter Knowledge, Word Reading, Non-word Reading, Text Reading, Reading Fluency and Reading Comprehension.

Method

For the current analysis, we consider the hierarchical structure of the data. Students are nested within schools, and schools are located within municipalities. We have taken this approach on the assumptions that students within a school are more alike than when compared with students in other schools, and that schools within a municipality are more alike than when compared with schools in other municipalities. Our initial assumptions about the structure of the data are shown to be correct: the intraclass correlations (ICC) indicate that up to 39 per cent of the variation in the data can be accounted for by the structure. If the ICC were low—perhaps below 0.10, or 10 per cent—then the analysis could proceed without the need to consider the hierarchy. To conduct the analyses, we used the MIXED procedure in the Advanced Statistics option of SPSS version 24.

The results reported here may differ from previous reports that do not account for the hierarchical structure of the data.

Sample design

The World Bank assessment of the PLMP innovation can be described as a quasi-experimental research design. As of 2017, the PLMP innovation had been implemented in approximately 125 schools in 5 municipalities.¹³ Sixty (60) of these were randomly chosen to serve as the treatment group. With the exception of one municipality¹⁴, an equal number of comparison schools were chosen for inclusion in the study. The final sample included 70 PLMP schools and 58 comparison or non-PLMP schools.¹⁵

Qualitative

New data was collected through case studies. Case study methodology was selected to provide rich descriptions of program details and outcomes. Through case studies, detailed information was obtained about the kinds of affordances and constraints that work to support or disrupt program success, and important contextual information gathered to assist the interpretation of program results. The PLMP case studies are comprised of interviews with key stakeholders and observations of PLGs, to investigate the ways that PLMP influences teaching quality, the implementation of the new curriculum, and student learning in Timor-Leste.

¹³ Manatuto, Aielu, Liquiça, Dili Remote, Atauro.

¹⁴ In Atauro, all of the schools are PLMP schools so none could be selected as comparison schools.

¹⁵ World Bank (2018). *Lessons learned from an early assessment (2017) of two innovations in basic education in Timor-Leste*. Final Draft (25 January 2018).

Examples of the specific information the case studies provide to investigate the research questions include:

To what extent does the PLMP support improved teaching quality in Timor-Leste?

- What is the nature of changed teaching practices?
- Which teaching practices have been more/less easy to transform?
- What supports have teachers found to be most helpful to improving their practice?
- What barriers have prevented teachers from making changes to their practice?
- What have been the effects of changed teaching practices on teacher behaviour and attitudes?
- Are teachers and leaders better able to support children with disabilities in the classroom?

To what extent does the PLMP support the effective implementation of Timor-Leste's National Basic Education Curriculum?

- Which aspects of the curriculum have been more/less easy to implement?
- What supports have teachers found to be most helpful to implementing the new curriculum?
- What barriers have prevented teachers from implementing parts of the new curriculum?

To what extent does teacher involvement in the PLMP lead to improved learning outcomes for Timor-Leste students?

- What do teachers (and other stakeholders) regard to be the most significant changes to student learning?
- What effects have there been on student learning in areas beyond academic subjects?
- Are girls and boys equally participating and active in classroom learning?

Method

Stakeholder interviews and PLG observations were the primary data collection methods for the PLMP case studies. Interview guides and PLG observation tools were designed to address each of the overarching questions articulated in the evaluation plan and described above. The ACER team worked in partnership with Belun, a Dili-based NGO, to collect the data. The research team also undertook field visits at sampled clusters in Aileu and Manufahi municipalities to explore PLMP in context. Cluster and school selection is described in Section 1.4.2.4, Sampling.

Instrument design

Interviews

The research team developed interview guides to conduct semi-structured interviews with a range of education stakeholders including municipal directors, inspectors, school directors, school coordinators, adjuntos, teachers and mentors. This strategy enabled a range of perspectives about the teaching investment to be collected at national, municipal and local levels.

Peer Learning Group (PLG) Observations

A tool for observing the Peer Learning Group (PLG) was designed based on the TIMSS lesson study framework.¹⁶ This tool enabled the team to record processes of the PLGs.

Instrument translation

The interview guides and PLG observation template underwent translation by an independent translator, and linguistic review by DFAT Dili Post and the in-country research organisation.

Sampling

Purposeful sampling was utilised to select the case study sites based on specific criterion (phase, municipality, cluster, school), and with input from DFAT Post and the in-country research organisation.

Phases and municipalities

For PLMP Case Study 1, Phase 2 and Phase 4 were selected. Phase 2 was selected because the PLMP intervention concluded in 2016, and it provided an opportunity to investigate the sustainability of the program. Phase 4 was selected because it provided an opportunity to explore the program during the implementation of a new phase. The selection of Phase 2 and Phase 4 provided a good comparison for investigation. Phase 1 was excluded as it is considered the pilot phase.

Clusters and schools

Clusters were selected based on the inclusion of a Central School covering Grades 1-9, and the number of schools with higher student populations. Clusters with Central Schools of Grade 7-9 only were excluded.

Phase	Municipality	Cluster
2	Aileu	Daisoli
4	Manufahi	Dotic

¹⁶ The Trends in Mathematics and Science Study (TIMSS) uses a method to observe classroom settings called 'lesson study'. An observer notes the processes that take place by using timed segments in a lesson or group meeting. This process was effectively adapted and applied to PLG observations. Please refer to appendix F for example PLG observation tool.

Schools

Grades 1-3 and Grades 1-6 schools with small numbers of students (less than 50) were determined to likely be multi-grade and as such were excluded if larger alternative schools were available.

Eskola data (literacy and numeracy, counting observations, peer learning groups, teacher observations and teacher competency) was used to assess intensity of activity, and patterns in student and teacher performance when selecting schools. Three schools in Daisoli were selected as they were administered EGRA in the 2017 World Bank Study.

Scoping visits

Scoping visits to the sample sites were conducted Belun to confirm logistical details, interview times and official communication requirements. For example, determining road access and travel times to schools, locating available accommodation for the research team and identifying catering options for participants.

Field research training

ACER delivered a 2 day in-country training to build the capacity of the field researchers to undertake PLMP case study data collection¹⁷. The training program included:

- Overview of Education Analytics Service
- Overview of PLMP
- Case study methodology
- Data collection techniques
- Data collection instruments
- Roles and responsibilities
- Mock interviews.

Data collection

Field visits

Field visits were a key part of the case studies. The research team had the opportunity to observe key stakeholders in their education environments, and gain an appreciation of the challenges and successes for teachers and their schools. Importantly, field visits enabled the team to understand how a teaching investment is experienced by key stakeholders in their contexts.

After each day of data collection in the field, ACER conducted debrief sessions with the Belun researchers. The purpose of these sessions was to discuss any problem encountered with the

¹⁷ Refer to appendix D 'Field Research Training Outline' for further detail.

interview and school visit process, and make decisions as a team about how to address those problems.

Interviews

Semi-structured interviews were conducted with key stakeholders. Interviews were recorded in Tetun and transcribed into English for analysis. Research participants included:

- Municipal directors
- Inspectors
- School leaders (directors, adjuntos, coordinators)
- Teachers
- Mentors (international, national, accompaniers).

Peer Learning Groups

Saturday Peer Learning Groups (PLGs) were observed in both case study municipalities, using the PLG observation tool.

Quality assurance

The ACER research team accompanied the in-country research team to provide a quality assurance and oversight role. The ACER team observed all of the interviews and conducted daily debrief session with the in-country research team to enable the team to reflect on any emerging issues and experiences, and immediately address those issues.¹⁸

Data analysis using NVivo

To conduct the analysis, the ACER team used QSR NVivo 12 Pro. Data was coded aligned with themes identified in the Contextual Framework. A test of inter-rater reliability (Cohen's κ) was performed on a random sample of the qualitative data. The analysis showed, on average, an acceptable level of agreement between two independent coders ($\kappa = 0.7, p < .0005$).

NVivo 12 Pro was selected by ACER for analysis for the following reasons:

- It provides an audit trail of the data and analysis, giving greater transparency and visibility of the process
- It provides an efficient way for the team to organize the research
- It provides the team with a range of methods to compare and synthesise the data
- It provides a way of testing the reliability of the analysis.

Limitations

There are some limitations to the Timor-Leste case study related to context-specific issues.

¹⁸ Refer to appendix D 'Field research debrief tool'

Data availability

This study was not part of the original design for DFAT's PLMP investment. As such, this study uses data that is available, supplemented by new data collections where feasible, and the data collections may not entirely be fit for purpose for each study.

There were a number of reported student learning outcomes data that were not available or deemed unsuitable for analysis at the time of reporting. These collections include:

- The 2009 EGRA was not useable as part of baseline data because the raw data provided was not clean and some of the data entry was erroneous (e.g. double entries)
- The EMBLI data was not able to be sourced, but likely to have used the same tools as the 2017 World Bank Study, and thus may be useable as a data point in the future
- The baseline classroom observation data from UNICEF CFS used a different methodology to classroom observation undertaken in the 2017 World Bank Study.

Generalisability

The qualitative case studies are not intended to generalise the impact of PLMP across Timor-Leste. Case studies are intended to explore the experience of the investment by educational stakeholders in Timor-Leste. In this way, the case studies are intensive (rather than extensive), and investigate small samples but a multitude of variables. The ability to extract this level of detail from PLMP is an important part of the overall design of the study.

Socio-economic, cultural and political contexts may also affect how a teaching professional development investment is received and taken up by teachers. Some of these external factors may provide insight into teaching quality, particularly as generated from qualitative evidence.

In-country field support

In April 2018, M&E House indicated it was no longer able to support in-country data collection, as had been confirmed in the final PLMP Evaluation Plan. As a result of this change, ACER worked with EDC and Dili Post to explore other options for in-country case study support. Difficulties in finding an appropriate and cost-effective research partner led to a rushed selection and contracting process.

This situation affected the preparation of the in-country research team. Daily debrief sessions in the field was one way of supporting the interviewers, particularly in asking probing questions to explore issues about a topic.

Access to participants

Teachers at the first sampled school appeared nervous and did not consent to their interviews being recorded. The initial introduction at this school included only the School Director. In response to this, the decision was made to include all research participants in the initial introduction to the research team, to ensure they had a good understanding of the purpose

of the research and consent process. This response was effective in engaging teachers, demonstrated by all subsequent participants consenting to audio-recording.

Peer Learning Group observation

The PLG in Aileu had not been held for one year from the time of data collection in September 2018, and a special PLG was organised for the research team visit. The team, then, was not able to observe a 'normal' PLG process in Aileu. There were expectations that the research team were PLMP mentors, and this created tension with one School Coordinator. Regardless, the team had several insights related to sustainability challenges of PLMP.

Appendix D: Field research training outline

Day 1 – Wednesday 12 September

2 - 2.10 pm	Welcome participants (Belun)
2.10 – 2.20 pm	Introduction of participants
2.20 – 2.30 pm	Speech by Belun (Luis), ACER (Elizabeth) and DFAT (Dionisio) - partnership objective, main research goal
2.30 – 2.40 pm	Training agenda overview
2.40 – 3 pm	Break
3 – 3.30 pm	EAS overview (including conceptual framework)
3.30 – 4.30 pm	PLMP overview (including evaluation plan and conceptual model) and education context

Day 2 – Thursday 13 September

9 – 9.30 am	Case Studies (incl. roles and responsibilities, samples and field research schedule)
9.30 – 10.30 am	Data collection: interview techniques and discussion of interview content
10.30 – 11am	Break
11 am – 12 pm	Data collection: FGD techniques and discussion of FGD content
12 – 12.30 pm	Instrument Terminology
12.30 – 1.30 pm	Lunch
1.30 – 3.30pm	Mock interviews and FGDs
3.30 – 4 pm	Break
4pm– 4.30 pm	Debrief/Q&A

Day 3 – Friday 14 September

9 – 10.30 am	Recap/Q&A
10 – 10.30 am	Break
10.30 – 11.30 am	Observation of PLG sessions – discussion of expectations and content of observation forms
11.30am-12.30 pm	Travel logistics, security, etc
12.30 pm	Lunch/End of training

Appendix E: Interview guides

INTERVIEW GUIDE:

PLMP TEACHERS

Participant

Cluster:			
	Teacher	School	Teaching Year Level

Administration notes

The purpose of this interview is to understand the experiences of teachers in the PLMP context. Teachers should be invited for a one-on-one interview with the research team. This interview will cover a range of issues related to teachers' experiences of PLMP, and how PLMP has contributed to teaching and student learning.

The research team should work in pairs, with one leading as the focus group moderator. The supporting researcher should audio record and make detailed notes of the discussion.

The research team should work in pairs, with one leading the interview. The supporting researcher should audio record the interview and make detailed notes of the interview responses.

It is important to remember that this is intended to be a semi-structured conversation, not a formal interview. The interview guide outlines the topics to discuss in the interview. These are presented through a list of questions. All topics must be covered in adequate depth.

Through this guide, sections presented in italics should be read aloud to the teacher.

The first part of the interview – Introduction – provides teachers with information about the purpose of the interview, introduces them to the research team, and explains the participation and consent process.

The second part of the interview – Questions – provides the framing questions for the interview. There are 9 framing questions and some suggested probing questions to encourage elaboration of the questions as needed.

Introduction

Thank you for making the time for this interview.

(Introduce the research team)

We are conducting an evaluation of the Professional Learning and Mentoring Program (or PLMP).

Our visit today is focused on understanding how PLMP supports teachers and students. We are speaking with teachers like you who participated in the PLMP, to learn about your experiences.

We are very interested in learning more about what has changed at your school because of PLMP, and what parts of the program have been helpful for you. We are interested in your views.

You do not need to answer questions that make you feel uncomfortable or that you do not want to answer. You can also withdraw and stop taking part at any time. We have 9 questions to ask you and the interview is expected to take approximately 30-45 minutes.

Voluntary participation:

Your participation in this study is voluntary.

You can decide to stop at any time, even part-way through the interview for whatever reason.

If you decide to stop participating, there will be no consequences to you.

If you decide to stop we will ask you how you would like us to handle the data collected up to that point.

This could include returning it to you, destroying it or using the data collected up to that point.

If you do not want to answer some of the questions you do not have to, but you can still participate in the research.

Consent Form:

Please read and sign this form regarding your privacy rights and consent. You can withdraw your consent at any time.

If you give us your permission, we will audio record the discussion and take photographs of you. Audio recordings will help us ensure your opinions are expressed accurately in our reports. The photographs may be used in reporting and sharing this research publicly.

You can choose to remain anonymous if you want, by selecting this option on the consent form. If you chose to remain anonymous, we will not include your name, photograph or any identifiable information in the report.

Does anyone have any questions before we begin?

Questions

Opening

Please share your name and how long you have been teaching at this school

Q1: *When someone says PLMP, what do you think of?*

We are interested in learning more about what's changed because of PLMP

Q2: In what ways has your practice changed because of PLMP?

Probe: Any changes related to:

- teaching practice
- knowledge
- beliefs
- attitudes (including confidence and motivation)
- professionalism (including commitment and attendance)
- your ability to support children with disabilities in the classroom
- the way you encourage the participation of boys and girls in classroom learning?

Q3: What do you see as the most important changes to student learning and wellbeing (are they healthy and happy in school)?

Probe: Any changes related to students':

- academic learning
- wellbeing
- interest in lessons
- confidence in learning
- attendance

Probe: What do you see as the most important changes for children with disabilities?

Probe: What do you see as the most significant differences between boys and girls?

Q4: How do you work with teachers at your school and at other schools?

We are interested in learning about how parts of PLMP are helpful to you

Q5: What parts of PLMP do you find most helpful, and in what ways?

Q6: How do the school leader and mentor help you implement the 'new' curriculum?

Probe: What are challenges with the 'new' curriculum?

Probe: How do you assess student learning?

Q7: *Can you talk about how the mentoring and feedback sessions are helpful?*

Q8: *In what ways are the Saturday peer learning sessions with other teachers helpful?*

Q9: *What are some ways that PLMP could work better for you and your school?*

Q10: *Is there anything else you would like to tell us about your experience with PLMP?*

Interviewer Notes and Observations

Please record below any observations or comments about the interviewer or interviewee:

INTERVIEW GUIDE: PLMP SCHOOL LEADERS

School Leader information

Name	
Role	
School	
Cluster	
Municipality	

Administration notes

The purpose of this interview is to understand the experiences of School Leaders (Coordinator, Director, Adjunto) in the PLMP context. School Leaders should be invited for a one-on-one interview with the research team. This interview will cover a range of issues that focus on the role of School Leaders in supporting and mentoring teachers in the PLMP.

The research team should work in pairs, with one leading the interview. The supporting researcher should audio record the interview and make detailed notes of the interview responses.

It is important to remember that this is intended to be a semi-structured conversation, not a formal interview. The interview guide outlines the topics to discuss in the interview. These are presented through a list of questions. All topics must be covered in adequate depth.

Through this guide, sections presented in italics should be read aloud to the School Leader.

The first part of the interview – Introduction – provides School Leaders with information about the purpose of the interview, introduces them to the research team, and explains the participation and consent process.

The second part of the interview – Questions – provides the framing questions for the interview. There are 12 framing questions and some suggested probing questions to encourage elaboration of the questions as needed.

Introduction

Thank you for making the time for this interview.

(Introduce the research team)

We are conducting an evaluation of the Professional Learning and Mentoring Program (or PLMP).

Our visit today is focused on understanding how PLMP supports teachers and students. We are interviewing leaders like you who participated in the PLMP, to learn about your experiences. We are interested in your views of the program and its impact.

You do not need to answer questions that make you feel uncomfortable or that you do not want to answer. You can also withdraw and stop taking part at any time. We have 12 questions to ask you and the interview is expected to take approximately one hour.

Voluntary participation:

- *Your participation in this study is voluntary.*
- *You can decide to stop at any time, even part-way through the interview for whatever reason.*
- *If you decide to stop participating, there will be no consequences to you.*
- *If you decide to stop we will ask you how you would like us to handle the data collected up to that point.*
- *This could include returning it to you, destroying it or using the data collected up to that point.*
- *If you do not want to answer some of the questions you do not have to, but you can still participate in the research.*

Consent Form:

Please read and sign this form regarding your privacy rights and consent. You can withdraw your consent at any time.

If you give us your permission, we will audio record the discussion and take photographs of you. Audio recordings will help us ensure your opinions are expressed accurately in our reports. The photographs may be used in reporting and sharing this research publicly.

You can choose to remain anonymous if you want, by selecting this option on the consent form. If you chose to remain anonymous, we will not include your name, photograph or any identifiable information in the report.

Do you have any questions before we begin?

Questions

We are interested in learning about the impact of PLMP on teaching quality

Q1: *What parts of PLMP have been most helpful for you as a school leader?*

Probe:

- *How has the Leaders of Learning training helped you?*
- *How do the tablets and observation tools support your work?*

Probe: *How could they be improved?*

Q2: *In what ways has your role changed with PLMP?*

Probe: *Do you see any changes related to:*

- *Your confidence in supporting teachers in the classroom*
- *Your role in improving teaching quality and student learning*
- *More visits to schools in your cluster*
- *Accountability for student learning results*

Q3: *What do you see as the most significant changes to teachers and teaching quality since implementing PLMP?*

Probe: *Do you see any changes to:*

- *Teaching practice*
- *Teachers' knowledge*
- *Teachers' beliefs and attitudes (including their confidence and motivation)*
- *Professionalism (including their commitment and attendance)*

Q4: *What kinds of things have prevented teachers from making changes to their practice?*

Q5: *In what ways has PLMP helped teachers to implement the 'new' curriculum?*

Probe: *What are challenges with the 'new' curriculum?*

Probe: *How do you support teachers to assess student learning?*

Mentors

Q6: *How do PLMP mentors assist you to help teachers?*

Q7: *How do inspectors assist you to help teachers?*

Peer learning

Q8: *What activities do teachers engage in at peer learning sessions in your cluster?*

Probe: *How do they decide on which topics to work on?*

Probe: *How helpful are the sessions for teachers?*

Probe: *How could the sessions be improved?*

We are also interested in learning about the impact of PLMP on student learning and at the school level

Student learning

Q9: *What are the most significant changes to student learning in your school since implementing PLMP?*

Probe: *Do you see any changes related to:*

- *Student academic learning*
- *Student wellbeing*
- *Student interest in lessons*
- *Student confidence in learning*
- *Student attendance*
- *Student support of children with disabilities in the classroom*
- *Equal participation of boys and girls in classroom learning*

School level

Q10: *What changes do you see in your school and other schools as a result of PLMP?*

Sustainability

Q11: *Do you think PLMP will make a difference to your school for a long time?*

Probe: *Why / Why not?*

Other

Q12: *Is there anything you would like to tell us about your experience with PLMP?*

Interviewer Notes and Observations

Please record below any observations or comments about the interviewer or interviewee:

INTERVIEW GUIDE:

PLMP MUNICIPAL DIRECTORS AND INSPECTORS

Municipal Director / Inspector information

Name	
Role	
Cluster	
Municipality	

Administration notes

The purpose of this interview is to understand the experiences of Municipal Directors and Inspectors in the PLMP context. Municipal Directors and Inspectors should be invited for a one-on-one interview with the research team. This interview will cover a range of issues that focus on the role of Municipal Directors and Inspectors in supporting the PLMP.

The research team should work in pairs, with one leading the interview. The supporting researcher should audio record the interview and make detailed notes of the interview responses.

It is important to remember that this is intended to be a semi-structured conversation, not a formal interview. The interview guide outlines the topics to discuss in the interview. These are presented through a list of questions. All topics must be covered in adequate depth.

Through this guide, sections presented in *italics* should be read aloud to the Municipal Director and Inspector.

The first part of the interview – Introduction – provides Municipal Directors and Inspectors with information about the purpose of the interview, introduces them to the research team, and explains the participation and consent process.

The second part of the interview – Questions – provides the framing questions for the interview. There are 11 framing questions and some suggested probing questions to encourage elaboration of the questions as needed.

Introduction

*Thank you for making the time for this interview.
(Introduce the research team)*

We are conducting an evaluation of the Professional Learning and Mentoring Program (or PLMP).

Our visit today is focused on understanding how PLMP supports schools, teachers and students. We are interviewing Inspectors like you who have supported the PLMP to learn about your experiences. We are interested in your views of the program and its impact. You do not need to answer questions that make you feel uncomfortable or that you do not want to answer. You can also withdraw and stop taking part at any time. We have 11 questions to ask you and the interview is expected to take approximately one hour.

Voluntary participation:

- *Your participation in this study is voluntary.*
- *You can decide to stop at any time, even part-way through the interview for whatever reason.*
- *If you decide to stop participating, there will be no consequences to you.*
- *If you decide to stop we will ask you how you would like us to handle the data collected up to that point.*
- *This could include returning it to you, destroying it or using the data collected up to that point.*
- *If you do not want to answer some of the questions you do not have to, but you can still participate in the research.*

Consent Form:

Please read and sign this form regarding your privacy rights and consent. You can withdraw your consent at any time.

If you give us your permission, we will audio record the discussion and take photographs of you. Audio recordings will help us ensure your opinions are expressed accurately in our reports. The photographs may be used in reporting and sharing this research publicly.

You can choose to remain anonymous if you want, by selecting this option on the consent form. If you chose to remain anonymous, we will not include your name, photograph or any identifiable information in the report.

Do you have any questions before we begin?

Questions

We are interested in learning about the impact of PLMP on teaching quality

Q1: *What do you see as the most significant changes to school leaders since implementing PLMP?*

Q2: *What do you see as the most significant changes in teachers and teaching quality in your municipality since implementing PLMP?*

Probe: *Do you see any changes related to:*

- *teaching practice*
- *teachers' knowledge*
- *teachers' beliefs and attitudes (including confidence and motivation)*
- *professionalism (including commitment and attendance)*
- *teachers' abilities to support children with disabilities in the classroom*
- *teachers encouraging the participation of boys and girls in classroom learning*

Q3: *What parts of PLMP do teachers find most helpful to improving their practice?*

Probe: *In what ways have observations and feedback been helpful for teachers?*

Probe: *How has PLMP changed the way teachers work together?*

Q4: *In what ways has PLMP helped teachers to implement the 'new' curriculum?*

Q5: *What kinds of things prevent teachers from making changes to their practice?*

Q6: *How do inspectors assist school leaders to help teachers?*

We are also interested in learning about the impact of PLMP on student learning and at the school level

Q7: *What are the most significant changes to student learning and wellbeing in the schools in this municipality since implementing PLMP?*

Probe: *Do you see any changes related to students':*

- *academic learning*
- *wellbeing*
- *interest in lessons*
- *confidence in learning*
- *attendance*

Probe: *What do you see as the most important changes for children with disabilities?*

Probe: *What do you see as the most significant differences between boys and girls?*

Q8: *What changes do you see in schools in this municipality as a result of PLMP?*

Q9: *How is PLMP different from other teacher support programs?*

Q10: *Do you think PLMP will make a difference to schools in this municipality for a long time?*

Probe: *Why/why not?*

Q11: *Is there anything else you would like to tell us about your experience with PLMP?*

Interviewer Notes and Observations

Please record below any observations or comments about the interviewer or interviewee:

INTERVIEW GUIDE:

PLMP MENTORS

Mentor information

Name	
Accompanier, National, International Mentor	
Cluster	
Municipality	

Administration notes

The purpose of this interview is to understand the experiences of local, national and international mentors in the context of the PLMP. Mentors should be invited for a one-on-one interview with the research team. This interview will cover a range of issues that focus on the role of mentors in supporting school leaders and teachers in the PLMP.

The research team should work in pairs, with one leading the interview. The supporting researcher should audio record the interview and make detailed notes of the interview responses.

It's important to remember that this is intended to be a semi-structured conversation, not a formal interview. The interview guide outlines the topics to discuss in the interview. These are presented through a list of questions. All topics must be covered in adequate depth.

Through this guide, sections presented in *italics* should be read aloud to the Mentor.

The first part of the interview – Introduction – provides Mentors with information about the purpose of the interview, introduces them to the research team, and explains the participation and consent process.

The second part of the interview – Questions – provides the framing questions for the interview. There are 13 framing questions and some suggested probing questions to encourage elaboration of the questions as needed.

Introduction

*Thank you for making the time for this interview.
(Introduce the research team)*

We are conducting an evaluation of the Professional Learning and Mentoring Program (or PLMP).

Our visit today is focused on understanding how PLMP supports teachers and students. We are interviewing people such as yourself who have worked as mentors for the PLMP, to learn about

your experiences in supporting school leaders and teachers. We are interested in your views of the program and its impact.

You do not need to answer questions that make you feel uncomfortable or that you do not want to answer. You can also withdraw and stop taking part at any time. We have 13 questions to ask you and the interview is expected to take approximately 1 hour.

Voluntary participation:

- *Your participation in this study is voluntary.*
- *You can decide to stop at any time, even part-way through the interview for whatever reason.*
- *If you decide to stop participating, there will be no consequences to you.*
- *If you decide to stop we will ask you how you would like us to handle the data collected up to that point.*
- *This could include returning it to you, destroying it or using the data collected up to that point.*
- *If you do not want to answer some of the questions you do not have to, but you can still participate in the research.*

Consent Form:

Please read and sign this form regarding your privacy rights and consent. You can withdraw your consent at any time.

If you give us your permission, we will audio record the discussion and take photographs of you. Audio recordings will help us ensure your opinions are expressed accurately in our reports.

The photographs may be used in reporting and sharing this research publicly.

You can choose to remain anonymous if you want, by selecting this option on the consent form.

If you chose to remain anonymous, we will not include your name, photograph or any identifiable information in the report.

Do you have any questions before we begin?

Questions

We are interested in learning about how PLMP supports leaders and teachers to improve teaching quality

Q1: *What do you see as the most significant changes to teachers and teaching quality since implementing PLMP?*

Probe: *Do you see any changes related to:*

- *teaching practice*
- *teachers' knowledge*
- *teachers' beliefs and attitudes (including confidence and motivation)*
- *professionalism (including commitment and attendance)*

- *teachers' abilities to support children with disabilities in the classroom*
- *teachers encouraging the participation of boys and girls in classroom learning*

Q2: *What parts of PLMP do teachers find most helpful to improving their practice?*

For example:

- *Mentoring*
- *Peer learning sessions*
- *Observation and feedback*
- *Student assessment*

Probe: In what ways are they helpful?

Q3: *In what ways has PLMP helped teachers to implement the 'new' curriculum?*

Q4: *What kinds of things prevent teachers from making changes to their practice?*

Q5: *What are the most significant changes you have seen to school leaders since implementing PLMP?*

Probe: In what ways has the Leaders of Learning program supported change for school leaders?

Q6: *What parts of PLMP did you find most helpful to providing on-the-job support to school leaders?*

Probe: How helpful are the tablets and observation tools to you as an observer?

Probe: How could they be improved?

Q7: *What kinds of things prevent school leaders from applying what they learned at the leadership training?*

Q8: *What happens at the Saturday peer learning sessions that you support?*

Probe: How are the topics for discussion chosen?

Probe: How helpful are the sessions for teachers?

Probe: How could the sessions be improved?

We are also interested in learning about the impact of PLMP on student learning and at the school level

Q9: *What do you see as the most important changes to student learning and wellbeing since implementing PLMP?*

Probe: *Do you see any changes related to students':*

- *academic learning*
- *wellbeing*
- *interest in lessons*
- *confidence in learning*
- *attendance*

Probe: *What do you see as the most important changes for children with disabilities?*

Probe: *What do you see as the most significant differences between boys and girls?*

Q10: *What changes do you see in schools as a result of PLMP?*

Q11: *Do you think PLMP will make a difference to schools for a long time?*

Q12: *Are there any ways that PLMP could work better for you as a Mentor?*

Q13: *Is there anything you would like to add about your experience as a Mentor with PLMP?*

Interviewer Notes and Observations

Please record below any observations or comments about the interviewer or interviewee.

Appendix F: PLG observation tool

OBSERVATION NOTES GUIDE:

PLMP PEER LEARNING GROUPS

Peer Learning Group information

Municipality	
Cluster	
Mentors/Assistants	
Teachers	
Meeting School	
Meeting Date	
Meeting Time	
Researcher	

Administration notes

The purpose of recording observation notes is to document the experiences of PLMP Peer Learning Groups (PLGs). The research team will attend a scheduled PLG meeting and make observations about the structure and format of the meeting. The team will also observe the content and issues that the PLG works on during the meeting.

Each member of the research team should record focused notes of their observations of the PLG meeting using the observation notes template.

The data collected by each of the researchers will be combined/synthesised and used to prepare a 1-2 page vignette describing the PLG meeting. The prepared vignettes will supplement the analysis of data related to PLG meetings collected through the Eskola site.

Observation notes template

Below is the template for recording observation notes. Researchers should record notes detailing the different activities that the PLG engages in using the following structure:

1. Introduction to the meeting
2. 30-minute activity segments
3. Conclusion to the meeting

Some examples of things the research team might take notes about are:

1. How does the meeting start? Are there any warm-up activities? What is the structure of the meeting?
2. What activities are discussed (i.e., lesson planning, classroom management, pedagogical skills, student participation, other activities)? How does the mentor/leader support the teachers for these activities?
3. How does the meeting conclude? How does the group decide what to do for the next PLG?

The researcher can record additional notes (for example, related to the PLG context, or a particular participant that the research team might want to contact for an interview) below the template.

Observation notes

Meeting segment	Segment description
<i>Introduction</i>	
<i>Segment 1 (30 mins)</i>	
<i>Segment 2 (30 mins)</i>	
<i>Segment 3 (30 mins)</i>	
<i>Segment 4 (30 mins)</i>	
<i>Conclusion</i>	

Additional notes:

Appendix G: Consent form

PLMP Case Study Research Participant Information Statement

Thank you for making the time to speak with us. The Australian Council for Education Research (ACER) is conducting a study of the Professional Learning and Mentoring Program (or PLMP). ACER is a research organisation based in Australia: www.acer.org

ACER is conducting research to understand how PLMP has improved teacher quality and student learning. ACER is interested in your views of PLMP. The research is part of a program exploring support to teachers and teaching quality.

ACER will be interviewing school leaders, teachers, inspectors, mentors, education officials, DFAT and PLMP program staff to understand their experiences with PLMP.

The information gathered will be used to assist the Australian Government, Government of Timor-Leste and interested stakeholders to understand the impact of PLMP, so that improvements can be made to PLMP.

Your participation in this study is entirely **voluntary**. You do not need to answer questions that make you feel uncomfortable or that you do not want to answer. You can also withdraw and stop taking part at any time.

Interviews are expected to take approximately one hour. Focus group discussions are expected to take approximately two hours.

If you consent, the interviews and focus group discussions will involve an audio recording and photographs. Audio recordings will assist in note taking and analysis of responses. Photographs may be used for reporting and disseminating this research.

Questions/further information about the project

If you have any questions or require further information please contact:

Dr Elizabeth Cassity
Senior Research Fellow
Elizabeth.Cassity@acer.org

PLMP Case Study Research Participant Consent Form

I, [PRINT NAME], agree to take part in this research study.

I agree that:

- I understand the purpose of the study, and what I am asked to do.
- I have read the Participant Information Statement and have talked about my involvement with the researchers if I wanted to. The researchers answered my questions and I am happy with their answers.
- I understand that being in this study is completely voluntary. I do not have to participate. Nothing will happen if I choose to stop participating.
- I understand that I can withdraw from the study at any time.
- I understand that if I decide to stop participating, I will have the option of having the data returned to me, destroyed, or only used up to the time I wanted to stop.
- I understand that I may refuse to answer any questions I do not want to answer.
- I understand that information that is collected during this project will be stored securely and will only be used for purposes that I have agreed to.
- I understand that the results of this study may be published, and that publications will not contain my name or any identifiable information about me, unless I agree otherwise.
 - Yes, I am happy to be identified.**
 - No, I don't want to be identified.**
- I understand the interview and/or focus group discussion will be audio-recorded to assist in note taking and analysis of responses.
 - Yes, I am happy to be audio-recorded.**
- I understand the researchers may photograph me and use the images for reporting and disseminating this research.
 - Yes, I am happy to be photographed and for my image to be published.**
 - No, I don't want to be photographed**

Signature: _____

Printed name: _____

Date: _____

Appendix H: Field research schedule

Dates	Activity
12-14 September	<p>Field Research Training</p> <p>Day 1: Introductions and overview of research</p> <p>Day 2: Technical aspects of field research including data collection and interview technique</p> <p>Day 3: Review, Peer Learning Group (PLG) observations and methodology, travel logistics.</p>
16-22 September	<p>Manufahi (Dotic Cluster) – Data Collection</p> <p>Day 1: Travel to Same, Manufahi</p> <p>Day 2: Dotic Central School</p> <p>Day 3: Colocau Filial School</p> <p>Day 4: Wesusu Filial School</p> <p>Day 5: Wedaubarec Filial School</p> <p>Day 6: PLG Observation (at Wedaubarec); return to Dili</p>
24 September	<p>Interview with National Mentor, PHD, Dili</p> <p>Debrief with research team</p>
25-29 September	<p>Aileu (Daisoli cluster) – Data Collection</p> <p>Day 1: Travel to Aileu and Daisoli Central School</p> <p>Day 2: Hoholete Filial School</p> <p>Day 3: Colau Filial School</p> <p>Day 4: Lequitura Filial School</p> <p>Day 5: PLG Observation (at Daisoli); return to Dili</p>
30 September	<p>Debrief with DFAT</p>

Appendix I: Field research debrief tool

DAILY DEBRIEF NOTES:

PLMP STUDY FIELD RESEARCH

Debrief information

Municipality	
Cluster	
ACER Researcher	
Belun Researchers	
Meeting Date	

Administration notes

The purpose of daily debrief sessions with ACER and Belun researchers is to document the team’s field research experiences. The research team will meet to discuss the interviews and day’s experiences at the conclusion of data collection for the day (usually in the afternoon). The debrief sessions will enable the team to reflect on any emerging issues and experiences, and discuss how to address these during the sessions. The sessions will also give some indications of themes that may emerge during analysis of data.

Debrief notes

Discussion point	Notes
What are your main observations in the interviews – positive and negative	
Issues that may have affected the interviews	
How to address above issues in the analysis	

Additional notes:

Appendix J: Summary of data sources

The study plan aims to maximise the use of existing data sources, adding additional sources as needed. Table 2 in the evaluation plan presents an overview of the data sources to be used to answer each of the three key research questions. Examples of the types of evidence each source provides in relation to the questions are given, and the data collection points for each data source are provided. Data sources have been designed, where possible, to provide base-, mid- and end-line data to support the examination of the impact of PLMP across the first five-year implementation phase. These were indicative only, with refinements expected over the life of the study. For this interim report, a status report has been provided against specific data sources.

Table 2. PLMP Study – Summary of Data Sources

Research Questions	Data Sources and Examples of Evidence	Collection Points	Responsibility	Status
1. To what extent does the PLMP support improved teaching quality in Timor-Leste?	PLMP Observation Schedule <ul style="list-style-type: none"> • lesson preparation • lesson implementation • classroom set-up and management • pedagogical skills • student participation 	2016-2020	PLMP Program (DFAT Dili Post)	Reviewed
	CFS Classroom Observations <ul style="list-style-type: none"> • range of teaching and learning activities appropriate to lesson content and student group • lesson planning • scheme of work • use of textbooks (curriculum materials) • condition of classroom • professionalism • quality of teaching and learning 	2015	Data collected/available (UNICEF)	Reviewed – uses different methodology to World Bank New Curriculum Evaluation Project therefore cannot be used
		2017	World Bank New Curriculum Evaluation Project (DFAT Dili Post)	Received and analysed
	Case Studies <ul style="list-style-type: none"> • additional classroom observations (triangulation) • review of mentor data related to teaching quality • focus groups and interviews with leaders and teachers related to changes in teaching practices (supports and constraints) 	2017/18-2020	PLMP Research Team	Collected and analysed (excluding classroom observations)

Research Questions	Data Sources and Examples of Evidence	Collection Points	Responsibility	Status
	Focus Group Discussions and Interviews <ul style="list-style-type: none"> perspectives on how PLMP has affected teaching quality in Timor-Leste (for better or worse) unintended effects (positive or negative) 	2017/18-2020	PLMP Research Team	Collected and analysed
2. To what extent does the PLMP support the effective implementation of Timor-Leste's National Basic Education Curriculum?	PLMP Classroom Observations <ul style="list-style-type: none"> lesson preparation lesson implementation classroom set-up and management pedagogical skills student participation 	2016-2020	PLMP Program (DFAT Dili Post)	Reviewed
	CFS Classroom Observations <ul style="list-style-type: none"> range of teaching and learning activities appropriate to lesson content and student group lesson planning scheme of work use of textbooks (curriculum materials) condition of classroom quality of teaching and learning 	2015	Data collected/available (UNICEF)	Reviewed – uses different methodology to World Bank New Curriculum Evaluation Project therefore cannot be used
		2017	World Bank New Curriculum Evaluation Project (DFAT Dili Post)	Reviewed and analysed
		2018/19	<i>Proposed: Dili post</i>	Data collection to be confirmed – likely delayed until 2019/20
	Case Studies <ul style="list-style-type: none"> additional classroom observations (triangulation) review of mentor data related to curriculum implementation focus groups and interviews with leaders and teachers related to new curriculum implementation (supports and constraints) 	2017/18-2020	PLMP Research Team	Collected and analysed (excluding classroom observations)

Research Questions	Data Sources and Examples of Evidence	Collection Points	Responsibility	Status
	Focus Group Discussions and Interviews <ul style="list-style-type: none"> perspectives on how PLMP has affected implementation of the new curriculum (for better or worse) views about affordances and constraints related to new curriculum implementation 	2017/18-2020	PLMP Research Team	Collected and analysed
3. <i>To what extent does teacher involvement in the PLMP lead to improved learning outcomes for Timor-Leste students?</i>	Early Grades Reading Assessment (EGRA)	2009 2016	Data collected/available (World Bank, EMBLI)	2009 data provided not clean – cannot be used 2016 EMBLI data not yet provided – requests being followed up by Dili Post
		2017 2019	World Bank New Curriculum Evaluation Project (DFAT Dili Post)	2019 EGRA collection likely to be delayed – timing to be confirmed by Dili Post
	Early Grades Mathematics Assessment (EGMA)	2011	Data collected/available	Data not yet available
	Curriculum-based Assessment (CBA)	2015 2016	Data collected/available (World Bank, EMBLI)	2016 EMBLI data not yet provided – requests being followed up by Dili Post
		2017	World Bank New Curriculum Evaluation Project (DFAT Dili Post)	Reviewed and analysed
		2018/2019	<i>Dili Post</i>	Data collection to be confirmed, but likely delayed until 2019/20
Case Studies <ul style="list-style-type: none"> PLMP learning assessments including literacy/reading items adapted from EGRA, and items adapted from EGMA adaptation of ACER wellbeing survey (holistic outcomes) additional collection of holistic outcomes data (tbc) 	2017/18-2020	PLMP Research Team	PLMP learning assessments not yet provided; additional collection of holistic outcomes data not planned or funded	

Research Questions	Data Sources and Examples of Evidence	Collection Points	Responsibility	Status
	Focus Group Discussions and Interviews <ul style="list-style-type: none"> • perspectives on how PLMP has affected student learning in Timor-Leste (for better or worse) • unintended effects (positive or negative) 	2017/18-2020	PLMP Research Team	Collected and analysed

Appendix K: Timeline

ACTIVITY	< 2011				2015				2016				2017				2018				2019				2020				RESPONSIBILITY	FUNDER
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
EGRA Sample 1 (2009)																												World Bank	World Bank	
CFS Classroom Observation (2009)																												MoE (TBC)	UNICEF	
EGMA (2011)																												World Bank	World Bank	
Reform Curriculum Materials/MoE Training G1 & G2																												MoE	MoE	
EGRA Sample 2 (EMBLI)																												WORLD BANK	Timor-Leste Post	
CBA Sample 1 (EMBLI)																												WORLD BANK	Timor-Leste Post	
CFS Classroom Observation (UNICEF)																												UNICEF	UNICEF	
Reform Curriculum Materials/MoE Training G3 & G4																												MoE	MoE	
Reform Curriculum Materials/MoE Training G5 & G6																												MoE	MoE	
PLMP Classroom Observation Data																												PLMP Project Team	Timor-Leste Post	
PLMP Peer Professional Learning Group Data																												PLMP Project Team	Timor-Leste Post	
PLMP Evaluation Start Up																												PLMP Evaluation Team	EDC	
Progress Update 1																												PLMP Evaluation Team	EDC	
PLMP Steering Committee 1																												PLMP Evaluation Team	EDC	
EGRA Sample 3 (Eval Impact New Curric)																												WORLD BANK	Timor-Leste Post	
CBA Sample 2 (Eval Impact New Curric)																												WORLD BANK	Timor-Leste Post	
CFS Classroom Observation (Eval Impact New Curric) - TBC																												WORLD BANK	Timor-Leste Post	
Case Study Development (Instruments & Process)																												PLMP Evaluation Team	EDC	
Data Analysis (2009-2017)																													PLMP Evaluation Team	EDC
Progress Update 2																													PLMP Evaluation Team	EDC
PLMP Steering Committee 2																													PLMP Evaluation Team	EDC
Case Study Sample 1																													PLMP Evaluation Team	EDC
National Focus Groups and Interviews 1																													PLMP Evaluation Team	EDC
Data Analysis (2009-2018)																													PLMP Evaluation Team	EDC
Interim Report 1																													PLMP Evaluation Team	EDC
PLMP Steering Committee 3																													PLMP Evaluation Team	EDC
CFS Classroom Observation (Eval Impact New Curric) - TBC																													TBC	ODE
Progress Update 3																													PLMP Evaluation Team	EDC
PLMP Steering Committee 4																													PLMP Evaluation Team	EDC
Case Study Sample 2																													PLMP Evaluation Team	EDC
National Focus Groups and Interviews 2																													PLMP Evaluation Team	EDC
Data Analysis (2009-2019)																													PLMP Evaluation Team	EDC
Interim Report 2																													PLMP Evaluation Team	EDC
PLMP Steering Committee 5																													PLMP Evaluation Team	EDC
CBA Sample 3																													TBC	ODE
EGRA Sample 4																													WORLD BANK	Timor-Leste Post
Progress Update 4																													PLMP Evaluation Team	EDC
PLMP Steering Committee 6																													PLMP Evaluation Team	EDC
ODE Multi-country Evaluation Report																													ODE	ODE
PLMP Steering Committee 7																													PLMP Evaluation Team	EDC
Case Study Sample 3																													PLMP Evaluation Team	EDC
National Focus Groups and Interviews 3																													PLMP Evaluation Team	EDC
Data Analysis (2009-2020)																													PLMP Evaluation Team	EDC
PLMP Steering Committee 8																													PLMP Evaluation Team	EDC
Submit Final Report																													PLMP Evaluation Team	EDC