



Education Analytics Service (EAS)

Teacher Development Multi-Year Study Series:

Evaluation of Australia's Investment in Teacher
Development in Lao PDR

Baseline Report

July 2021



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	Authors
1	19 November 2019	Draft 1 submitted	Debbie Wong, Hilary Hollingsworth, Prue Anderson, Paul Weldon, Louise Ockwell, Renee Kwong, Clare Ozolins
2	12 May 2020	Final report submitted, reflecting comments received from DFAT and BEQUAL	Debbie Wong, Hilary Hollingsworth, Louise Ockwell
3	25 March 2021	Final Report reflecting comments received from Lao PDR MoES	Debbie Wong, Hilary Hollingsworth

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Abbreviations and acronyms

Word	Meaning
ACER	Australian Council for Educational Research
ASLO	Assessment of Student Learning Outcomes
BEQUAL	Basic Education Quality and Access in Lao PDR
CAPI	computer assisted personal interviewing
COP	community of practice
DESB	District Education and Sports Bureau
DFAT	Department of Foreign Affairs and Trade (Australia)
DIF	Differential item function
EAS	Education Analytics Service
EDC	Education Section (DFAT)
EMIS	Education Management Information System
EOPO	End of program outcome
ESG	education support grants
ESQUAC	Education Standard Quality Assurance Centre (MoES)
G1, G2	Grade 1, Grade 2
GEDSI	gender equality, disability and social inclusion
IEC	Independent Evaluation Committee (DFAT)
IRL	Indochina Research Laos
IRT	Item response theory
JICA	Japanese International Cooperation Agency
LADLF	Laos-Australia Development Learning Facility
M&E	Monitoring and Evaluation

Word	Meaning
MoES	Ministry of Education and Sports
obs	observed
ODE	Office of Development Effectiveness (DFAT)
PA	Pedagogical Adviser
PEPI	Primary Education Performance Index
PESS	Provincial Education and Sports Service
rep	reported
RIES	Research Institute for Educational Sciences
SAL	self-access learning
TEI	Teacher Education Institution
VEDC	Village Education Development Committee

Executive summary

This report constitutes the Baseline Report of the multi-year study of the Australian Government Department of Foreign Affairs and Trade's (DFAT) investment in teacher development in Lao PDR through the Basic Education Quality and Access in Laos program (BEQUAL). This Lao PDR study is part of a three-country multi-year study series on teacher development, in response to DFAT's Office of Development Effectiveness' 2015 *Investing in Teachers* report.

This study is framed within the context of Lao PDR's staged introduction of a new primary education curriculum, and accompanying in-service teacher professional development support. The overall aim of this study is to investigate the teacher professional development component to answer the question: **to what extent does BEQUAL support improve teaching quality and student literacy in Lao PDR?**

This report provides a baseline related to two specific questions:

Question 1.

To what extent and how does teaching quality change following BEQUAL-supported in-service program?

Question 2.

To what extent and how do students' literacy outcomes change following the new curriculum implementation?

Teaching itself is a 'noise-filled' context. There are a number 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 adopts a mixed methods approach utilising both quantitative and qualitative methods, and is longitudinal, designed to follow cohorts of students, teachers and principals over the course of the four-year study period as the new BEQUAL-supported national Lao language curriculum is rolled out. This baseline study was conducted prior to any BEQUAL support for Grade 1 implementation of the new primary curriculum; that is, prior to BEQUAL supported curriculum materials reaching schools and prior to any teacher training related to the new curriculum.

Various groups of educational stakeholders were involved in this baseline study. These included Grade 1 (G1) teachers, principals, pedagogical advisers (PAs) and G1 students within BEQUAL's 32 target districts. Quantitative data was collected via questionnaires administered in 355 schools to 347 G1 teachers and 348 principals, as well as a G1 Lao language literacy test and student background questionnaire administered to 2,269 G1 students. Across 12 case study schools 34 interviews and 30 classroom observations of G1 Lao language lessons were completed.

The completion of this baseline study is the product of a strong and collaborative partnership that was developed between the Australian Council for Educational Research (ACER), the Laos Australia Development Learning Facility (LADLF), DFAT's Vientiane Post and Education Section, the Ministry of Education and Sports (MoES), the BEQUAL program team, and an in-country team of data collectors and researchers. It is important to recognise that the design and implementation of this baseline study was undertaken over a very short time period. The strong collaboration between partners ensured there was good communication, well-targeted instrument design, and high quality

protocols and quality assurance processes in place. However, one challenge with the quick mobilisation for this study was access to participants as data collection took place close to the end of the school year and at the beginning of the rainy season.

Summary of findings

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



Finding 1.

The data collection successfully captured existing G1 teacher knowledge, attitudes and practices:

- While teachers generally indicate confidence regarding their Lao language teaching overall, most are not aware of the new pedagogies which reflect the new curriculum.
- Teachers currently have a limited range of pedagogical approaches for teaching Lao language, and use a limited set of resources.
- The majority of teachers whose native language is other than Lao use a mother tongue language while teaching Lao on some occasions.
- Teachers currently use a narrow range of methods to assess student learning.
- There is much variation across the regions as to teachers' access to in-service training.



Finding 2.

The data collection captured factors that support or impede teachers' existing practice:

- Most teachers receive support from their principal for Lao language teaching, such as assistance with preparing materials, lesson planning, pronunciation and teaching methods.
- Teachers in schools generally work regularly with other teachers on Lao language teaching.
- While some teachers receive visits from their PAs, frequency of visits vary by region. A limited budget for monitoring and travel is a common challenge for PAs.
- Access to Lao language resources is prioritised by teachers and principals as important supports for improving Lao language teaching.
- Challenges related to shortage/inadequacy of instructional materials is reported as the primary issue in schools.
- Teachers rank G1 students' low Lao language skills as the greatest challenge for making progress in learning.



Finding 3.

The data collection revealed that student absenteeism is extensive:

- One-third of the G1 student sample did not participate in the testing. This is likely due to a range of factors, including timing of the data collection which was late in the school year. Participation was almost even between girls and boys.
- Student absenteeism is a key issue highlighted by teachers as a challenge to Lao language learning.



Finding 4.

The data collection successfully captured existing G1 students' literacy outcomes:

- Approximately 40 per cent of students demonstrate Lao language literacy skills ranging from very basic to proficient and 60 per cent demonstrate limited, very limited or no Lao language literacy skills at all.
- There is regional variation in student test performance.
- There is no difference in average test performance of male and female students.
- Students' home language is associated with test performance. Students who speak Lao-Tai at home answer slightly more test items correctly than students who speak other languages at home. Students in classes where a mother tongue language is frequently used tend to have poorer test performance.
- Higher levels of student absenteeism is associated with poorer student test performance.
- There are very small differences between student test performances and teachers' type of pre-service training and their participation in in-service training.

The next steps for this study involve preparing for the midline data collection. Originally planned for March/April 2020, the midline data collection has been postponed due to the COVID-19 pandemic. DFAT is working with ACER and partners on next steps and timeframes for the study.

1 Introduction

1.1 ‘Investing in Teachers’

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* (DFAT, 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 (DFAT, 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’ (DFAT, 2015, p. 12).

To implement that commitment, a Conceptual Framework was prepared by DFAT’s Education Analytics Service (EAS), managed by the Australian Council for Educational Research (ACER), with a view to frame and guide teacher development multi-year studies in Timor-Leste, Lao PDR and Vanuatu, and to ensure a minimum of consistency across the studies (ACER, 2017). In each of these countries, reform of the primary education curriculum is underway. The teacher development studies are investigating teaching quality and student learning through the implementation of pedagogical practices and strategies promoted in the curriculum reforms in each location. Specifically, and as agreed with various stakeholders during the scoping of each study, the focus is on investigating changes to the repertoire of teaching skills used, rather than on investigating teacher competence in core domains.

This report constitutes the Baseline Report of the multi-year study of DFAT’s investment in teacher development in Lao PDR through the Basic Education Quality and Access in Laos program (BEQUAL).

1.2 Lao PDR context

Lao PDR is an ethnically, culturally and linguistically diverse landlocked country. It has 50 official ethnic groups, with an estimated 84 languages spoken (Carson, 2018). An estimated 62 per cent of the population are of the Lao-Tai language group and have Lao or a dialect of Lao as their mother tongue (BEQUAL, 2018). Around 67 per cent of the population live in rural areas, mostly inhabited by multiple ethnic communities. Many in these areas are primarily dependent on family farming livelihoods (Crawford, 2017).

Over the past decade, Lao PDR has made progress in human development and poverty reduction. However, progress is uneven across regions and among ethnic groups and there are significant challenges for the delivery of all social services, including education. A high rate of children under five years are stunted (33%) (Lao Statistics Bureau, 2018). Low levels of educational achievement

means a skilled workforce is scarce, presenting challenges to economic growth and diversification of the economy (DFAT, 2018).

1.2.1 An overview of primary education in Lao PDR

The education sector comprises of pre-primary (crèche, kindergarten and pre-primary schools), primary, lower secondary and upper secondary. Basic education is defined as primary (Grades 1-5) and lower-secondary (Grades 6-9). Many primary schools are 'incomplete' and do not offer all five grades (DFAT, 2014). There is a high number of schools with multigrade classes. Of the country's 8,571 public primary schools in 2017/18, 11 per cent had only one teacher and 17 per cent had only two teachers (BEQUAL, 2018).

Lao PDR is divided into 18 provinces and 148 districts, each of which includes political and administrative arms responsible for education. The Ministry of Education and Sports (MoES) administers the education system at the central level and is responsible for allocating financial and human resources for national functions, policy setting and monitoring compliance. At the sub-national level, provincial line agencies allocate resources for recurrent salary and non-salary expenditures. Education policy delivery is driven by the Provincial Education and Sports Services (PESS) and District Education and Sports Bureaus (DESB) (The World Bank, 2018) (Lao-Australia Development Learning Facility, n.d.) (Ministry of Education and Sports, Lao PDR, 2018).

While according to MoES data, Lao PDR has achieved close to universal primary education and gender parity in primary enrolment (*Note: official rates may overstate the true level of access to primary education*) high rates of drop-out and repetition continue to be an issue. The 2017 Assessment for Student Learning Outcomes (ASLO) indicated low levels of proficiency in Lao language and mathematics (Ministry of Education and Sports, Lao PDR, 2018).

National data mask large variations across ethnic groups and geographical areas. Areas which are predominantly rural and remote subsistence agricultural communities with significant ethnic and linguistic diversity tend to perform more poorly in primary education (Lao-Australia Development Learning Facility, n.d.). The official language of instruction is Lao, which many children from these areas do not speak. Furthermore, children in these areas have very limited exposure to print before starting schooling (ACER, 2015).

The quality of teaching is also an issue. Pedagogy has traditionally emphasised rote learning. There are also difficulties in attracting and maintaining qualified teachers in remote and ethnic areas. This contributes to a large number of in-complete schools and multi-grade classes (DFAT, 2014). Volunteer teachers account for around 10 per cent of the country's public primary teachers. The minimum qualification to train as a teacher is lower-secondary graduation (Hudson, 2014).

1.2.2 The Basic Education Quality and Access program in Lao PDR

BEQUAL's program logic includes two End of Program Outcomes (EOPO) focussing on improving governance systems and improving teaching practices, with the ultimate goal to improve learning outcomes for primary school-age children (see Figure 1 below).

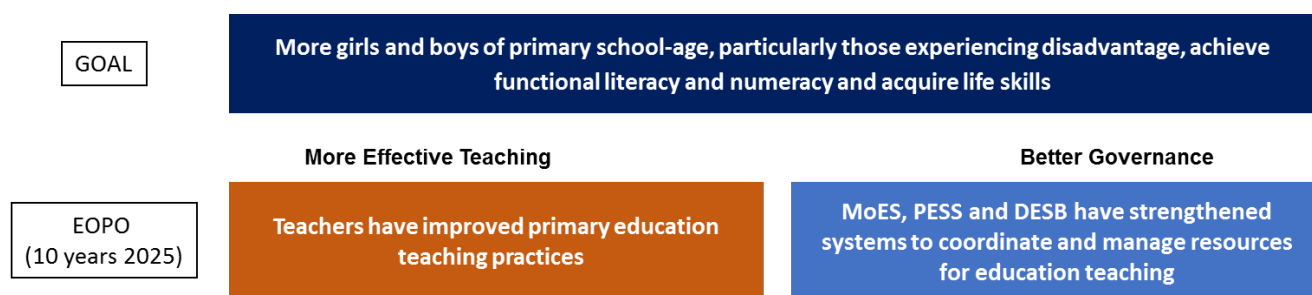


Figure 1: BEQUAL's program logic – higher outcomes

Following a mid-term review in 2017, BEQUAL's efforts have re-focussed on the development and support to the MoES' implementation of a new primary education curriculum. The new curriculum is being rolled out in stages.

From September 2019 and September 2020, grade 1 (G1) and then grade 2 (G2) teachers will be expected to teach Lao language and other subjects using the new curriculum and teacher guides, which are understood as being comparatively more prescriptive than the current curriculum, and other supplementary teaching and learning resources (for Lao language these include storybooks, decodable readers, flashcards, and pictures). The new curriculum requires a number of specific teaching practices to be implemented, including practices that promote inclusive education (that is, student centred learning and localised curriculum), active learning, and formative assessment of student learning.

BEQUAL EOPO1 "More Effective Teaching" is therefore understood as the alignment of teaching practice with the new curriculum. BEQUAL EOPO 2 "Better Governance" refers to the expected increased capacity of government line agencies to support teachers to implement the new curriculum.

BEQUAL's in-service teacher professional development program, which commenced training of G1 teachers in July 2019, includes the following packages:

- At the national level Education Support Grants (ESGs) for Provincial Education and Sports Services (PESS) to provide face-to-face teacher orientation training on the new curriculum materials. For G1 it was a six day training. For G2 the training duration will be reduced to five days due to budget pressures. For G1, all public school teachers, principals and pedagogical advisers (PAs) were to be trained. For G2, principals will not be included in the training.
- In 32 targeted districts, additional in-service support to teachers and principals through various activities aimed at strengthening communities of practice (e.g. peer-to-peer support, networking, etc.), promoting teacher use of self-access learning resources and tools; and supporting schools to implement the new curriculum (e.g. through PA monitoring visits, teacher cluster meetings to discuss specific issues, etc.), and providing district level ESGs to the targeted districts.

1.3 Objectives and scope of study

In line with the Conceptual Framework, the overarching question that frames this study is:

To what extent does BEQUAL support improve teaching quality and student literacy in Lao PDR?

This will be investigated through two areas of inquiry: A) Teaching Quality (BEQUAL EOPO1) and B) Student Literacy Outcomes (BEQUAL goal), as presented in Table 1, over a four year period (2019-2022) with baseline, midline and endline data collection, analysis and reporting:

Table 1: Study questions

Key questions	Sub-questions
A) Teaching Quality To what extent and how does teaching quality change following BEQUAL-supported in-service program?	A1. To what extent do teachers' knowledge, attitudes and practices, change following the in-service program? A2. What factors enable or impede teachers aligning their practice to the new curriculum?
B) Literacy Outcomes To what extent and how do students' literacy outcomes change following the new curriculum implementation?	B1. To what extent do students' literacy outcomes change following the new curriculum implementation? B2. How does the new curriculum influence students' attitudes and disposition towards learning? B3. Do changes in teaching quality correlate with changes in students' literacy outcomes?

It is important to note the following decisions with regard to the scope of the study:

- BEQUAL's support to the pre-service program is not part of this study. This decision was based on the long period of time between teachers undertaking pre-service training and teaching in a classroom (for example, the first graduates who will have been trained using the new pre-service curriculum will only reach classrooms in September 2022), and additional complexities this poses to attribution.
- Although BEQUAL is not accountable for delivering or assessing achievements at goal level of improving student learning outcomes, DFAT has a strong desire to understand the potential impact of its investment on learning outcomes in the longer term. This study will focus on assessing changes in students' literacy outcomes in line with BEQUAL's goal and based on the content and pedagogy of the new Lao language curriculum. This study will not include assessment of numeracy outcome (Japanese International Cooperation Agency (JICA) is responsible for the revision and implementation of the primary mathematics curriculum). The assessment of student acquisition of "life skills" is also excluded given the limited focus of BEQUAL's support to this area.

- Whilst EOPO2, “Better Governance”, will be investigated as part of a separate study, the research team acknowledges the role and importance of support systems in defining the enabling environment for teacher development and student learning outcomes in Lao PDR.

The purpose of this baseline study is to capture details related to existing levels of teaching quality and student literacy outcomes for G1 teachers and G1 students prior to rollout of the new Lao language curriculum and associated training. This includes:

- teachers’ existing knowledge, attitudes and practices related to Lao language teaching
- factors that support or impede existing Lao language teaching practice
- students’ existing literacy outcomes
- factors associated with different levels of student performance in Lao language
- students’ existing attitudes and dispositions towards learning.

The report begins with a summary review of the methodology for this study, and then presents baseline findings against these five areas of investigation.

1.4 Partnership and collaboration

ACER under the EAS has been commissioned to manage the teacher development multi-year study series and provide technical oversight and support as needed. In Lao PDR, the Laos Australia Development Learning Facility (LADLF) offers in-country capacity to support the study baseline implementation, and as such LADLF and EAS/ACER have partnered to design the study and conduct the baseline. Together, ACER and LADLF have worked collaboratively with DFAT Vientiane Post and EDC, MoES and the BEQUAL program team in the design and implementation of this study. This collaborative approach began in October 2018 through a joint scoping workshop for the study, which resulted in the development of an evaluation plan which was approved by DFAT in March 2019.

DFAT Vientiane Post and LADLF have also had separate engagement with MoES’ Research Institute for Educational Sciences (RIES) on the study design, as well as MoES’ PESS and DESB offices who have facilitated data collection processes. Indochina Research Laos (IRL) was contracted to conduct the in-country data collection for the questionnaire and tests, and LADLF identified individual researchers to undertake the case study work. The authors of this report acknowledge that the strong partnerships forged between these partners, have culminated in this baseline study report.

2 Methodology

2.1 Overall study design

The *Evaluation of Australia's Investment in Teacher Development in Lao PDR – Evaluation Design* (LADLF & ACER, 2019) and *EAS: Teacher Development Multi-Year Studies – Conceptual Framework* (ACER, 2017) provide the rationale and overall approach for this Lao PDR study.

A key feature of the teacher development study series 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 investments, and enables an agile and adaptive approach that is responsive to contextual affordances and limitations. The study timeline spans four years, from 2019 until 2022, with three points of data collection – baseline (2019), midline (2020) and endline (2021).

As per the study series, this Lao PDR study adopts a mixed methods approach utilising both quantitative and qualitative methods. However, in addition, it is longitudinal, designed to follow cohorts of students, teachers and principals over the course of the study period as the new Lao language curriculum is rolled out:

- Change in teaching quality is investigated pre- and post- BEQUAL in-service support, with the endline planned at the end of the second year of G1 new curriculum implementation and first year of G2 new curriculum implementation.
- Change in student literacy outcomes is investigated through three consecutive cohorts of students at their completion of G1 and G2. Cohort 1 includes G1 students being taught under the current curriculum and who complete G1 in May 2019; Cohort 2 is the first cohort of students being taught under the new curriculum and who complete G1 in May 2020; and Cohort 3 is the second cohort of students being taught under the new curriculum and who complete G1 in May 2021.

2.2 Instruments

Table 2 below summarises the data collection tools used for the study. These instruments were designed by ACER, with input from LADLF, BEQUAL, IRL and case study researchers. The research team acknowledges contributions from development partners in Laos, including Plan International, Catholic Relief Services, Save the Children, the MoES' Education Standard Quality Assurance Centre (ESQUAC), who provided lessons learned from their experiences assessing students in Lao PDR and shared sample instruments. The research team also built on experience gained from ACER's involvements in the development of ASLO and SEA-PLM assessments in Lao PDR, as well as experience in other contexts.

Table 2: Summary of data collection tools

Tools	A. Teaching quality	B. Literacy outcomes
1. Survey of teachers and principals	<ul style="list-style-type: none"> Quantitative data on change in teachers' knowledge, attitudes and practices. 	<ul style="list-style-type: none"> Correlation between students' literacy levels and different teaching practices (aligned or not aligned with new curriculum)
2. G1 and G2 Lao language literacy test¹		<ul style="list-style-type: none"> Quantitative data on students' literacy levels at G1 and G2, and improvement between end of G1 and end of G2, with comparison between cohorts of students studying the previous curriculum and students studying the new curriculum.
3. School case studies in 12 schools located in 6 districts	<ul style="list-style-type: none"> Classroom observation of teacher attitudes and practices in the classroom. Qualitative data on change and factors of change in teachers' knowledge, attitude and practices. Principal and PA's perceptions of challenges and change in teaching quality 	<ul style="list-style-type: none"> Classroom observations of students' attitudes and dispositions toward learning. Teachers' and principals' perceptions of change in students' literacy outcomes. Qualitative data on the relation between students' participation and teaching quality
4. Secondary data	<ul style="list-style-type: none"> BEQUAL M&E data on in-service program 	<ul style="list-style-type: none"> Grade 3 ASLO literacy results (nationally and at provincial level)²

2.3 Sampling

The study includes three data collection activities across BEQUAL's targeted 32 districts in Lao PDR. These include a sample survey of G1 and G2 teachers and principals from public primary schools, a sample survey of principals in these schools and a sample survey of G1 and G2 students in the classrooms of surveyed teachers.

The sample was designed by LADLF to be representative of the public primary schools in these districts. A sample size of 362 schools was established by LADLF, with the aim of achieving 95 per cent confidence intervals of within five per cent of an estimated teacher percentage outcome. The sample size was also determined in anticipation of an attrition rate of up to 20 per cent. Figure 2 illustrates the sampling approach.

¹ Due to the COVID-19 pandemic and postponement of the midline data collection originally planned for 2021, there may be a change to grade levels tested in this study.

² ASLO G3 baseline data has been collected by MoES/RIES in May 2018 and endline data is planned to be collected in May 2022 (if funding is available). Should they be available, the analysis of these datasets will provide information on change in literacy level of G3 students and with endline data assessing first cohort of students to be taught under the new curriculum.

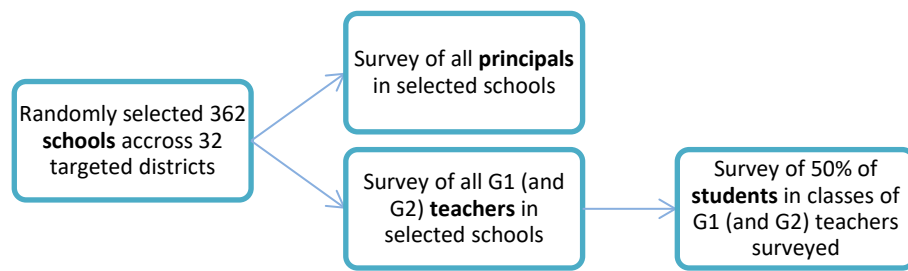


Figure 2: Sampling approach for quantitative data

Appendix B provides further detail on the sampling outcomes. Schools were selected with equal probability. Therefore, the probability of selection for students or teachers is not accounted for in the design, and not equal. This design was optimised for the school level rather than for teacher or student level analysis.



A purposive sample comprised 12 case study schools in six districts in three BEQUAL targeted provinces located across the country (see Table 3). The six districts were selected to include a mix of high and low education performing districts, applying the Primary Education Performing Index (PEPI). Schools were then selected on the basis of being in the same 'cluster'. Advice was provided by DESB on other criteria, to ensure inclusion of schools that are ethnically diverse and represent a diversity of contexts.

Table 3: Case studies sample

Region	Province	District Name	PEPI ³ District Rank	School ID for Study
North	Luangnamtha	Nalae	9	School_A
	Luangnamtha	Nalae	9	School_B
	Luangnamtha	Long	105	School_C
	Luangnamtha	Long	105	School_D
Central	Khammouane	Xebangfay	26	School_E
	Khammouane	Xebangfay	26	School_F
	Khammouane	Nakai	142	School_G
	Khammouane	Nakai	142	School_H
South	Sekong	Thateng	136	School_I
	Sekong	Thateng	136	School_J
	Sekong	Dakcheung	147	School_K
	Sekong	Dakcheung	147	School_L

2.4 Quantitative

The quantitative data collected for the baseline study includes the teacher and principal questionnaires, and G1 test. This data was collected over two weeks from 7 to 20 May 2019, prior to the end of the school year.

The quantitative analysis for the questionnaire data used a range of methods: descriptive statistics; factor analysis to determine factors underlying sets of similar items in the questionnaires; correlational analysis to determine the relationship between two factors or variables; and item response theory (IRT) to construct a metric for expressing teacher- and principal- level factors measured by the questionnaires.

At this stage of the study, it is not possible to use IRT to construct a meaningful proficiency scale for reporting cognitive test performance. This will be possible in the midline study. For this report, G1 student test performance was therefore predominantly analysed using percentage of test items answered correctly.

Due to the design of the sample, and the absence of population level data to inform design and weighting, standard errors which take into account the complex sample design could not be computed for any of the estimated parameters presented in this report. This limited how the data can be analysed including the ability to use significance tests for any observed differences between groups. For the same reason, caution needs to be used when interpreting the results presented in this report.

Further details about methodology are in Appendix B.

³ PEPI is the Primary Education Performance Index developed by LADLF using 2017 data. This is a measure of primary education performance at the district level using net enrolment, drop-out, repetition, survival and completion rates. Number 1 is the highest performing district, and 148 the lowest.

2.5 Qualitative

Case study methodology enables rich descriptions of programs and stakeholder insights, and is ideal for the multi-perspective analysis required for the Lao PDR study. As detailed above, 12 schools were selected for the case study sample. These schools will be investigated for the study period.

Stakeholder interviews and classroom observations were the primary data collection methods for the case studies. A team of six researchers (grouped into three pairs of one lead researcher and one supporting researcher) collected the data from 29 April to 10 May 2019.

Thirty-four interviews (15 teachers, 12 principals and seven district PAs) were completed for the case studies. These were semi-structured interviews. Interviews were conducted in Lao and transcribed into English for analysis. The researchers also conducted 30 classroom observations of G1 Lao language lessons, or two lessons per teacher. The classroom observation tool was purposefully designed to capture information relevant to this teacher development study. It included four main sections: 1) Background information (details including school, teacher, grade, lesson time); 2) Pre-lesson tasks (details including lesson number, lesson plan, notes related to lesson preparation); 3) Lesson observation template (details of direct observations during the lesson, including items in three foci areas – student-centred activity, formative assessment, inclusiveness); 4) Post-lesson tasks (details including resources for Lao Language teaching and learning, classroom set up, classroom environment, additional notes to inform understanding of the lesson).

Analysis of the data occurred over two phases. ACER designed this process to enable active involvement of lead researchers in the initial data analysis process, acknowledging that they had extensive and rich knowledge to contribute to the analysis process based on their case study experience.

Firstly, ACER and LADLF worked with the three lead researchers during a 2.5 day data analysis workshop to map interview and observation data against high-level themes identified by ACER. These high-level themes aligned with those identified in the Conceptual Framework (ACER, 2017) and key sub-questions in the study. (See Appendix A ‘conceptual model’ which illustrates a customised model for this Lao PDR study). In this workshop, the researchers identified core sub-themes and additional themes and presented on these. Through facilitated discussion, these sub-themes were then refined.

The second stage of work involved ACER conducting more detailed analysis of the interview transcripts. This involved collating evidence from interview data against the sub-themes identified in the data analysis workshop to look both within schools and across schools (and regions) for similarities and differences, and tabulating responses.

ACER then analysed the classroom observations. This involved reviewing the contextual information recorded by researchers, creating observation maps by theme (interactions, pedagogy, gender, inclusivity), undertaking quantitative analysis of theme activities observed across the duration of lessons, and reviewing records of the classroom environment.

A primary objective for this baseline study was to create visual displays of the data in an attempt to understand and represent the rich detail, and facilitate the ability to monitor changes over the study period. These visual displays included, for example tables with symbols representing presence and

absence of an observed or reported event, and tables with colour mapping representing case study themes evident across locations.

Further details about methodology are in Appendix B.

2.6 Study limitations

There are some limitations to the Lao PDR 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 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. In addition, in developing contexts, there are often multiple donor programs providing supports to schools and systems, and it is difficult to associate particular changes directly to any single intervention. 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 BEQUAL across Lao PDR. Case studies are intended to explore the experience of the investment by educational stakeholders in a small sample of schools, but across a multitude of variables. In this way, the case studies are intensive rather than extensive. The ability to extract this level of detail from the investment is an important part of the overall study design.

2.7 Participants

Various groups of stakeholders were involved in this baseline study. These included G1 teachers, principals, PAs and G1 students.

In total 362 target schools were included in the baseline study sample. As shown in Table 4, data was collected from 355 schools (seven schools were dropped mainly as they did not have G1 classes). This section will describe the characteristics of the teachers, principals and students who participated in the surveys and G1 testing. A description of the 12 case study schools follows.

Table 4: Survey locations

Province	Districts	Number of schools
Khammouane	6	61
Luangnamtha	4	34
Phongsali	5	43
Saravane	5	61
Savannakhet	9	131
Sekong	3	25
Total	32	355

2.7.1 Teacher and principal sample

For the baseline study, teacher and principal study IDs were issued to 375 G1 teachers and 355 principals, respectively. Once absent and substitute teachers and principals were removed, the achieved sample was 347 G1 teachers and 348 principals. Table 5 presents these samples by province.

Table 5: Teacher and principal achieved sample, by province

Province	No. of Teachers	% of Teachers	No. of Principals	% of Principals
Khammouane	62	17.9	60	17.2
Luangnamtha	33	9.5	34	9.8
Phongsali	45	13.0	39	11.2
Saravane	57	16.4	61	17.5
Savannakhet	126	36.3	129	37.1
Sekong	24	6.9	25	7.2
Total	347	100.0	348	100.0

Gender, age and professional status

As shown in Table 6, just over half of the teachers (55%) were female, with an average age of 36 years. In contrast, 77 per cent of the principals were male, with an average age of 40 years.

Table 6: Gender and average age of surveyed teachers and principals, by province

Province	Teachers (Male %)	Teachers (Female %)	Teachers' Ave. Age	Principals (Male %)	Principals (Female %)	Principals' Ave. Age
Khammouane	46.8	53.2	33.3	81.7	18.3	41.4
Luangnamtha	48.5	51.5	34.1	82.4	17.6	37.7
Phongsali	26.7	73.3	36.1	59.0	41.0	37.2
Saravane	49.1	50.9	35.6	82.0	18.0	40.0
Savannakhet	50.0	50.0	37.5	72.9	27.1	41.7
Sekong	37.5	62.5	32.9	92.0	8.0	39.8
Total	45.2	54.8	35.6	76.7	23.3	40.3

The majority of teachers (83%) were government permanent employees, but 16 per cent were volunteer teachers, as per Table 7. Khammouane, in particular, has a high percentage of volunteer G1 teachers at 29 per cent, compared to Sekong which has none.

Table 7: Professional status of surveyed teachers, by province

Province	% Government Permanent	% Contract	% Volunteer
Khammouane	69.4	1.6	29.0
Luangnamtha	90.9	-	9.1
Phongsali	86.7	4.4	8.9
Saravane	89.5	1.8	8.8
Savannakhet	80.2	0.8	19.0
Sekong	100.0	-	-
Total	83.0	1.4	15.6

Education and experience

All teachers and all but one principal surveyed indicated that they had graduated from Teacher Training College. Only about two per cent of teachers and principals had undertaken basic training (5+3, 8+1, 8+2), and most had completed mid-level (8+3, 11+1) or high-level teacher training (11+3, 11+4)⁴. A higher proportion of principals (49%) had completed high-level training compared to G1 teachers (34%).

Years of teaching experience for teachers surveyed ranged from less than one year to 41 years, with an average of 14 years. Twenty per cent had been teaching for five years or less. G1 teaching experience ranged from less than one year to 34 years, with 59 per cent of teachers having five years or less experience teaching G1. Teachers had been teaching at their current school for 6.4 years on average. Almost three-quarters of teachers (73%) had taught at more than one school.

On average, principals had about eight years of experience in the role, with just under half (45%) having been a principal for five years or less, about one third (31%) for between six to 10 years and one quarter (24%) for more than 10 years. Principals had been at their current school for five years on average. About two thirds of principals (64%) had been at their current school for up to five years, one fifth (22%) for six to 10 years and 15 per cent for longer than 10 years.

Most surveyed principals (91%) teach regularly in addition to their role as principal, with only about five per cent indicating that they teach occasionally, and five per cent not teaching. Of those who teach, just over one quarter (27%) taught G1 students.

Language

In total, 57 per cent of teachers surveyed indicated that Lao-Tai was their mother tongue (refer Table 8). All other teachers indicated that they could speak Lao-Tai fluently. More than half of all teachers spoke a second language (52%). When considered by language, only 17 per cent of Lao-Tai speakers spoke another language fluently whereas nearly 95 per cent of Mon-Khmer speakers spoke an additional language, and speakers of other languages all spoke one or two additional languages.

⁴ These represent the different teacher education programs in Lao PDR. For example: '5+3' involves five years of primary education plus three years at a Teacher Education Institution (TEI); '8+1' involves five years of primary and three years of lower secondary education (8) plus one year at a TEI; '11+3' involves five years of primary, three years of lower secondary and three years of upper secondary education (11) plus three years at a TEI.

Table 8: Surveyed teachers and principals' languages spoken as a mother tongue and fluently

Province	% of Teachers Who Speak Lao-Tai As Mother Tongue	% of Teachers Who Speak Lao-Tai Fluently	Teachers' Total %	% of Principals Who Speak Lao-Tai as mother tongue	% of Principals Who Speak Lao-Tai Fluently	% of Principals Who Speak Other Languages / Not Fluent in Lao-Tai	Principals' Total %
Khammouane	79.0	21.0	100.0	91.7	8.3	-	100.0
Luangnamtha	45.5	54.5	100.0	70.6	29.4	-	100.0
Phongsali	26.7	73.3	100.0	43.6	53.8	2.6	100.0
Saravane	66.7	33.3	100.0	68.9	31.1	--	100.0
Savannakhet	63.5	36.5	100.0	65.1	34.9	-	100.0
Sekong	20.8	79.2	100.0	24.0	76.0	-	100.0
Total	57.3	42.7	100.0	65.5	34.2	0.3	100.0

Among principals surveyed, Lao-Tai as mother tongue was more common (66%) than for teachers (57%). In the provinces of Khammouane, Luangnamtha and Phongsali, the proportion of principals whose mother tongue is Lao-Tai was notably higher than for G1 teachers. Half of all principals could speak at least one other language fluently. About one quarter of principals (24%) whose mother tongue was Lao-Tai spoke another language fluently. All principals whose mother tongue was not Lao-Tai indicated that they spoke at least one other language fluently.

2.7.2 Student sample

For the baseline study, there were 3,367 in the student sample (refer Table 9) after following the in-school sampling procedures. It should be noted that as one third of student data were missing due to absenteeism or withdrawal of consent, the number of students who participated in the G1 testing was 2,269.

Table 9: Student sample, by province and gender

Province	Target N	Target %	Actual N	Actual %	Actual N Male	Actual N Female
Khammouane	468	13.9	316	13.9	155	161
Luangnamtha	241	7.2	218	9.6	103	115
Phongsali	291	8.6	236	10.4	112	124
Saravane	676	20.1	434	19.1	238	196
Savannakhet	1379	41.0	862	38.0	445	417
Sekong	312	9.3	203	8.9	98	105
Total	3367	100.0	2269	100.0	1151	1118

Note: Final numbers of student did not include absent students.

Information about each student was gathered through the student background questionnaire completed by either the G1 teacher or principal.

Gender and age

The sample consisted of 1,779 boys and 1,588 girls (53% male, 47% female). Half of the sample (50%) were aged between seven and nine years, 45 per cent aged six or below, and five per cent were aged 10 or above. Half of the students aged six and below were male (51%). In the other two age groups, slightly more than half (54%) of students in each age group were male.

Participation in kindergarten or pre-school and repetition

Half of the sample (52%) had attended kindergarten or pre-school, and one in five students (20%) were repeating G1. Slightly more than half (54%) of the students who attended kindergarten or pre-school were male, and 52 per cent of the students who did not attend were male. Slightly more than half (55%) of the students who were repeating G1 were male, and 52 per cent of the students who were not repeating were male.

Disability

One objective of this study was to gather data about children with disabilities. Teachers (or principals) were asked about each student (tested and absent) having difficulty doing activities due to health problems. The categories were based on the Washington Group guidance (Washington Group, 2016). With the exception of item (c) (walk or climb stairs), the questions were all answered in the same way. That is, the same 13 students had 'a lot of difficulty' with:

- (a) seeing, even if wearing glasses;
- (b) hearing, even if using a hearing aid;
- (d) remembering or concentrating;
- (e) doing things independently (for example going to the toilet, putting on clothes, taking out books); and
- (f) speaking their usual language (for example does not speak, has delayed speech, has speech impediment due to cleft palate, speech cannot be understood by others).

Similarly, another group of 35 students were marked by teachers (or principals) as having 'some difficulty' on all five questions, and the remaining 3,316 students were all marked as having no difficulty on all five questions. This response pattern suggests either a problem with the way the data was collected, or the teachers did not know how to respond to the questions.

For item (c) (walking or climbing stairs), eight students had ‘a lot of difficulty’, 18 students had ‘some difficulty’ and 3339 students had ‘no difficulty’.

Language at home

The majority of students spoke Mon-Khmer or a variant at home (53%). Lao-Tai was the next language group, with one-third of students (37%) speaking this at home. Only seven per cent of students spoke Chine-Tibet, followed by three per cent Hmong-Lu Mien.

2.7.3 Case study school sample

This section provides a brief description of the case study respondents. As shown in Table 10, 34 interviews (15 teachers, 12 principals and seven PAs) and 30 classroom observations (G1 Lao language lessons) were completed for the case studies.

Table 10: Case study sample, by province and school

Province	School ID	PA interviews	Principal interviews	Teacher interviews	Classroom observations
Luangnamtha	A		1	1	2
Luangnamtha	B	1	1	2	4
Luangnamtha	C		1	1	2
Luangnamtha	D	1	1	1	2
Khammouane	E		1	1	2
Khammouane	F	1	1	2	4
Khammouane	G		1	1	2
Khammouane	H	1	1	1	2
Sekong	I		1	1	2
Sekong	J	2	1	2	4
Sekong	K		1	1	2
Sekong	L	1	1	1	2
Total		7	12	15	30

Teachers

One school in each province had two G1 teachers, and in three schools (Schools A, H and I) the principal was also the G1 teacher. Years of teaching experience for teachers ranged from eight to 34 years. Only four of the 15 teachers had less than 10 years of teaching experience. Three teachers had no prior experience teaching G1. Four teachers had taught at the same school across their teaching career.

Principals

Case study principals had on average worked for nine years as a principal, with the range from one to 19 years. Three of the 12 principals had been a principal for five years or fewer. Their years of teaching experience ranged from seven to 35 years. Four principals had been at the same school across their career, and three principals were new to their school this year.

Pedagogical advisers

PAs are district level staff tasked with providing pedagogical support to schools. All seven PAs had previously been teachers, with years of classroom teaching experience ranging from two to 10 years.

None of the PAs were new to their positions, with their PA experience ranging from four to 18 years. Four PAs had been working in their positions for at least 12 years.

3 Teaching quality

3.1 Teachers' existing knowledge, attitudes and practices

3.1.1 Introduction

The baseline data collection provided an opportunity to capture details related to existing teaching practices. 'Teaching practice' refers to teachers' application of their professional knowledge, beliefs, and attitudes to provide learning experiences for students. It includes what teachers do to plan, implement and evaluate learning experiences, and ways teachers incorporate principles of teaching and learning (ACER, 2017).

Section 3.1.2 summarises the key findings; and section 3.1.3 explores teachers' confidence in teaching Lao language, their current teaching practices, professional learning practices, and awareness and understanding of particular pedagogies that are emphasised in the new Lao language curriculum.

3.1.2 Key findings

Finding 1. Confidence: Nearly all surveyed teachers indicated confidence regarding their Lao language teaching overall. However, a majority were not aware of the teaching methods canvassed in the survey – mostly new pedagogies reflecting the new curriculum. Many teachers also indicated that they found aspects of Lao language teaching to be difficult or very difficult.

Finding 2. Lesson preparation: Nearly all surveyed teachers reported they undertake lesson preparation for Lao language teaching. Not all teachers were observed to have lesson plans in place during classroom observations.

Finding 3. Teaching and learning activities: Teachers reported using a limited set of pedagogical practices and resources. The predominant teaching and learning activities reported by the case study teachers were: practising pronunciation, reading text written on the board, and students writing. Teachers relied heavily on the use of flashcards and pictures as resources. In the observed lessons, nearly all lessons commenced with whole class activity, and whole class activity was used across large portions of all lessons.

Finding 4. Use of mother tongue: The most common student language group was Mon-Khmer (nearly half), followed by Lao-Tai (one-third). Nearly three-quarters of teachers whose native language was other than Lao indicated that they used a mother tongue language while teaching Lao. Nine of the 15 case study teachers reported using a language other than Lao to teach Lao language.

Finding 5. Assessment: Almost all surveyed teachers reported they undertake some form of student assessment. The main assessment methods reported by case study teachers and principals were students reading and writing through copying or dictation.

Finding 6. Professional development: There is much variation across the regions as to teachers' access to in-service training. About one-quarter of teachers had undertaken in-service training focused on Lao language in the last two years.

3.1.3 Confidence in teaching Lao language

Teachers' confidence is an indication of a teachers' attitude to teaching as well as their level of professional knowledge, including content, pedagogical and pedagogical-content knowledge (ACER, 2017).

Overall confidence in teaching Lao language

Nearly all teachers surveyed indicated that they were either quite confident (36%) or very confident (63%) regarding their Lao language teaching overall. Among those who said they were very confident, there was little difference between those who spoke Lao as their mother tongue (65%) and those for whom Lao was an additional language (60%). A higher proportion of government permanent teachers were very confident (65%) compared with volunteer teachers (56%). Where the majority of students spoke Lao at home, teachers were more likely to be very confident (71%) than where the majority of students did not speak Lao at home (57%).

The case study data indicated lower levels of teacher confidence with two-thirds (10 of 15) of teachers reporting they were very or quite confident in their Lao language teaching. Two teachers attributed their low confidence to their ethnicity:

I feel not confident for my Lao language teaching. I face a lot of problems. I sometimes don't understand the lesson because I am not Lao loun. I try to follow my teaching timetable and complete it. I don't know how to improve myself on teaching methods. (School C)

I am from an ethnic minority group and that makes me feel not confident. (School I)

A principal reported:

I am not confident because the G1 teacher is from an ethnic minority and when he teaches he speaks very quietly and pronounces Lao incorrectly. (School L)

Confidence in using various teaching methods when teaching Lao language

While the majority of teachers surveyed expressed confidence in their teaching, it is interesting to note that a majority were not aware of the teaching methods canvassed in the questionnaire, as shown in Figure 3, with the exception of multi-grade teaching and individual work. Those teachers who were aware of these methods indicated confidence in their delivery. The other teaching methods reflect particular pedagogies of focus in the new curriculum.

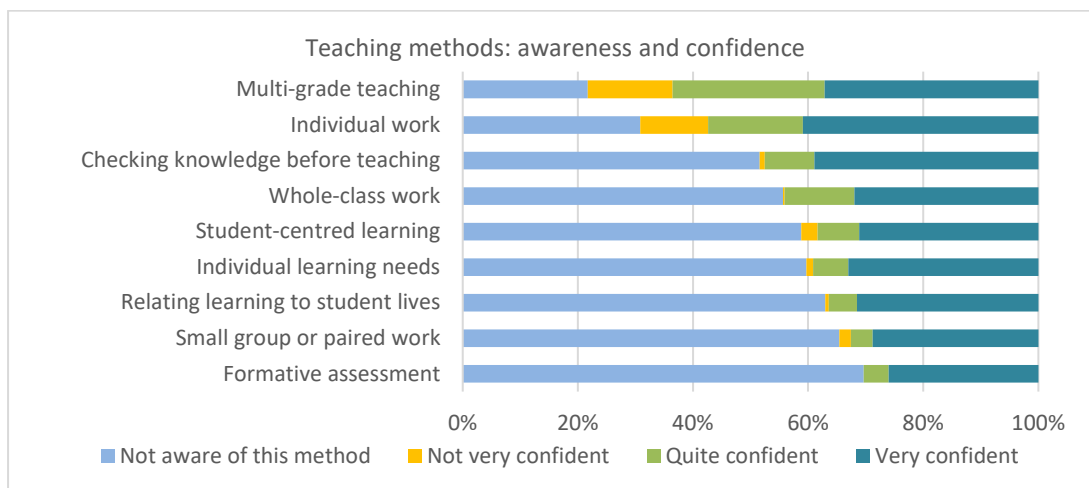


Figure 3: Surveyed teachers' perspectives of their confidence in using various teaching methods when teaching Lao language

Ease of teaching various aspects of Lao language

Teachers were asked in the questionnaire to indicate how easy or difficult they found teaching different aspects of speaking, reading and writing. These aspects were sourced from the new Lao language curriculum outcomes for end of G1. Although teachers expressed confidence, generally half of them indicated that they found aspects of language teaching to be difficult or very difficult, and half to be easy or very easy as shown in Figure 4. Interestingly, teachers who indicated that they were native speakers of Lao were somewhat more likely to indicate that these aspects of teaching were difficult than were non-native speakers. In the same way, teachers of classes of students where Lao was the majority language spoken at home also indicated more difficulty with aspects of language teaching than those whose students did not speak Lao at home. It could be worthwhile exploring possible reasons for this in the midline case study interviews.

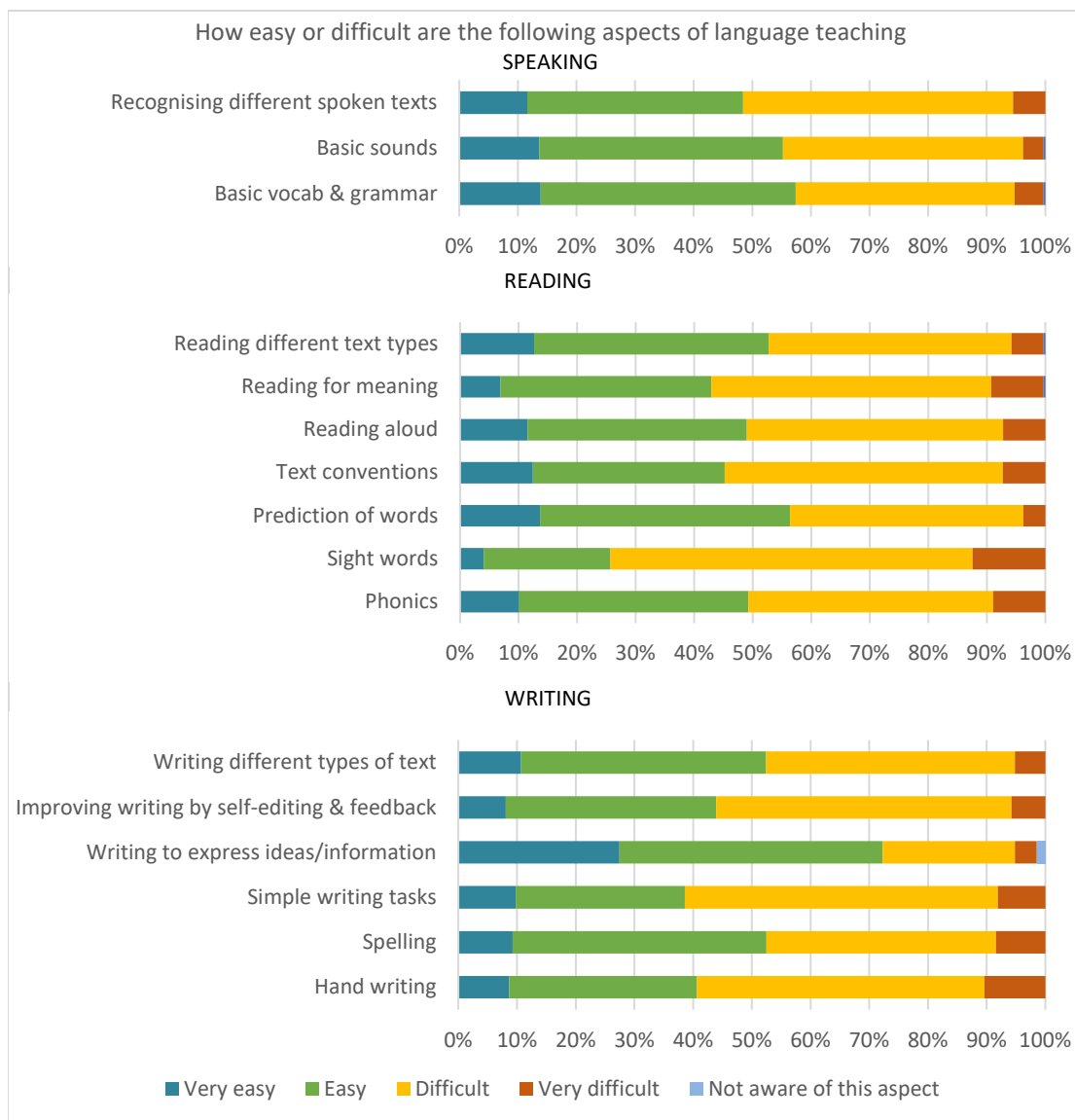


Figure 4: Surveyed teachers' perspectives of ease of teaching aspects of Lao language

3.1.4 Current teaching practice

Aspects of teaching practice that were the focus of the investigation included: lesson preparation; classroom interaction types; teaching and learning activities; gender equality, disability and social inclusion (GEDSI) practices; assessment; use of resources; classroom set-up; and time spent on Lao language teaching. Data was collected through questionnaires and case study interviews and classroom observations. Expectations of the new curriculum associated with these aspects of teaching practice are outlined below.

Lesson preparation

The teachers' guide for the new curriculum contains detailed model lessons. The amount of information given for each lesson is gradually reduced throughout the year, and teachers will be required to make detailed lesson plans following the models. At the time of this baseline study teachers would have been using a different lesson plan template which is also used to assess their performance.

Nearly all teachers surveyed (97%) reported they undertake lesson preparation for Lao language teaching: 42 per cent daily; 27 per cent weekly; 9 per cent monthly; 19 per cent each semester.; and three per cent not at all. Around half (52%) reported they refer to curriculum materials including teachers' guides and textbooks daily, and a third (33%) weekly.

Of the 15 case study teachers, only two teachers responded they do not do lesson planning. However, during classroom observations seven teachers were observed not to have a lesson plan in place. To quote one principal from a northern province school:

Preparing the lesson plan is a key. Teachers have to clearly understand the teachers' guide before making the lesson plan... we can modify or copy from the teachers' guide but not everything. (School A)

For preparation, teachers in the northern provinces relied more on the teachers' guide and/or student text book. In the central provinces teachers utilised the teachers' guide or supplementary documents provided by DESB or PESS:

Before each class I prepare a lesson plan and teaching materials (flash cards of alphabet letters, vowels and pictures). The lesson plan and teaching materials are based on the supplementary document for teaching Lao language, which is designed and provided by Khammoune Province PESS. (Teacher, School G)

Teachers in the south utilised few or no resources in preparing lessons.

Eleven of the 15 case study teachers reported they also prepare materials in advance of lessons, either through collecting local materials, making materials, and/or selecting/making pictures.

Classroom interaction type

An expectation of the new curriculum is that teachers will facilitate a mix of classroom interactions types. For example, teacher-directed whole class activities will prepare students for practice and application activities. Practice and application activities are usually pair, small group or individual activities to support students to work independently with teacher's support.

In the case studies, researchers observed and coded against three classroom interaction types used by teachers in their lessons: whole class activity, pair or group activity, and individual activity.

Almost all lessons (27 of 30) commenced with whole class activity, and whole class activity was used across large portions of all lessons. All teachers used individual activity during at least one lesson. Many teachers included a mix of whole class and individual activity in their lessons, however four teachers used whole class activities through most of their lessons (that is, for more than 30 minutes of the lesson time). Pair or group activities were included in less than one-third of lessons (9 of 30 lessons).

One indicator of student-centred learning related to classroom interactions is the amount of classroom talk that involves students. Traditionally in Lao classrooms, talk is dominated by the teacher with students either remaining quiet or participating occasionally in choral response activities. As part of classroom observations, researchers tried to observe whether there was much classroom talk involving students. However it proved challenging to achieve consistency in observations across researchers, and coding of this element of interaction will need refinement for the midline data collection.

Teaching and learning activities

Prior knowledge and skills

Case study researchers were asked to observe whether teachers made explicit reference to students' prior knowledge and/or skills, either through asking students what they already know or promoting their recall of an earlier activity. The new curriculum encourages teachers to do this as a strategy to introduce new lesson content in a clear and meaningful way. Nine of 15 teachers were observed to do this in both lessons, four during one lesson only, and two teachers not at all. The majority of references to students' prior knowledge and/or skills were made in the first five minutes (18 instances) or 10 minutes (11 instances) of the lesson. There were only four instances observed beyond 10 minutes.

Activity types

Case study researchers were able to both ask about and observe the types of teaching and learning activities that teachers currently use in Lao language lessons.

As shown in Figure 5, the predominant teaching and learning activities reported by the case study teachers were: practising pronunciation, reading text written on the board (including teacher modelling, whole class choral, and individual students), and students writing (including copying from the board and responding to teacher dictation). Nearly all teachers (14) used at least one of these activities in the lessons observed. During these activities teachers often made use of flashcards (reported by teachers or principals (rep) = 14, observed in a lesson (obs = 9), pictures (rep=14, obs=10) and the blackboard (rep=7, obs=15) (see Use of Resources, Table 14).

Teaching and Learning Activity	A#	B1	B2	C	D	E	F1	F2	G	H#	I#	J1	J2	K	L
Practising pronunciation (speaking, listening)	●	X	X			●○	○	○	○	○			●○		○
Reading text (teacher-led or individual student at board)	○	X	X		●○	●○X	●○	○	○	●○	●○	○	●○	○X	○
Writing (copying, dictation)	○●	○X	X	○	●○	●○	●○		● ○ X	●○	●○	●○	●○	○X	○

Alphabet = Case Study Teacher, # = G1 teacher is principal, ● = teacher reported, ○ = observed in at least one lesson, X = principal reported

Figure 5: Teaching and learning activities reported by case study respondents and observed in Lao language lessons

Other activities that were reported and observed to be used less frequently included: games (rep=5, obs=2), songs (rep=2, obs=4), puzzles (rep=1, obs=1) and physical activity (obs=1).

As described by the following teachers in response to a question asking about the types of teaching activities often used:

Mostly drawing, showing pictures, using flash card holders, combining vowels with consonants. (Teacher, School B)

The most frequent teaching activities... are playing games and writing competition. The games are about finding an alphabet, a vowel, a word or a phrase that teachers says from flash cards. The writing competition involves the teacher asking at least two students to come to the blackboard to write down the words or phrases that the teacher says. The student finishing first is the winner. (Teacher, School G)

If the lesson is focused on listening, then I tell stories or do reading for students. If the lesson is focused on writing, I ask students to write either on the blackboard or on their notebook. But very often I write the lesson on the blackboard and then ask students to come to read or read after me. (Teacher/principal, School H)

Localisation

The new curriculum encourages teachers to adapt content to students' cultural heritage, local context and environment. As noted by one teacher:

I refer to local context like animals, cow, buffalo or something that students can imagine from their daily life. (Teacher, School F)

During the observed lessons, most teachers made some explicit reference to these (11 of 15 teachers). One teacher did this in both observed lessons, 10 teachers did this in one observed lesson, and four teachers did not do this at all. Another way teachers localise the curriculum is to make use of real objects from the community. This was reported and observed only in northern case study schools (rep=5, obs=2).

A 'typical lesson'

A task that the lead researchers completed during the data analysis workshop involved them recalling their overall impressions of a 'typical lesson' in their case study schools. The typical lessons documented by all three researchers (Figure 6) had very similar overall structures, lesson components and activities. This signals there is some level of consistency, and what might be considered a limited set of pedagogical practices, across the three regions.

North (Schools A-D)	Central (Schools E-H)	South (Schools I-L)
Greeting (1)	Greeting (2)	
Teacher asks about date/month/year(3)	Teacher asks about the date and day (5)	
Teacher reviews previous lesson (5)	Teacher reviews previous lesson, asks what students learnt (15)	Review the previous lesson with students (<10 minutes)
Teacher writes new lesson on the board (7)	Teacher explains what the class will be doing (10)	Teacher writes lesson on the board (10)
Teacher reads writing on the board 2-3 times (5)	Teacher writes lesson on the board (5)	Teacher reads aloud the writing on the board for students a few times (5)
Teacher reads writing on the board and students read after (7)	Teacher guides students to read the text on the board a few times (10)	Teacher and students read together (5-10)
Teacher asks individual students to demonstrate reading (10)	Teacher asks individual students/volunteers to read at the board (5)	Teacher asks/assigns students to read one by one at the board (30+)
Students copy what the teacher wrote on the board (15)	Whole class reads together loudly (10)	Teacher asks students to copy the writing in their notebooks (30+)
Teacher checks students' writing (3)	Students go to the board to read one by one (10)	Teacher asks students to write some words on the board (10-20)
Dictation (10)	Teacher reads for students again (5)	
Teacher asks students to demonstrate (15)	Students copy the lesson (15)	

Numbers in parentheses indicate time in minutes spent on each lesson activity and the use of the same colours and shades indicate similar activity across locations

Figure 6: A 'typical lesson' as recalled by lead case study researchers

Gender equality, disability and social inclusion (GEDSI)

Promoting GEDSI is a key objective of the BEQUAL program. Also, an expectation of the new curriculum is that teachers will address students' individual learning needs by adapting their teaching and lessons.

Gender equality

Case study researchers recorded when teachers selected a girl or a boy to demonstrate an idea or skill during classroom observations, for example by being called up to the board. Girls and boys were often selected to demonstrate (14 of 15 teachers did this six or more times across the two lessons). The distribution between girls and boys was mostly even.

Students with particular needs

Surveyed teachers were asked to what extent they were able to provide extra support to students who have difficulty learning Lao language and to students who need to have extension in Lao. As shown in Figure 7, very few teachers (8%) reported constraints in providing either supports.

Ninety-one per cent of teachers reported they were able to provide support in both instances, either to a moderate or large extent.

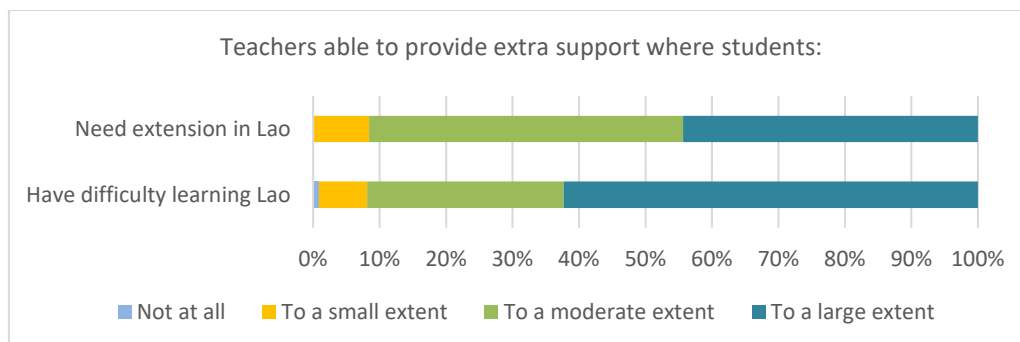


Figure 7: Surveyed teachers' reported ability to provide extra support to students

The case study data provides detail on how teachers work with such students when teaching Lao language. Researchers provided principals and teachers with examples: students with physical disabilities; students with intellectual/cognitive disabilities; and students who excel and need extension activities. Principals' and teachers' open responses were coded using an inductive approach.

As seen in Figure 8, common strategies for supporting students needing assistance (often reported as "slow learners") were: providing targeted help in class (rep=11) and grouping them with high achieving students (or "outstanding students") (rep=6). Extra instruction (rep=4) and extra time for completing tasks (rep=4) were also cited. To quote one teacher:

I focus on students who have difficulties learning. For example there are seven students who cannot read, write and they learn slowly. I have to be close to them and let them practice writing and reading. I also teach them after school during break time, three hours per week. (Teacher, School L)

One teacher reported he needs more help to support struggling students:

I do not work with students with particular needs. Some of the students are shy and when I invite them to read and write at the blackboard they don't want to come so I just let them at their table and don't do anything about it. I don't know what to do to solve the issue with these students. (Teacher, School I)

In three schools, it was reported that outstanding students were given extra instruction or work to complete (rep=5). Getting such students to help others was also a common strategy used to extend them (rep=7).

Type of Support	Activity Observed	A#	B1	B2	C	D	E	F1	F2	G	H#	I#	J1	J2	K	L
No support	No response or unsure	•					X									
	Do nothing					•						•				
Support for students needing assistance	Targeted help in class		•X	•X						X			•	•	•X	•X
	Position at front of class						X									
	Provide resources												X	X		
	Extra instruction		•											•	•	•
	Extra time for tasks			•	•	X	•									
	Group with high achieving students		X	X				•	•	•					X	
	Ask parents to help														•	
Extension for high achieving students	Extra instruction or work		•X	•X	•											
	Help others						•X	•X	X	•	•					
	Given gifts		X	X	X	X										

Alphabet = Case Study Teacher, # = G1 teacher is principal, • = teacher reported, o = observed in at least one lesson, X = principal reported

Figure 8: Case study respondents' reporting on strategies for working with students with particular needs

During classroom observations, researchers recorded when teachers explicitly provided customised support to students with physical or intellectual disabilities. Two teachers provided such customised support.

Non-Lao speaking students

Surveyed teachers were asked to indicate which languages the majority of their students spoke at home. The most common student language group was Mon-Khmer, with about half of all teachers (49%) indicating that the majority of their students spoke Mon-Khmer or a variant at home. More than one third of teachers (38%) indicated that Lao-Tai was the majority language group in their classrooms. Other language groups were less common with eight per cent of teachers reporting that Chine-Tibet languages were spoken by a majority of their students, and other language groups such as Hmong-Lu Mien only in a majority in less than three per cent of classes.

As noted in section 2.7.1, most native speakers of Lao-Tai do not speak another language, whereas the majority of those who are not native Lao speakers reported that they spoke at least one other language. Table 11 provides a picture of the student majority language compared to the language of the teacher who teaches them. In the case of teachers whose native language is Lao, 57 per cent

are teaching students where the majority also speak Lao, however just over one third of native Lao language teachers (36%) are teaching classes whose majority language is Mon Khmer.

In comparison, only 11 per cent of teachers whose native language is not Lao are teaching a class of students who are majority Lao speakers. These figures are likely to affect the extent to which a mother tongue is spoken during Lao language lessons.

Table 11: Student majority language compared to language of their teacher as reported by teachers surveyed

	Native Speaker	Fluent Speaker	Total
Languages Spoken	%	%	%
Lao Tai	57.3	10.8	37.5
Mon Khmer	35.7	67.6	49.3
Other	7.0	21.6	13.3
Total	100.0	100.0	100.0

Extent of mother tongue instruction

Data on mother tongue instruction was collected from questionnaires and interviews. Questionnaire data on the extent to which mother tongue is used in Lao language lessons may need to be treated with some caution as there is potential for confusion given that ‘mother tongue’ could refer to Lao language itself, whereas the intent of the question assumes that respondents will understand that ‘mother tongue’ is not intended to include Lao language speakers.

Overall, just under half of surveyed teachers reported that they used a mother tongue language during Lao language lessons (48%) and just over half reported that they did not (52%). The figures differ considerably when the native languages of teachers and students are taken into account. Nearly one third of teachers whose native language is Lao (30%) reported that they used a mother tongue language when teaching Lao. Given that only 17 per cent of native Lao speakers indicated that they spoke another language fluently, this result may indicate some confusion about the intention of the question. The result is reversed for teachers whose native language was other than Lao, with 72 per cent indicating that they used a mother tongue language while teaching Lao.

The vast majority of teachers (84%) did not use a mother tongue when teaching a class of students whose majority language was Lao. For classes where most students had a mother tongue other than Lao, two thirds of teachers (67%) used a mother tongue, while one third (33%) reported that they did not.

Table 12: Surveyed teachers’ reported use of mother tongue during Lao language lessons (caution)

Use mother tongue language during Lao lessons	% of		Total %	% of Lao-Tai Majority Students	% of Other Language Groups	Total %
	% of Native Lao-Tai speaking Teacher	Fluent Lao-Tai speaking Teacher				
No	70.4	27.7	52.2	83.8	33.2	52.2
Yes	29.6	72.3	47.8	16.2	66.8	47.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Teachers who used students’ mother tongue while teaching Lao were asked the purpose of their use in the questionnaire. Figure 9 shows the most common use of mother tongue is to provide instructions, which over half of these teachers (52%) do often or always. About 85 per cent of

teachers use mother tongue for all indicated purposes at least occasionally, and about 40 per cent often or always.

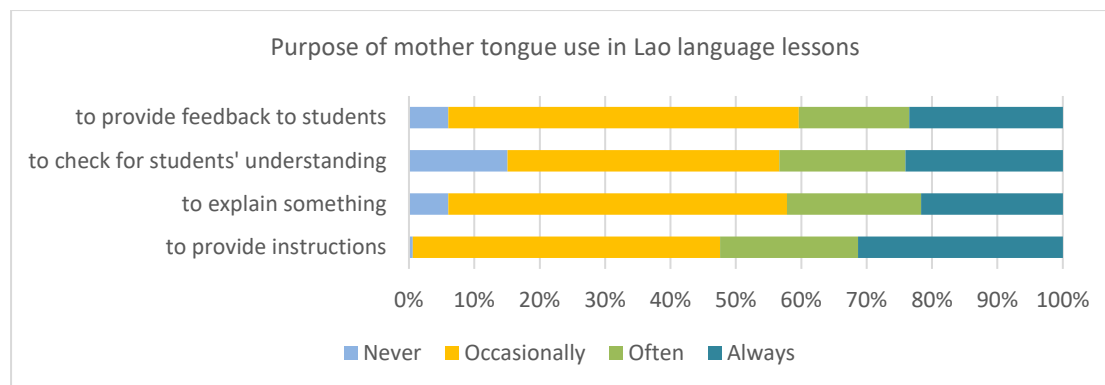


Figure 9: Surveyed teachers' reported purpose of mother tongue use in Lao language lessons

Given the need to treat with caution the survey data on the extent of mother tongue use in classes, the case study data may provide more insights. As seen in Table 13, nine of the case study teachers reported using a language other than Lao to teach Lao language. Thirteen of the 15 classes include ethnic students.

Table 13: Case study respondents' reporting on whether a language other than Lao is used for Lao language lessons and the presence of ethnic students in G1 class

Reports of Use of Other Language	A#	B1	B2	C	D	E	F1	F2	G	H#	I#	J1	J2	K	L
Teacher reported	N	Y	Y	Y	N	N	Y	Y	N	Y	Y	N	N	Y	Y
Principal reported		Y	Y	Y	N	N	Y	Y	N			Y	Y	Y	Y
Ethnic students	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Alphabet = Case Study Teacher, # = G1 teacher is principal

A teacher reported her rationale for using a local language:

I use local language to clarify some specific words and to make all students understand what that means in their local language... DESB and PA told me to use the local language to teach ethnic students to make them understand better. (School B)

To quote three teachers who do not use another language (one from a school in each region):

No, I only use Lao language because there are no ethnic students in my class... in the past, we had Khmu students. We used both Lao and Khmu. If we spoke Lao, ethnic children did not understand. (School A)

In the classroom, I speak only Lao. I can't speak local language. (School E)

No, I only use Lao because I am Lao Tai and from Champasak province. (School J)

Case study researchers also observed that nine teachers provided customised support to non-Lao speakers during lessons. In two cases this entailed non-ethnic teachers assisting ethnic students with Lao pronunciation (Schools E and G). One teacher provided customised support through the

majority of both observed lessons. His principal noted this G1 teacher speaks in ethnic language (Krieng) for “80 per cent of his class... because students do not speak Lao” (School L).

Extra instruction in Lao language for G1 students

The questionnaires asked whether extra instruction in Lao language is provided to G1 students whose home language is not Lao. Forty-four per cent of principals reported their school does provide extra instruction in Lao language at no cost for such students, and 55 per cent reported no extra instruction is provided. Teachers had a slightly different response with 39 per cent reporting extra instruction is provided at no cost, and 59 per cent saying none is provided. A small percentage of principals and teachers (1-2%) reported extra instruction is partially or fully funded by parents.

Case study respondents were also asked a similar question. Nine of 15 teachers reported extra instruction was provided, but reporting differed between principals and teachers in a couple of instances. Additional instruction was usually reported as being provided weekly outside of normal school hours, or during school breaks.

Assessment

The new curriculum places an emphasis on formative assessment and new methods for summative assessment to shift teachers away from traditional assessment approaches and testing. Traditional approaches have included numerical scoring of students (e.g. a score out of 10) for each subject on a weekly basis, whereas the new curriculum encourages the use of rubrics. Two key strategies described in the teachers’ guide for formative assessment are asking questions to check understanding and observing children when they are practicing or trying to apply what they have learnt.

Purpose of assessment

Teachers and principals were asked in the questionnaires to select the purposes for which they or their school use assessment data, from four options. Teachers indicated they mostly use data to monitor student performance and progress (85%), followed by planning next steps for learning and student ranking (each 78%), and lastly to report student achievement (73%). Principals also reported monitoring performance and progress as the main purpose (89%), followed by planning (80%), reporting (77%) and then ranking (72%).

Assessment methods and frequency

The teacher questionnaire asked how often teachers assess students during Lao language lessons, including, for example, formative assessment by observing students working on tasks and asking students to demonstrate skills. Almost all surveyed teachers reported they undertake some form of formative assessment (99.7%). Three-quarters conduct formative assessments daily (76%), and one-fifth weekly (20%). Interestingly, as indicated in Figure 3 above, a high proportion of teachers surveyed (70%) said that they were unaware of formative assessment as a teaching method. This should be treated with caution as perhaps teachers understood the examples, but were not aware of the label ‘formative assessment’. Nearly all those who were aware considered themselves very confident with the approach.

Case study data provides details on the main assessment methods reported and observed in use. The main assessment methods reported by teachers and principals were students reading (rep=14) and writing through copying (rep=9) or dictation (rep=11), as outlined by this teacher:

We test students. For example, we finish reading, we ask them to do a dictation. The teacher deletes what is written on the black board and then reads for students to write. We check their writing and we give them a mark. Later we let students write by themselves, ask them to bring their work to the teacher for checking. (Teacher, School A)

Five teachers reported observing students as they work. Principals, more often than teachers, reported the use of tests and exams as an assessment method.

Case study researchers recorded examples of formative assessment during classroom observations. Firstly, researchers documented when teachers ‘explicitly checked’ for students’ understanding. For example, if teachers prompted or encouraged students to demonstrate or articulate their understandings. Four of the 15 teachers explicitly checked for students’ understanding in both lessons, and there were multiple instances of this across the lessons (either 7 or 10 instances across two lessons – see Figure 10 which displays a classroom observation map from two such teachers). Eight teachers checked in one lesson only. In the southern schools, three teachers did not do this at all, and the other two teachers in the south only checked once during one lesson.

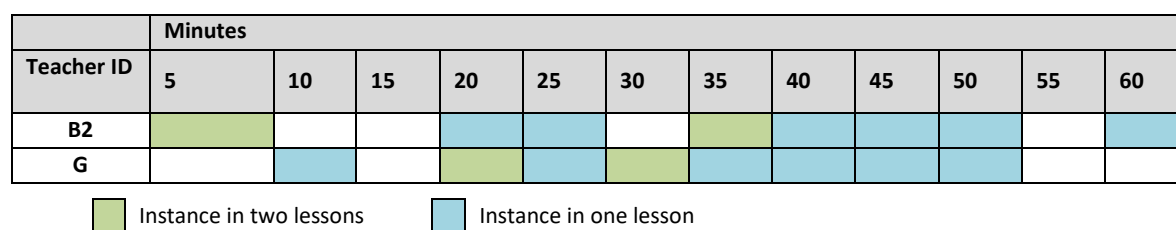


Figure 10: Examples of classroom observation maps from two teachers with the highest number of instances of explicitly checking for student understanding

Secondly, researchers documented when teachers observed students practising or applying what they had learnt. For example, if teachers moved from group to group and provided feedback, prompted or encouraged students, or recorded notes about students as they worked. Seven of the 15 teachers undertook such observations in both lessons, and five in one lesson only. See Figure 11 which displays an example classroom observation map of a teacher undertaking these observations often. Three teachers (all in southern schools) did not do this at all. Teachers in northern schools undertook observations more often than in central and southern schools.

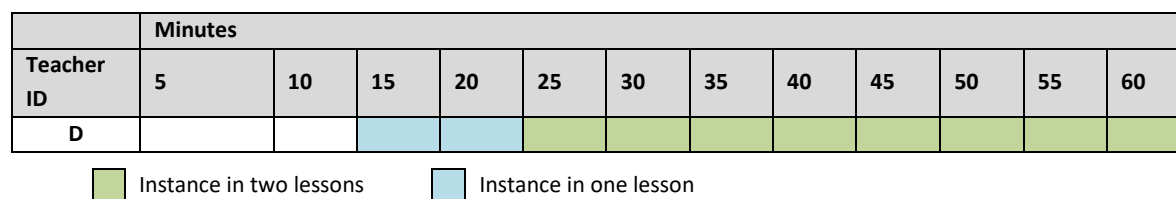


Figure 11: Examples of classroom observation maps from one teacher with the highest number of instances of observing students practising/applying what they have learnt

Providing feedback on student progress

Teachers surveyed were asked how often they talk to individual students about their learning progress on Lao language. Eleven per cent of teachers reported they do not do this, whereas 69 per cent talk to students either daily or weekly, and 18 per cent monthly.

Nearly half (44%) of teachers surveyed reported they have a conversation of five or more minutes with parents of their students about their Lao language learning on a monthly basis. Whereas 14

per cent reported this occurs each year or never, 21 per cent each semester, 17 per cent each week, and less than five per cent on a daily basis.

In case study schools, the majority of respondents (14 of 15 teachers; 7 of 9 principals) said they have conversations with parents about their child's Lao language learning. In most cases, these conversations with parents are focussed on student attendance. One teacher reported:

I talk to parents every week because I want to make sure all parents know about their children's advancement in learning. Mostly I discuss with parents about the students' performance. I ask all parents to encourage children to go to school and help them learn or do the homework.
(Teacher, School B)

Use of resources

As part of the new Lao language curriculum rollout, additional teaching and learning resources will be provided. It is anticipated that each teacher will have a teachers' guide and student textbook, and each student will be allocated a textbook. Other language resources will include storybooks, readers, alphabet cards, display charts, word and picture cards, spare paper, slate and chalk. Surveyed teachers were asked to select from a range of resources those that they and their G1 students currently use in Lao language classes. Flashcards, pictures or posters were chosen most frequently by 87 per cent of teachers, followed by books and curriculum materials (82% and 80% respectively). Games/puzzles and songs/drama or physical actions were selected by more than half of the teachers as a resource they use.

Table 14: Surveyed teachers' perspectives on the Lao language resources they and their G1 students use

Lao Language Resources Used	% of Teachers
Flash cards, pictures or posters	86.5
Books (e.g. decodable readers, story books, non-fiction books)	81.6
Curriculum materials (e.g. teacher guide, textbooks)	80.1
Games or puzzles	55.3
Songs, drama or physical actions	51.6
Children's shows (TV, video, DVD)	3.5

The questionnaire results differ somewhat from what was reported and observed at case study schools, noting that researchers were asked to observe against a wider range of resources than the list that was included in the questionnaire. Flashcards and pictures were highlighted as much used resources during interviews (rep=14) and this was observed to be the case (flashcards obs=9, pictures obs=10). Notably only one class was observed using decodable readers, and none using story books; since BEQUAL resources had not been provided to schools at the time of the baseline any additional resources would have been provided by other sources. Teachers relied heavily on use of the blackboard and a pointer/stick in observed classes. Student textbooks were used in 10 observed classes, but in three classes (all in the south) there was only one textbook and this was used by the teacher to guide lessons. It is anticipated that these textbooks would have been stock of the previous G1 materials now diminished.

Material Used in Classroom Observation	A#	B1	B2	C	D	E	F1	F2	G	H#	I#	J1	J2	K	L
LL teacher guide	●○	●	●○	●X	X		○	○	○			○	●○		
LL lesson plan	●	●○	●○	●X	●	●	●○X	○X	●○X			●○X	●○X	●○X	●X
Student text books	●○	●○	●○	○	○						●○	●○	●○	○	○
Student note books	○	○	○	○	○		○	○	○	●○	○	○	○	○	○
Decodable readers					X							○			
Story books															
Posters		○													○
Flashcards	●	●○	●○	○X	●X	●	○X	●○X	●X	●○		●○	○		○
Pictures	●○	●○		●○X	●	●	X	○X	●○	○		●○	●○	●○X	●○
Big blackboard	○	○	○	○	○	○X	●○	○	○X	●○	●○	○	○	○X	●○
Pointer/stick	○	○	○	○	○	○	○	○	○		○	○	○	○	○
Games			●		●				●X			○	○		●
Puzzles		○													●
Songs	○		●					○●			○	○			
Drama or role play															
Physical actions								○							
Children's shows															
Other	●○	●○	●	●	●	○X	●○	●	●	○●					

Alphabet = Case Study Teacher, # = G1 teacher is principal, ● = teacher reported, ○ = observed in at least one lesson, X = principal reported

Figure 12: Resources used in Lao language lessons as reported by case study respondents and observed (excerpt)

Classroom setup

Case study researchers were asked to observe how classrooms were setup for Lao language classes (refer to photos as examples). Just over half of the classrooms (8 of 15) had space for whole-class activities. Five classrooms had grouped tables and chairs for students, whereas the remaining 10 classrooms had individual/single lined tables and chairs. Only two classrooms had a dedicated reading area. Most classrooms had some Lao language displays.



Time spent teaching Lao language

The new curriculum recommends 10 hours a week of Lao language in the G1 program, equivalent to two hours per day. In a pilot of 80 schools where most students do not speak Lao at home, it is also recommended that an extra one hour per day of spoken Lao language should be added to the timetable.

On average, teachers across all provinces indicated in the survey that they taught Lao language for about 10 hours per week. About 11 per cent reported teaching Lao language for eight hours or fewer per week, and 42 per cent for 12 hours or more per week. Case study respondents also reported an average teaching time of 10 hours per week, but the range reported differed (teachers reported 6-17 hours per week; principals 6-12 hours per week).

3.1.5 Professional development

Professional development refers to the range of activities and programs that teachers and principals participate in for their professional learning. Examples include in-service training, cohort or network professional development, and school-based professional development (ACER, 2017).

Participation in training

Just under half of the G1 teachers surveyed (47%) said that they had participated in in-service training during the last two years. This number varied by province, with only 17 per cent of teachers in the southern province of Sekong indicating that they had participated in training, compared with over 50 per cent of teachers in some northern and central provinces, namely Luangnamtha (52%), Khammouane (59%) and Savannakhet (56%).

About one quarter of teachers (28%) had undertaken in-service training focussed on Lao language teaching in the last two years, although again the proportion differed by province again, from eight per cent of teachers in the southern province of Sekong, 16 per cent in the northern Phongsali and 18 per cent in southern Saravane to 45 per cent in the central province of Khammouane. Of those who had undertaken this training, about one third (32%) had attended two days and another third (29%) attended three days. Most others (32%) had attended four days or more.

Table 15: Surveyed teachers' reporting on their participation in training and the focus of that training, by province

Teachers' participation	Khammouane %	Luangnamtha %	Phongsali %	Saravane %	Savannakhet %	Sekong %	Total %
Participated in in-service training during the last 2 years	59.3	51.5	31.8	40.0	55.7	16.7	47.3
Focus on Lao Language teaching	45.2	27.3	15.6	17.5	31.7	8.3	27.7
Focus on Student-centred learning	25.8	18.2	13.3	15.8	25.4	12.5	20.7
Focus on Inclusive education	29.0	24.2	13.3	14.0	27.8	4.2	21.9
Focus on Multigrade classrooms	22.6	27.3	20.0	22.8	34.1	8.3	25.9

More than half of principals surveyed (58%) said that they had participated in in-service training during the last two years. There was less variation by province, when compared to teachers' participation, but again, the southern province of Sekong had the lowest rate of reported participation (40%).

One fifth of principals (20%) had undertaken in-service training focussed on Lao language teaching in the last two years, and one-third (33%) on curriculum, although again the proportion differed by

province. A focus on school management and administration was the focus of most training programs (47%).

Table 16: Surveyed principals' reporting on their participation in training and the focus of that training, by province

Principals' Participation	Khamm-ouane %	Luang-namtha %	Phongsali %	Saravane %	Savann-akhet %	Sekong %	Total %
Participated in in-service training during last 2 years	46.3	67.6	45.7	54.4	69.3	40.0	58.1
Focus on school leadership	21.7	11.8	12.8	23.0	29.5	8.0	21.8
Focus on school management and administration	36.7	47.1	33.3	47.5	58.1	40.0	47.4
Focus on staff professional development	16.7	5.9	7.7	6.6	11.6	8.0	10.3
Focus on student welfare	6.7	--	2.6	3.3	3.9	--	3.4
Focus on curriculum	31.7	29.4	20.5	37.7	43.4	4.0	33.6
Focus on Lao language teaching	20.0	35.3	7.7	16.4	23.3	4.0	19.5
Focus on student-centred learning	26.7	14.7	10.3	21.3	24.0	4.0	20.1
Focus on inclusive education	20.0	11.8	20.5	16.4	37.2	--	23.6
Focus on multigrade classrooms	26.7	26.5	23.1	29.5	41.1	--	30.2

Principals were asked in the questionnaire to report whether their G1 teachers received Lao language training from certain providers. MoES was the main provider (45%), followed by UNICEF (24%), BEQUAL (18%), Room to Read (6%) and Catholic Relief Services (5%), USAID (4%) and the Global Partnership for Education (3%).

In case study schools, eight of the 15 teachers reported they had received in-service training on Lao language teaching, noting that all eight teachers were in northern and central schools. None of the teachers in the southern schools had received Lao language training. As shown in Figure 13, the focus of this training was predominantly on resources (rep=8) and pedagogy (rep=6), and the Lao language skills of listening and speaking (rep=8), writing (rep=8) and reading (rep=6).

Teachers' Participation in Training Program	A#	B1	B2	C	D	E	F1	F2	G	H#	I#	J1	J2	K	L
No training					•		•				•	•	•	•	•
Curriculum			•						•						
Writing Component	•	•	•	•		•		•	•	•					
Listening & Speaking Component	•	•	•	•		•		•	•	•					
Reading Component			•	•		•		•	•	•					
Pedagogy	•	•	•	•		•			•						
Resources	•	•	•	•		•		•	•	•					
Assessing						•		•		•					
Teaching non-Lao students									•	•					
Multigrade															
Other								•	•						
Lesson planning Component								•	•						

Alphabet = Case Study Teacher, # = G1 teacher is principal, • = teacher reported

Figure 13: Participation in Lao language training and foci as reported by case study teachers

Five of the nine case study principals (who are not also G1 teachers) reported they had received Lao language in-service training. However, again, none of the principals in southern schools had received such training.

Participation in other forms of professional development

The face-to-face orientation sessions about the new curriculum will also cover associated support resources, such as participation in communities of practice (COPs) and use of self-access learning (SAL) tools. In BEQUAL targeted districts, ESGs to DESBs will be specifically used to facilitate additional in-service support of these kinds for teachers and principals.

Teachers were asked in the questionnaire whether during the past school year (2018-19) they participated in learning with groups or clusters of teachers, or self-learning. Examples were provided of each as the concepts of COPs and SAL may not have been known to teachers prior to the new curriculum training. Examples of COPs provided were: discussion/workshop with teacher colleagues, peer to peer support, and online teaching support group like WhatsApp. Examples of SAL provided were: reading about teaching in books or online, watching videos about teaching, reflecting on teaching. As Table 19 shows, half of teachers reported they had participated in learning groups/clusters (54%) more than twice last school year, and one-fifth (19%) did not participate at all. The majority (74%) had participated in self-learning (74%) more than twice in the last school year, and 12 per cent not at all.

Table 17: Surveyed teachers' reporting on their participation in learning with groups/clusters and self-learning

Frequency of Participation in Professional Development	Participated in learning with groups/clusters of teachers %	Participated in self learning %
No participation	18.8	11.6
Once	8.7	4.1
Twice	18.8	10.4
More than twice	53.6	73.9
Total	100.0	100.0

3.1.6 Awareness of new curriculum

The baseline data collection provided an opportunity to capture details related to teachers' and principals' awareness of the new curriculum and the particular pedagogies emphasised in the new curriculum. This data was collected through questionnaires and case study interviews.

Awareness of new curriculum rollout

Case study respondents were asked whether they were aware that a new primary curriculum would soon be provided. Eight of the 15 teachers and seven of the 12 principals reported they were aware the new curriculum was coming. In four schools, teachers and principals reported differences in awareness indicating information about the new curriculum was not shared amongst staff in these schools.

Awareness of pedagogies promoted in the new curriculum

Student-centred teaching and learning is a key feature of the new curriculum. As indicated in Figure above, 59 per cent of teachers said that they were not aware of the student-centred learning approach. Nearly all those who were aware of student-centred learning, however, considered themselves very confident with the approach. The questionnaire data differs from the case study data where nearly all of the teacher and principal respondents reported awareness of student-centred teaching methods (two teachers were not aware). As noted by one teacher/principal:

In my opinion, the student-centred teaching methods and the conventional teaching methods are so different. It's better to see the students having fun during the lesson.... Our school started to apply the student-centred teaching methods a long time ago. It became a model school of the District. (Teacher/principal, School A)

However, as Figure 14 shows, case study respondents described their understanding of student-centred teaching methods in a variety of ways. These open responses were coded using an inductive approach.

Methods cited most frequently were involving students in group work (rep=12) and teachers observing students and providing follow up as required (rep=11). As noted by one teacher:

When I teach I let students think by themselves. For example, I made a question for group work, students discuss the answer together and then a volunteer report the answer on behalf of the group and teacher let them know if this is right or wrong. (Teacher, School K)

Respondents in northern schools had a more nuanced understanding of student-centred teaching methods, describing the importance of teachers playing a facilitative role and encouraging students to learn by doing. To quote one teacher:

The students will be allowed to discover answers by themselves. They can make a group discussion or they can find their own ways of learning. The teacher only provides support when they need. (Teacher, School B)

Other descriptions included the importance of the teacher asking lots of questions, student talk and participation in activities.

Teaching Activities Observed	A#	B1	B2	C	D	E	F1	F2	G	H#	I#	J1	J2	K	L
Not aware											•	•			
Group work	•		•		X	X	•X	•X	X			X	X	•	
Fast learners help slow learners	•				X				X						
Many activities										•			•	X	•
Encourage students to discover and learn / learn by doing	•	X	•X	•X				•							
Play facilitating role to support students learning	•	X	•X	•X											
Asks lots of questions						•X		•							
Allow students to participate / talk more		X	X			X		•							
Observe and provide advice / follow up when necessary / checks work			•				•X	X	•X	•				•X	•X
Understand local context and behaviour of students to adapt teaching				•											

Alphabet = Case Study Teacher, # = G1 teacher is principal, • = teacher reported, o = observed in at least one lesson, X = principal reported

Figure 14: Case study respondents' descriptions of student-centred teaching methods (excerpt)

Formative assessment is also promoted in the new curriculum. Awareness of formative assessment is reported in section 3.1.2.

Perceived need for a new curriculum

Teachers and principals were not asked in the questionnaire or during case study interviews, whether they saw the need for a new curriculum. However, they were asked whether they had enough time to teach all the required content in the Lao language curriculum.

As shown in Figure 15, about one fifth of teachers surveyed (22%) said that they did not have enough time to teach the Lao language curriculum in a typical week, and a further 32 per cent indicated that they only had enough time sometimes.

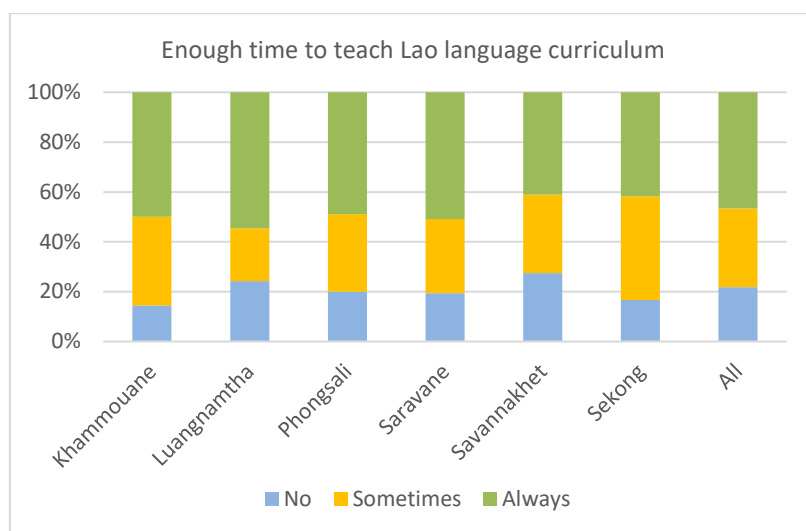


Figure 15: Surveyed teachers' perception of whether they have enough time to teach the Lao language curriculum each week, by province

Eight of 15 case study teacher respondents indicated they can teach the required content each week, but some of these comments were caveated. These comments provide insights on a perceived need for a new curriculum, and perhaps readiness for such change. Challenges reported included mixed student ability, ethnicity, multigrade classes and the number of Lao holidays, which has implications for their ability to complete the curriculum:

But there are too many lessons. Some students don't understand. Some are fast and some are slow learners... they come from low educated families. (Teacher, School B)

In general, the teacher can complete the lessons but only in terms of quantity not quality, especially for a large class with ethnic students who do not speak Lao at home. It's difficult for them. (Teacher/principal, School A)

I cannot teach all the required content in 12 hours per week because there are many units and I cannot finish all units on time. For example, there are more than 90 units but now I finished unit 70. Actually according to plan I should have already finished teaching all units by May. (Teacher, School J)

Some lessons take longer for the teacher to finish because she teaches multigrades. She has to switch back and forth... it is a lot of work to do. She can't follow her lesson plan. Many times, instruction does not go as expected. (Principal, School G)

Some respondents noted the need to cut some units:

I think there are too many units in the Lao language curriculum. We should cut some units.
(Principal, School K)

3.2 Factors that support or impede existing teaching practice

3.2.1 Introduction

The baseline data collection provided an opportunity to understand and capture factors that support or impede teachers' existing practice. This data was collected through questionnaires and case study interviews. During the case study data analysis workshop, lead researchers used an inductive approach to identify sub-themes related to supports for Lao language teaching and challenges for Lao language teaching. These were then grouped by ACER researchers into 'like' sub-themes and further analysis was undertaken of the data. These sub-themes form the structure for the following sections of this report.

3.2.2 Key findings

Finding 1. Technical supports – school level: Just over three quarters of surveyed teachers reported that their principal observed their teaching and provided them with feedback or advice at least once during this school year. Supports included assistance with preparing materials, lesson planning, pronunciation and teaching methods. Observation by teacher colleagues was less common, however more than half of surveyed teachers reported they work regularly with other teachers on Lao language teaching.

Finding 2. Technical supports – district/provincial level: Nearly 30 per cent of surveyed teachers had received more than two visits from their PA during the school year (25% no visit). There were regional variations in case study schools as to the frequency of visits. Generally visits were focused on lesson planning, materials preparation, and teaching methods. A limited budget for monitoring and travel was cited as a common issue.

Finding 3. Resource materials: A lack of materials was often reported as a key constraint to Lao language teaching. Access to Lao language resources (e.g. textbooks, readers, and storybooks) was prioritised by teachers and principals as important supports for improving Lao language teaching.

Finding 4. Teacher and school characteristics: Principals ranked shortage/inadequacy of instructional materials as significant issues in their school, followed by shortage/inadequacy of toilets and classrooms, a lack of qualified teachers, teacher absenteeism, and lastly teacher turnover. Case study schools reported similar challenges with a lack of teaching materials and resources reported in all schools, followed by limited teacher knowledge and experience and lack of training, and then multigrade or overcrowded classrooms.

Finding 5. Student characteristics: Teachers ranked G1 students' low Lao language skills as most problematic for making progress in learning, followed by transition (or school readiness), student absenteeism, lack of interest, drop out and lastly poor health. In the case studies, student absenteeism was mentioned by respondents in most schools as a challenge, followed by student ethnicity, school readiness, and then student interest and attention.

3.2.3 Supports for Lao language teaching

This section reports data collected related to technical support for Lao language teaching (school level and district/provincial level) and the provision of resources (materials, financial and project).

Figure 16 maps whether a sub-theme was reported by one or more case study respondents (principal, G1 teacher, PA) at each school.

Types of Support for Lao Language Teaching	A	B	C	D	E	F	G	H	I	J	K	L
Technical support – school level: support provided by school principal, mentor/cluster head, colleagues, VEDC, and school exchanges												
Technical support – district/provincial-level: support provided by PESS and PA school visits during current school year												
Resource supports – materials: materials provided that support Lao language teaching e.g. supplementary teaching guides, textbooks, flashcards, etc												
Resource supports – financial: financial support provided												
Resource supports – project: resources or training provided by development partners												

Alphabet = Case Study Teachers, Colour = reported, No colour = not reported

Figure 26: Map of key sub-themes reported by case study respondents as supports for Lao language teaching

Technical support – school level

This section presents questionnaire and case study data by technical support provided ‘within schools’ and ‘across schools’. Respondents in 10 of the 12 case study schools reported there was some form of technical support related to Lao language teaching provided internally by their principal, and/or teacher colleagues or mentors within and external to their school.

Within schools

The questionnaire focused on the frequency of observation and feedback provided to teachers by their principal and teacher colleagues. Through case study interviews, supports for Lao language teaching was explored more extensively with respondents being asked to describe the kinds of support they have received, and who provided it.

Technical support provided by principals

Just over three quarters of surveyed teachers (77%) reported that their principal observed their teaching and provided them with feedback or advice at least once during this school year (this proportion is based on a subset of participants, as 54 teachers, or 16 per cent of respondents, were also the school principal). One third of teachers (33%) indicated that they were observed more than twice by the principal. Responses from principals were similar, with 73 per cent indicating that they had observed their G1 teachers teaching at least once.

More than half of the case study teachers (7 of 12) reported receiving some technical support from their principals. The types of support cited were assistance with preparing materials, lesson planning, pronunciation and teaching methods.

Case study principals were asked about their confidence in supporting G1 teachers with Lao language teaching. Seven of the nine principals (those also teaching G1 excluded) reported they were either 'very' or 'quite' confident. For example, two principals reported:

I am quite confident... the reason is that we often talked and discussed their challenges. Then I provide them some comments and suggestions on how to teach Lao language in a more effective way. (Principal, School F)

I am 100 per cent confident because I have monitored and advised teachers closely. I used to teach G1 for five years. (Principal, School J)

No principals reported they were not confident, but one cited 50 per cent confidence:

I am about 50 per cent confident because I never taught G1 and never had a training about teaching Grade 1. (Principal, School L)

Training was identified most often by case study principals as important for helping them to more effectively support their G1 teachers with Lao language teaching:

I would like to be trained together with G1 teacher because I can support her to prepare lesson plan and teaching plan and create teaching materials more effectively. If I don't know anything about Lao language teaching for G1 how can I support the teacher to do her job? (Principal, School G)

Technical support provided by teacher colleagues

Observation by teacher colleagues was less commonly reported by surveyed teachers, with over half of respondents (56%) indicating that no observation had taken place this school year. As the number of responses marked not applicable was considerably lower than for the previous question, it seems likely that many of those who indicated that there were no observations were teachers who were also principals. Of those who did report observation by colleagues, 14 per cent had been observed once, 14 per cent twice, and 16 per cent more than twice. Responses from principals were also similar, with 57 per cent indicating that no observations took place, 12 per cent once, 17 per cent twice and 14 per cent more than twice.

Teachers were also asked how often they work with other teachers on Lao language teaching. Examples of ways that teachers might work together that were provided in the questionnaire included discussing how to improve Lao language teaching, preparing lessons or materials, or observing or simulating lessons. One-third of surveyed teachers (32%) reported they do not work with other teachers on Lao language teaching. One-fifth reported they do this weekly (20%), one-third monthly (33%), and one-tenth each semester (11%).

In case study schools, the provision of support and advice from fellow teacher colleagues was reported by more than half (8 of 15) of case study teachers. In some cases, this appears to be through formal meetings (e.g. weekly or monthly meetings), or on a needs basis as reported by a less experienced G1 teacher:

I got support from [another G1 teacher from the same school]... she has experience teaching G1 for long time. If I don't understand some lessons I ask her to help me... because this is my first year teaching G1. (Teacher, School J)

In three case study schools (A, B, L), the practise of principal and/or teacher colleagues undertaking classroom observations and providing feedback was reported by respondents. For example:

I do classroom observations... I use the information from observations to provide feedback in the meetings (twice per semester) and then we discuss together and support each other. (Principal, School B)

Our teachers regularly learn from each other, but not from online media'. They like to observe other teachers then take on some methods or techniques to apply in their classes, for example how to produce the materials for Lao language teaching. Class A might share some materials with Class B. (PA, School A and B)

One principal explained that he has no time for classroom observations as he is also teaching Grade 5 (School J).

Case study respondents generally reported that support from the Village Education Development Committee (VEDCs) was limited for Lao language teaching. VEDCs were more focused on encouraging student enrolment and attendance.

Across schools

Exchanging teaching knowledge and experience across schools was reported as occurring across all case study schools in the northern and central regions, and one of the four schools in the south. In some cases this appears to be informal networking, and others more planned and institutionalised such as within school clusters:

We have teachers' meeting every month. In the meetings all teachers share problems of teaching or talk about how to improve teaching methods... meeting is rotated in different schools so we can exchange and share opinions with other teachers. (Teacher, School C)

Teacher participated in monthly meeting with other cluster school teachers to share lessons learnt on Lao language teaching, lesson plan, teaching resources and teaching approaches to make lessons more interesting for students. (PA, Schools G and H)

The presence of a mentor (or internal PA) was also reported by one school in the central region, and as a resource in southern case study schools by the PA. This role appears to be filled by a principal who is also the head of a school cluster. One teacher noted:

The most helpful support that I have had is the assistance from my mentor at the school. My mentor taught me how to make flashcards of Lao alphabets and vowels. He is available all the time and I can consult with him any problems related to Lao language teaching. (Teacher, School F)

Technical support – district/provincial level

In the questionnaires, teachers and principals were asked questions about the extent of professional support provided by district and provincial officials. Specifically, they were asked how often their PA visited their school during the 2018-19 school year. Principals were also asked the same question in relation to district officers. This was explored further through case study interviews.

About one quarter of teachers (26%) reported that the PA had not visited them this school year. Seventeen per cent had been visited once, 28 per cent twice and 30 per cent more than twice. About the same proportion of principals indicated that a PA had visited them twice or more (58%). Slightly fewer principals said that they had not received a visit from a PA (20%). The focus of these PA visits

has mostly been to give support or advice about teaching (66%), encourage discussions among teachers (50%), deliver resources (39%), collect data (37%), and administrative tasks (21%).

The majority of principals (80%) reported district officers had visited their school at least twice in the 2018-19 school year, and 11 per cent reported no visits at all.

In case study schools, respondents in five of the 12 schools (no schools in the southern region) reported they received PESS and/or PA supports, although frequency of visits vary. Generally these visits were focused on lesson planning, materials preparation, and teaching methods:

PESS visits out school every semester, but mainly we receive support from PA. They come to observe our teaching every month. PESS monitors school performance by checking the number of students, teaching materials, drop-out rate, enrolment rate, etc. We received suggestions and advice from PA on how to do lesson plan. Since then all teachers in our school have to do weekly lesson plans. Previously we did lesson plan only twice a year. (Teacher/principal, School A)

The PA for Lao language from DESB also monitors and assesses my Lao language teaching each semester. Then the PA will give me some advice, suggestions and guide me on how to improve my teaching skills, how to develop teaching materials and prepare the lessons. (Teacher, School G)

For one school, the PA noted she had not visited the school for 10 years. PAs who do not or rarely visit schools explained that they are constrained by a limited budget for monitoring and/or only visit schools that have made a formal request:

I have never monitored schools because they did not request it. I thought they are doing well. There is no budget for monitoring. (PA, School C and D)

It is quite difficult for us to go to each school and provide pedagogical support even though we have an annual plan to visit each school at least two times because we do not have enough budget. We rely on development projects. (PA, School E and F)

One PA explicitly noted the importance of school visits:

I think if PA could visit schools as planned, we could understand the problems that teachers are facing and we could find ways to support them. In our annual plan, PAs should visit each school at least twice a year... but we hardly visit any schools so we cannot support teachers as needed. (PA, School E and F)

Resource supports – materials

Respondents across nine case study schools identified materials that support Lao language teaching, often noting however, that the lack of materials was a key constraint. Materials identified as supportive included those provided by particular projects being implemented in their school and guidance from PESS and DESB.



The questionnaires asked teachers and principals to select from a list those things they considered would support G1 teachers to improve their Lao language teaching. Access to Lao language resources (e.g. textbooks, readers, and storybooks) was selected by most principals (85%) and teachers (86%) (refer Table 18).

Table 18: Supports for Grade 1 teachers to improve Lao language teaching

Support for Grade 1 Teachers' Lao Language Teaching	Principals	Teachers
	%	%
Access to teacher guides	56.0	61.1
Additional training about teaching Lao language to non-Lao speakers	56.6	62.5
Access to Lao language curriculum	60.9	63.4
Additional training about Lao language teaching methods	75.6	74.4
Additional training about Lao language curriculum	77.6	81.8
Access to Lao language resources (e.g. text books, readers, story books, etc)	85.3	85.6

Other resource supports – financial and project

The provision of financial support was identified by respondents in only three case study schools in the north and central regions. Funding supported the purchase of stationery and income for teachers to give additional classes.

Respondents from six of the 12 case study schools reported that development projects provided support to their school. Notably, none of these were in the southern region. Projects identified were EDP2 (training), support from CRS (training and materials), a hydropower dam project (materials) and an unspecified project about which a teacher reported:

We received a large amount of teaching materials, textbooks and teacher capacity building... they also helped teachers to understand how to use the materials in the classes. (Teacher, School B)

3.2.4 Impediments

The following section reports baseline data collected related to impediments or challenges that might have an impact on Lao language teaching in schools. Surveyed teachers were asked to respond to what extent certain aspects are an issue in their G1 class, and principals in relation to their school. Case study respondents were asked a more focused question about the challenges for G1 teachers in relation to Lao language teaching.

Figure 17 maps whether a sub-theme was reported by one or more case study respondents (principal, G1 teacher, PA) for a school.

Characteristics Observed	A	B	C	D	E	F	G	H	I	J	K	L
Teacher characteristics – teacher knowledge and experience: challenges related to teacher knowledge and experience of Lao language teaching												
Teacher characteristics – lack of training: challenges related to a lack of training in Lao language teaching and a need for additional training support												
Student characteristics – absenteeism: challenges related to student absenteeism												
Student characteristics – ethnicity: challenges related to student ethnicity and student home language												
Student characteristics – school readiness: challenges related to lack of student kindergarten/pre-school experience, age, readiness for school												
Student characteristics – interest and attention: challenges related to lack of student interest and attention												
Student characteristics – parental support: challenges related to lack of parental support												
School characteristics – lack of teaching materials and resources: challenges related to a lack of teaching materials and resources and a need for additional materials support												
School characteristics – multigrade / overcrowded classrooms: challenges related to teaching multigrade classes and large classes												

Colour = reported, No colour = not reported

Figure 37: Map of key sub-themes reported by case study respondents as challenges to Lao language teaching

For the purposes of reporting, the following sections are by ‘teacher’, ‘student’ and ‘school’ characteristics.

Teacher characteristics

Surveyed principals were asked to what extent a lack of qualified teachers, teacher absenteeism and teacher turnover were issues in their school. More than half of the principals (55%) reported that a lack of qualified teachers was to a moderate or large extent an issue in their school, followed by teacher absenteeism (33%) and teacher turnover (29%).

Respondents across 11 of the 12 case study schools reported teachers’ knowledge and experience of Lao language teaching as a challenge. The majority of responses focused on the teachers’ knowledge of Lao language and pronunciation, as well as lesson planning:

I am not confident in my teaching because I am from an ethnic minority group and that makes me feel not confident in the pronunciation of Lao alphabets and some words I do not know in Lao language. (Teacher/principal, School I)

G1 teacher has a knowledge with Lao language pronunciation... seems that G1 teacher is not confident in speaking Lao correctly. (Principal, School C)

Teacher does not have lesson plan and a proper teacher guide. She still lacks the knowledge to plan for her own teaching. (PA, Schools E and F)

The need for additional training was highlighted in the questionnaire and case study data. The questionnaires asked teachers and principals to select from a list those things they considered would support G1 teachers to improve their Lao language teaching. Additional training about the Lao language curriculum and Lao language teaching methods were selected by at least three-quarters of all surveyed principals and teachers, and additional training about teaching Lao to non-Lao speakers by more than half (refer to Table 18 in section 3.2.2).

Eleven of the case study schools highlighted the need for additional training as well. Teachers and principals identified training needs related to Lao language teaching methods, materials production, student assessment, teaching ethnic students, how to use the teachers' guide, and multigrade teaching. PAs also highlighted the need for training, citing training needs related to the new curriculum, teaching ethnic students, lesson planning, materials production, pronunciation, and student-centred and active pedagogies:

Teacher should receive more training on Lao language approaches, how to make students active, inclusive and more engaged in learning process. (PA, Schools G and H)

Student characteristics

Surveyed teachers were asked to what extent certain student features were issues in their G1 class. As seen in Figure 18, 70 per cent of teachers reported low Lao language skills as most problematic by reporting it as being an issue to a moderate or large extent, followed by readiness for transition to school (53%), lack of interest or motivation (50%), absenteeism (49%), drop out (21%) and poor health (11%).

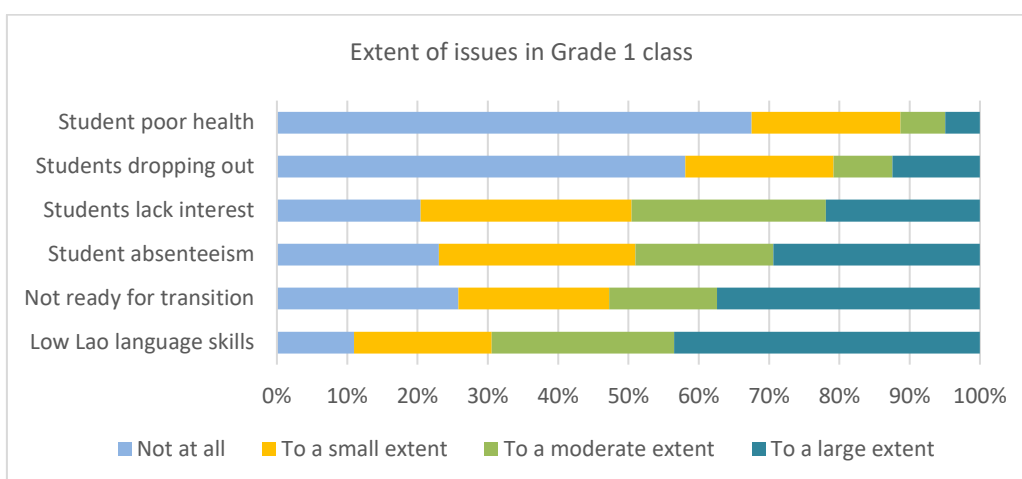


Figure 18: Surveyed teachers' perceptions of the extent of student issues in their G1 class

The issue highlighted by respondents across the most number of case study schools was student absenteeism (10 of 12 schools), followed by student ethnicity (9), and school readiness (7). A third or less schools mentioned students' interest and attention or lack of parental support as issues.

Respondents reported that student absenteeism was often due to children accompanying their parents to work in the field or look for forest food. Their absence affects the ability of teachers to teach the required curriculum content and student outcomes:

I cannot teach all the related Lao language curriculum for each week because of absent students. I have to repeat the same lesson about two to three times for the absent students before moving to the next lesson. Students do not come to school during the rice plantation season (June) and harvest season (Oct-Nov). Parents take them to the field. Otherwise there is nobody to take care of them at home during these times. (Teacher, School E)

I think students do not progress in Lao language at the level that is expected because students are always absent. For example, last year there were 27 students that failed and had to repeat G1 again this year. (Teacher, School K)

Student ethnicity and their home language was reported as a challenge to Lao language teaching given the need for teachers to communicate using local language, the lower levels of foundational Lao language knowledge and student difficulties with Lao pronunciation.

Related to the issues of absenteeism and ethnicity is school readiness. Some respondents reported the lack of kindergarten/pre-school as an impediment to students' readiness for G1:

Some students have not gone through kindergarten because their parents have to take them to the fields. (Teacher, School B)

If there is a kindergarten class it would help students to understand and learn better Lao language as they would have some background on Lao at pre-school. (Teacher/principal, School I)

School characteristics

Surveyed principals were asked to what extent a shortage or inadequacy of classrooms, toilets or instructional materials were issues in their school. As shown in Figure 19, more than three-quarters of the principals (77%) reported that shortage or inadequacy of materials was the greatest issue by reporting it as an issue to a moderate or large extent, followed by classrooms and toilets (52% each).

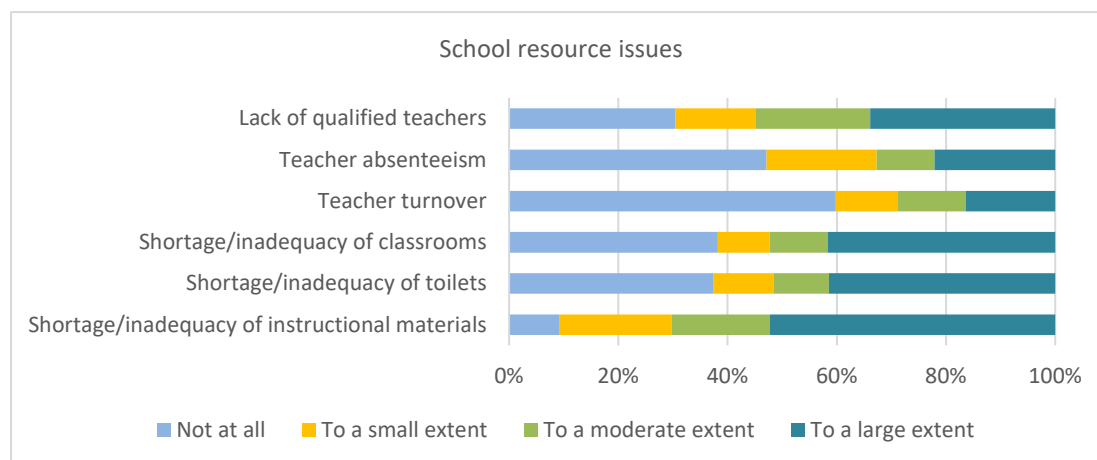


Figure 19: Surveyed principals' perceptions of the extent of issues in their school

This was confirmed by the case study data with all case study schools reporting a lack of teaching materials and resources as an impediment to Lao language teaching. As noted by one teacher/principal:

Resources are the main challenge for teaching Lao language. Only verbally explaining the lessons or writing the lesson on the blackboard is not interesting enough for students to study. It needs resources to make them excited and get their attention to study.

While many teachers produce their own teaching and learning materials to address this resource gap, they may not be sufficient or durable to last. Some respondents also noted that some children do not have notebooks, pens or pencils due to poverty.

Respondents in three case study schools raised teaching multigrade classes as a challenge, and two schools reported large classes as an issue:

Teacher can't focus on teaching a particular grade and support each individual student's needs because teacher is responsible for two classes. (Teacher, School G)

The classroom is crowded. It's difficult to teach. (Principal, School D)



4 Literacy outcomes

4.1 Students' existing literacy outcomes

4.1.1 Introduction

For this baseline study, data about existing students' literacy outcomes was collected via a Lao language literacy test for G1 students and case study interviews. The following sections detail case study teachers' and principals' perceptions of student performance and the G1 student test performance results.

4.1.2 Key findings

Finding 1. Summary: There was a wide variation in the extent of students' Lao language literacy proficiency. Approximately 40 per cent of students demonstrated Lao language literacy skills ranging from very basic to proficient and 60 per cent demonstrated limited, very limited or no Lao language literacy skills at all.

Finding 2. Performance by region: There were regional variations in student performance. For example, Sekong had the highest proportion of students in provisional cluster 6 (highest performing) and Phongsali had the highest proportion of students in provisional cluster 1 (lowest performing).

Finding 3. Performance by sex: There was no difference in the average performance of male and female students.

4.1.3 Teacher and principals' perceptions of student performance

In case study schools, teachers and principals were asked whether they thought G1 students were progressing in Lao language at the level expected for G1. Six of the 15 teachers reported their G1 students were progressing as expected, based on their observations of students' Lao speaking, reading and writing skills and pass rates for final exams:

When they first attended school they could not speak and read the Lao alphabet at all. After they have studied for some time they can speak and read many Lao words. Now my students can communicate with me in Lao language. (Teacher, School E)

Notably all principals and teachers in southern case study schools perceived that their G1 students were not progressing. Reasons given for these assessments were their observations about student absenteeism, drop out, and repetition, as well as their observations that students cannot read or do not pay attention.

Challenges raised by respondents included: ethnicity and limited use of Lao language at home; limited education levels of parents; student absenteeism; age (too old and too young); inappropriate teaching methods; poor school environment; lack of resources; and students not paying attention or completing their homework. As one teacher explains:

In my opinion, the students' progress in Lao language is not at the level expected for G1 because of many reasons. Firstly, most students are ethnic students, they don't use Lao language at home. Secondly, it's the learning process in the class. The students don't pay a lot of attention in

the class. The school environment is not attractive to students to learn Lao language in addition to a lack of learning materials. (Teacher, School C)

4.1.4 Summary of G1 student performance findings

The Lao Language Literacy Test for G1 students collected a snapshot of a few key literacy skills for G1 students near the end of the school year.

The test was administered one-to-one with the administrator asking the student each question and recording the response on a tablet. Hard copies of any material students needed to see, such as letters, words or illustrations were given to the student to hold and point to their answer.

Instructions were given in Lao language, followed by mother tongue if students did not appear to understand the Lao language instruction. Students were requested to respond in Lao language. Students who responded in mother tongue were reminded to use Lao language and scored zero if they could not use Lao language to answer that question. Students were not told if their response was correct or not, the administrator remained neutral and encouraging.

The test had five parts:

- Letter and sound recognition
- Speaking
- Reading fluency and comprehension
- Listening comprehension
- Writing (Tasks 1 and 2).

All the skills assessed in the test are G1 skills that are described in the current Lao language curriculum and are also in the new Lao language curriculum. The test tasks were generally easier than the extent of skills that either curriculum expects for G1.

There was a wide variation in the extent of students' Lao language literacy proficiency. Item Response Theory (IRT) was used to analyse the students' responses to the literacy assessment. Unfortunately there was not enough information from the assessment (in part due to the high rate of student absenteeism) to allow a single approach to be used when describing students and their literacy performance. For ease of interpretation, the students were grouped into six clusters, but two methods of grouping the students were applied.

The first grouping applied was qualitative in nature, based on the literacy test items and the percentages of students answering them correctly. The six clusters that resulted from this method (A) are presented in Figure 18 and Appendix C. The purpose of these clusters was to make it easier to understand the different skills students were able to demonstrate. However, due to the qualitative nature of this approach, information about which cluster a student belonged to was not available at the individual student level. In order to describe characteristics of the students in the six clusters, a second approach was applied.

The second grouping method (B) involved estimating a score for each student (using IRT software), which placed them on a preliminary scale. As a convenience, fixed intervals were used to apply cut points along the scale dividing the students into six clusters. While this approach intended to create clusters that were as closely related to the first six clusters as possible, there were slightly different percentages of students falling into each cluster compared to the first approach (see Table 19).

These clusters are used in Tables 19-22, with students in cluster 1 falling at the lower end of the scale, and those in cluster 6 at the upper end of the scale.

A single approach will be able to be finalised once a comprehensive literacy scale is established. It is intended that this scale will be developed during the midline study, when there will be more test items and more students that will contribute to the estimation of the scale. **The following clusters and their labels have been created for this reporting and are interim only for this initial study.** The six clusters developed by method A are:

- Proficient Lao language literacy skills for G1 (cluster 6)
- Basic Lao language literacy skills for G1 (cluster 5)
- Very basic Lao language literacy skills for G1 (cluster 4)
- Limited Lao language literacy skills for G1 (cluster 3)
- Very limited Lao language literacy skills for G1 (cluster 2)
- No Lao language literacy skills (cluster 1).

Approximately 40 per cent of students demonstrated Lao language literacy skills ranging from very basic to proficient and 60 per cent demonstrated limited, very limited or no Lao language literacy skills at all. Appendix C elaborates the skills demonstrated by each cluster.

% Students	Proficiency Levels
40%	<p>Proficient Lao language literacy for G1: 3% of students answered almost all questions correctly as well as demonstrating the highest level of skill for questions worth 2 or 3 points. These students are meeting G1 expectations for these skills.</p> <p>Basic Lao language literacy skills for G1: 12% of students answered many questions correctly, but some were incorrect. They demonstrated lower levels of skill for questions worth 2 or 3 points, suggesting that these students are working towards G1 expectations but need more time to consolidate their literacy skills.</p> <p>Very basic Lao language literacy skills for G1: 25% of students answered just over half the questions correctly and mainly demonstrated the lowest levels of skill for questions worth 2 or 3 points.</p>
60%	<p>Limited Lao language literacy skills for G1: 30% of students answered about one quarter of the questions correctly</p> <p>Very limited Lao language literacy skills for G1: 20% of students could only name 5 consonants.</p> <p>No Lao language literacy skills: 10% of students attempted many questions but scored zero for all.</p>

Figure 18: Overview of student performance

Shyness, reluctance to participate, or test fatigue did not seem to be a factor that might explain the low performance of many students as 95 per cent of students tried to answer the first eight questions in the test and 98 per cent tried to do the writing tasks at the end of the test. There were higher rates of students who did not attempt to answer other questions, but these ‘no attempts’ were mainly between 8-15 per cent. Most students were willing to try even though many of them were not successful.

Table 19 shows the percentages of students in each of the six clusters developed using method B, overall and by gender. A slightly higher percentage of male students were in cluster 4 (33%) compared to the percentage of female students in this cluster (29%). There were no differences in the percentages of male and female students in the other clusters.

Table 19: Percentages of students in each cluster (method B), overall and by gender

Breakdown	Cluster 1 %	Cluster 2 %	Cluster 3 %	Cluster 4 %	Cluster 5 %	Cluster 6 %
Overall	13.9	11.7	31.1	30.9	8.8	3.6
Male	12.8	12.0	31.7	32.6	7.8	3.3
Female	15.0	11.4	30.5	29.2	9.9	4.0

Cluster 1 = lowest performing, Cluster 6 = highest performing

Table 20 below shows the average per cent of test items answered correctly by students in each of the six clusters developed by method B, overall and by gender. Apart from male students in the highest cluster answering slightly more test items correctly (77%) compared to female students in this cluster (74%), were no differences in the performance of male and female students within each cluster.

Table 20: Average percentage of test items answered correctly by students in each cluster, overall and by gender

Breakdown	Cluster 1 %	Cluster 2 %	Cluster 3 %	Cluster 4 %	Cluster 5 %	Cluster 6 %
Overall	3.0	12.0	22.4	37.5	53.7	75.6
Male	3.1	12.0	22.4	37.6	53.0	76.9
Female	2.9	11.9	22.4	37.5	54.2	74.4

Cluster 1 = lowest performing, Cluster 6 = highest performing

Table 21 shows the percentage of students in each cluster, by province. Sekong had the highest proportion of students in provisional cluster 6 (highest performing) – eight per cent of students were in the highest cluster. Phongsali had the highest proportion of students in provisional cluster 1 (lowest performing) – one in five students were in the lowest cluster.

Table 21: Percentage of students in each cluster, by province

Province	Cluster 1 %	Cluster 2 %	Cluster 3 %	Cluster 4 %	Cluster 5 %	Cluster 6 %
Khammouane	3.6	8.4	34.1	42.5	10.1	1.3
Luangnamtha	15.0	14.6	29.1	30.5	7.5	3.3
Phongsali	19.7	13.8	34.4	25.2	5.5	1.4
Saravane	12.2	11.2	30.9	30.0	10.3	5.4
Savannakhet	17.7	11.7	29.3	29.1	8.9	3.3
Sekong	10.2	12.2	32.5	28.9	8.6	7.6
Overall	13.9	11.7	31.1	30.9	8.8	3.6

Cluster 1 = lowest performing, Cluster 6 = highest performing

There was no difference in the average performance of male and female students, with both male and female students answering an average of 28 per cent of test items correctly.

Table 22 gives the distribution of male and female students across the six provisional clusters, both at the provincial level, and overall. There was a slight tendency for a higher proportion of females than males falling into the higher clusters, which was more pronounced in regions such as Saravane. There was also a tendency for a higher proportion of females than males to fall into the lowest clusters, especially in Phongsali. The middle clusters seemed to have slightly more males than females, both overall and within most regions.

Table 22: Percentage of students in each cluster, by province and gender

Province	Gender	Cluster 1 %	Cluster 2 %	Cluster 3 %	Cluster 4 %	Cluster 5 %	Cluster 6 %
Khammouane	Male	3.3	8.0	35.3	42.0	10.0	1.3
	Female	3.8	8.9	32.9	43.0	10.1	1.3
Luangnamtha	Male	14.1	16.2	28.3	33.3	6.1	2.0
	Female	15.8	13.2	29.8	28.1	8.8	4.4
Phongsali	Male	14.6	15.5	37.9	27.2	3.9	1.0
	Female	24.3	12.2	31.3	23.5	7.0	1.7
Saravane	Male	10.7	12.4	32.6	31.8	8.2	4.3
	Female	13.9	9.8	28.9	27.8	12.9	6.7
Savannakhet	Male	17.0	10.8	28.5	31.9	8.2	3.6
	Female	18.5	12.7	30.1	26.1	9.6	3.0
Sekong	Male	10.6	13.8	34.0	27.7	7.4	6.4
	Female	9.7	10.7	31.1	30.1	9.7	8.7
Overall	Male	12.8	12.0	31.7	32.6	7.8	3.3
	Female	15.0	11.4	30.5	29.2	9.9	4.0

Cluster 1 = lowest performing, Cluster 6 = highest performing

The following sections consider each part of the test separately with discussion following the format of findings and new curriculum links (links to the new G1 curriculum outcomes).

Appendix C provides details of the test description and item statistics.

Note the test items did not show any gender bias based on statistical analysis of the Differential Item Function (DIF). That is, there were no items that unfairly favoured girls, and similarly there were no items that unfairly favoured boys. Note this does not necessarily mean that the test was of the same difficulty for boys and girls.

4.1.5 Letter and sound recognition

Findings

The average per cent correct response for naming the letter sounds was 65 per cent for consonants, 17 per cent for vowels and 13 per cent for compound consonants.

Naming consonants was the easiest task. Seven of the eight consonants were correctly named by at least 59 per cent of students. The easiest consonant was named by 79 per cent of students. The

most difficult consonant was named by 39 per cent of students. Approximately five per cent of students made no attempt to name any consonants.

Naming vowels was harder. Five of the eight vowels were correctly named by only 11-17 per cent of students, and three correctly named by between 20-37 per cent of students. Approximately 13 per cent of students made no attempt to name any vowels.

Naming compound consonants was very difficult. Only 11-13 per cent of students could do this. Approximately 11 per cent of students made no attempt to name any compound consonants.

New curriculum links

The new Lao language curriculum expects that by the end of G1 students will know most basic consonants, vowels and compound consonants. On average 12 per cent of students were able to complete the three tasks correctly (name 8 consonants, 8 vowels and 3 compound consonants), with 60 per cent only able to name most of the consonants and 20 per cent unable to name a single letter.

At least 80 per cent of G1 students in this study are a long way from meeting the new curriculum expectations for knowing basic letters and sounds. They also fall well short of the current curriculum expectation that they can name all letters and tone marks.

4.1.6 Speaking

Findings

Figure 20 shows the percentage of students scoring from 0-3 for each of the speaking criteria. Half the students (52%) were able to say at least 3 words in Lao language to describe the picture; they may also have used some mother tongue. These students were scored on the four speaking criteria. All other students (48%) were scored zero for speaking. This included students who said 1-2 Lao words but could not be encouraged to say more (26%), students who could not be understood or only used mother tongue (7%) and students who said nothing (15%). While shyness may be a factor for 15 per cent of students saying nothing about the picture, 95 per cent of students answered the first questions in the test about consonant sounds, suggesting that most students were willing to try if presented with a simple, familiar task.

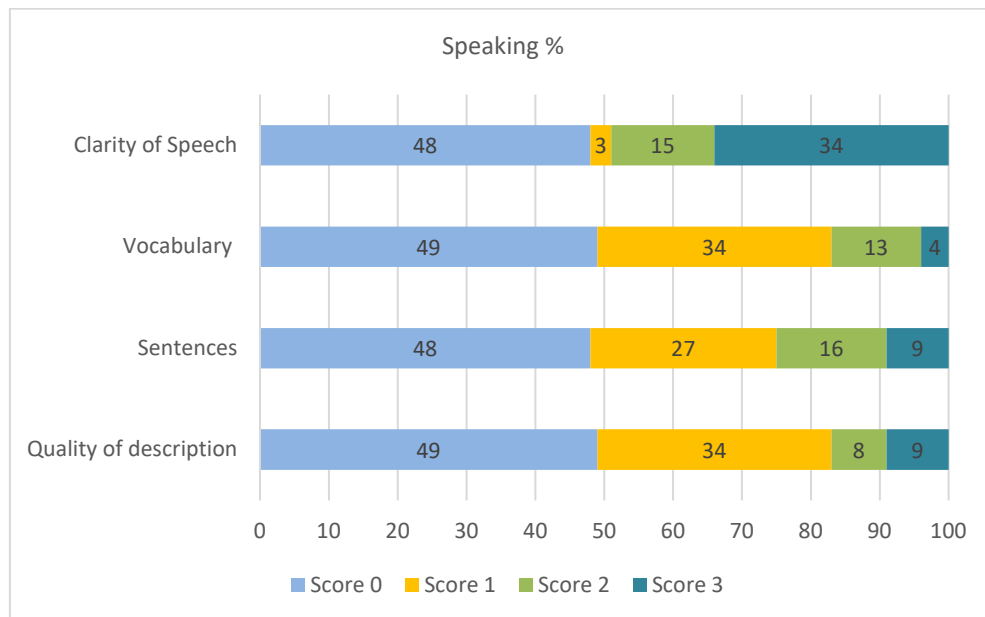


Figure 20: Speaking percentage scores for students

Clarity of speech: Clarity of speech was scored for using Lao language regardless of relevance to the picture. The results were: 34 per cent of students spoke clearly in Lao language (3 points); 15 per cent sometimes hard to understand (2 points); and three per cent mostly hard to understand (1 point).

Vocabulary: Vocabulary was scored for using Lao language relevant to the picture. The results were: four per cent of students said more than 10 different, relevant words (3 points); 13 per cent said 6-10 different, relevant words (2 points); and 34 per cent saying 3-5 relevant words (1 point).

Sentences: Sentences were scored for Lao language regardless of relevance to the picture. The results were: nine per cent of students said at least one sentence in Lao language of 4 words or more (3 points); 16 per cent gave at least one phrase of 2-3 words (2 points); and just over a quarter (27%) of students only said single words (1 point).

Quality of description: Quality was scored for using Lao language that was relevant to the picture. The results were: nine per cent of students gave details that were clearly related to the main ideas of the picture (3 points); eight per cent gave relevant details, but not about the main ideas (2 points); and 34 per cent gave no details, simply naming things (1 point).

New curriculum links

In the new curriculum G1 Speaking and Listening outcomes require students to use Lao language to communicate and learn. The outcomes include students knowing basic Lao language vocabulary and grammar, actively participating in using Lao language, making their meaning clear and using simple sentences. Under Different Text Types/Factual Descriptions/Spoken Texts students are expected to describe familiar things (objects, animals, people etc) using common names and describing appearance.

The current curriculum also expects G1 students to be able to give simple spoken descriptions about familiar things.

Approximately, half of the students in this study were able to use basic Lao language vocabulary to describe an everyday scene in a picture.

Approximately 20 per cent said 6 or more words, using phrases or sentences and providing some detail. These students appear to be meeting the new or current G1 expectations.

Approximately 30 per cent spoke Lao language clearly, using 3-5 words mainly as single words with no detail. These students are not using sentences and have limited capacity to communicate meaning in Lao language. These students need to say more and use some sentences to meet the new or current expectations for G1.

Of more concern is the other half of the students who either could not use any Lao language, or could only give two Lao language words in spite of encouragement to say more in describing an everyday scene in a picture. These students scored zero on all the speaking tasks. They fall well below the new and current G1 speaking outcomes. It seems unlikely that these students are able to use Lao language to communicate or learn.

4.1.7 Reading fluency and comprehension

Findings

Figure 21 shows the percentage of students who said the Lao word correctly (fluency) and the percentage who demonstrated comprehension of the word by pointing to the correct picture for the three words in the test.

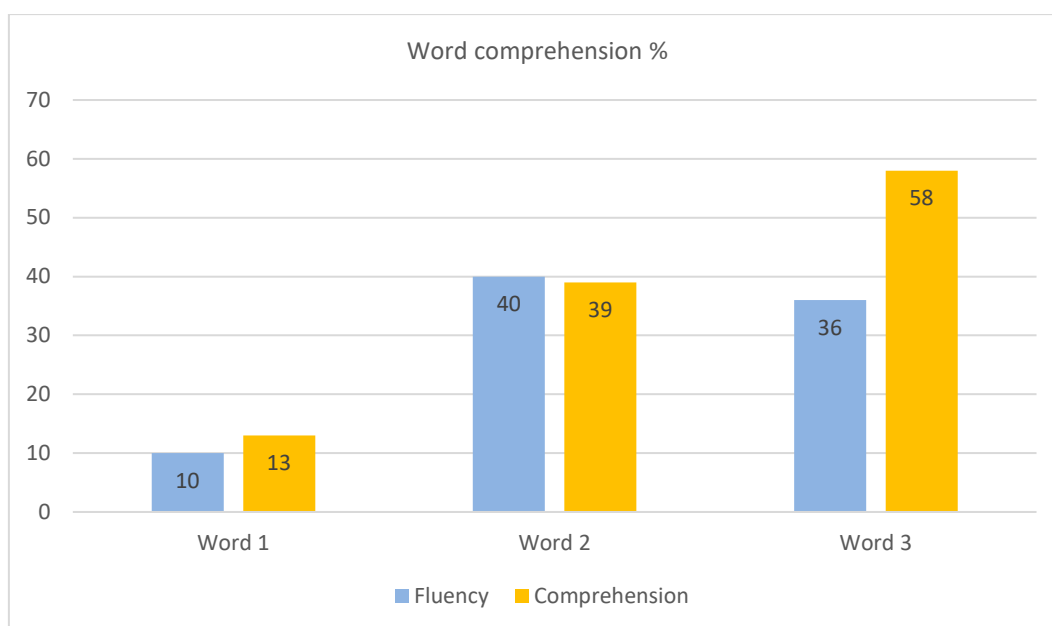


Figure 21: Word comprehension percentage scores for students

The three Lao words varied in their difficulty. All three words were common, everyday words describing familiar objects. Word 1 was difficult and only 10 per cent of students could both say it and match it to correct picture. Word 2 was slightly easier with approximately 40 per cent of students able to say it and match it to the correct picture. Word 3 was a word for a common classroom object. This was easier for more students to match to the picture (58%), but only 36 per cent could pronounce it.

On average 15 per cent of students made no attempt to read any of the Lao words or match them to their picture.

New curriculum links

In the new Lao language curriculum for Reading/Words and Texts students are expected to use phonic knowledge to read simple, familiar words and sentences and also to read unfamiliar words by blending based on their knowledge of letter sounds. They also expected to recognise at least 50 simple, high-frequency words as sight words. The words in this task were simple, familiar nouns, but they were not high-frequency words such as 'is', or 'and'.

G1 students are also expected to read 'study texts' aloud quickly and accurately and read for meaning, understanding words and sentences in order to successfully complete activities such as matching a word to a picture. The words in this task would be likely to be also used in study texts.

The current Lao language curriculum also requires G1 students to use their knowledge of letter sounds to read familiar words and sentences. Students are also expected to read a range of short texts and interpret the meaning.

Forty per cent of students could say and match two words, but only 10 per cent of students could read aloud and correctly match all three familiar words to their pictures.

Most students (over 85%) did not know any of the vowels or consonant clusters in the first part of this test, making it unlikely that these students have sufficient phonic knowledge to blend sounds and read simple, unfamiliar words. Where these students were able to read a word, it was likely this was a sight word which possibly explains why the word for a common classroom object was the easiest word to match to the correct object.

4.1.8 Sentence comprehension

Findings

Figure 22 shows the very small percentage of students who were able to read a sentence aloud and then follow the directions given in the sentence.

Almost no students could do this task. Only three per cent could read the sentence aloud, while six per cent could read a few words. Of those who read the sentence only 0.1 per cent followed the directions correctly, with two per cent partially following the directions.

Some students did not try to read the sentence (30%). As so few could read any of the words, it is not surprising that most students did not even try to follow the instruction (81%), however some still tried.

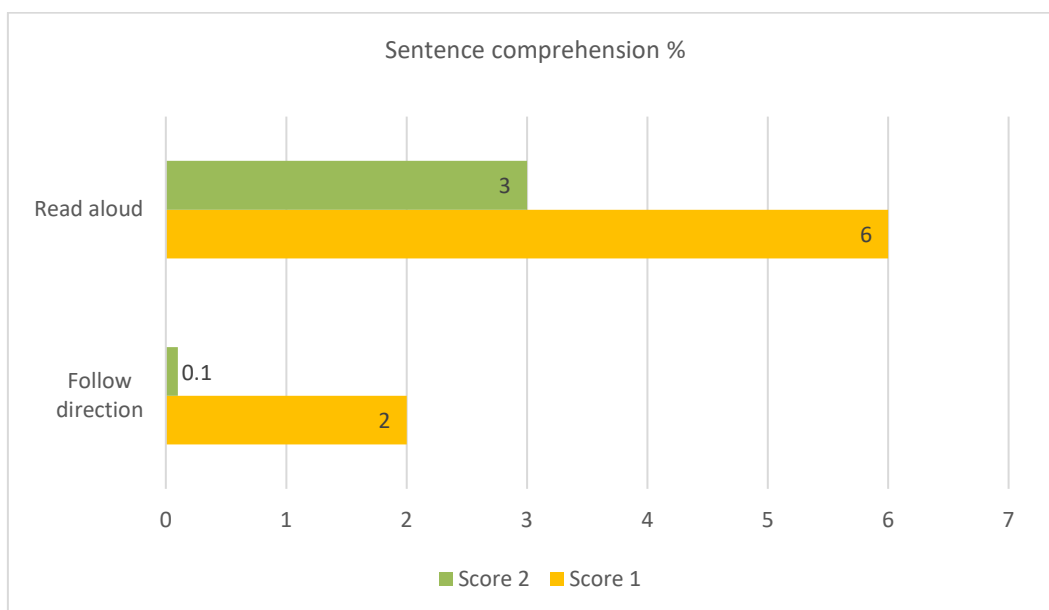


Figure 22: Sentence comprehension percentage scores for students

New curriculum links

The new Lao language curriculum for G1 Reading requires students to fluently read aloud study texts of up to 10 short sentences, reading quickly and accurately enough to understand most of the meaning so they can answer related, lower order, comprehension questions. Following the simple, familiar instruction in the test sentence is a lower order comprehension skill.

Under Different Text Types/Instructions Procedures/Reading Instructions students are expected to read simple instruction sentences and tell the meaning.

In the current Lao language curriculum G1 students are expected to read texts purposefully and to use the information including doing classroom activities based on the meaning given in the text.

Students in this study did not yet have the skills required as 95 per cent could not read a simple, previously unseen sentence or follow the instruction.

4.1.9 Listening comprehension

Findings

Figure 23 shows the percentage of students correctly answering each of the three listening comprehension questions.

Approximately half the students could answer the two questions about retrieving directly stated information, but only 10 per cent could make a simple inference.

Approximately 13 per cent did not attempt to answer the first two questions and 18 per cent did not attempt to answer the question about making an inference.

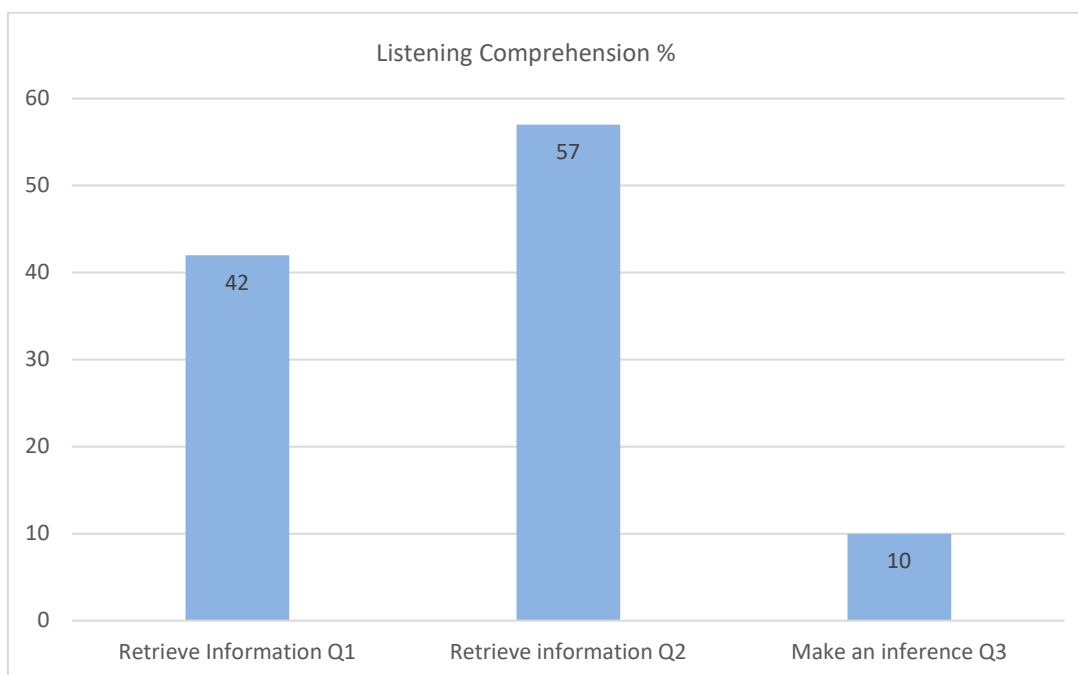


Figure 23: Listening comprehension percentage correct scores for students

New curriculum links

The new Lao language curriculum Speaking and Listening expects that G1 students will usually gain a rough understanding of meaning when listening in predictable contexts about familiar topics. They also should know the meaning of Lao language words used often in lessons.

Under Different Text Types/Narratives/Stories/Spoken Narratives they are expected to retell stories they have listened to and under Factual Descriptions/Information Texts/Spoken Information Texts they are expected to listen to information texts being read to them and identify specific information in response to the teacher's questions.

In the current Lao language curriculum students are expected to read a short text themselves and retell it in their own words, which is considerably harder than listening to the text.

Approximately half the students understood the main ideas of this short text that was read aloud to them, but the others did not. Almost none could make a simple inference.

4.1.10 Writing

Findings

Figure 24 shows the percentage of students who received zero scores for the first task, partially spelled the first or second word correctly (1 point), or spelt the whole of the first or second word correctly (2 points).

For the first word, one third of students received zero scores because they either made no attempt (23%), or had no letters correct (13%). Just under one third of students (28%) were partially correct and one third (34%) wrote this word correctly.

For the second word, one third of students received zero scores because they either made no attempt (17%), or had no letters correct (16%). Just over half the students (56%) had some correct letters, but nine per cent were fully correct.

Lao language is phonetically regular. This task shows that less than 10 per cent of students are able to hear the sounds in words and apply their knowledge of letter sounds to correctly spell two familiar words. In addition 40 per cent have limited success in identifying one or two sounds in a word and writing the correct letters for these sounds and the remaining half have not yet grasped these skills.

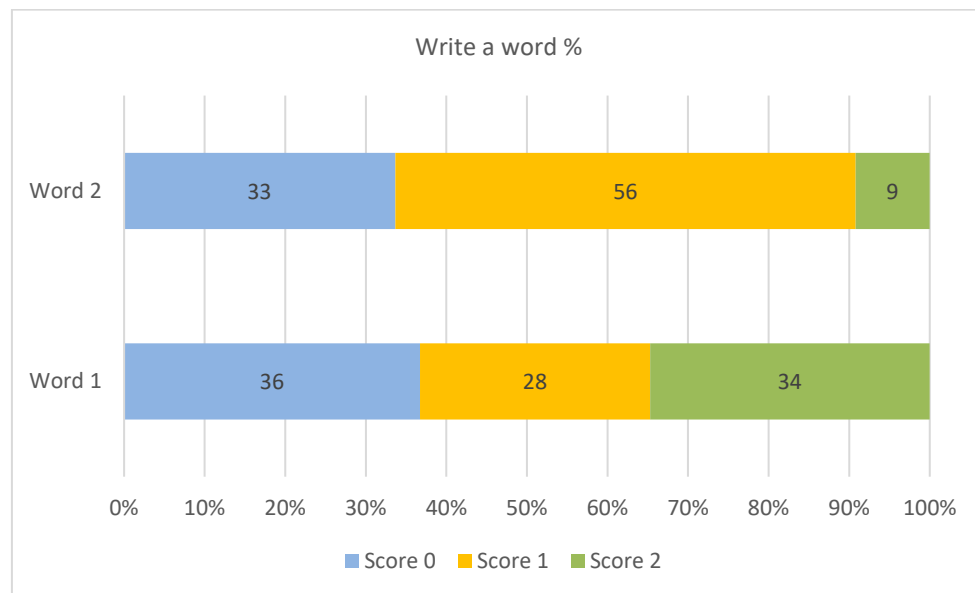


Figure 24: Write a word percentage scores for students

Figure 25 shows the percentage of students who achieved scores of 0, 1, 2 or 3 for writing a sentence for the three criteria of spelling, relevance and handwriting.

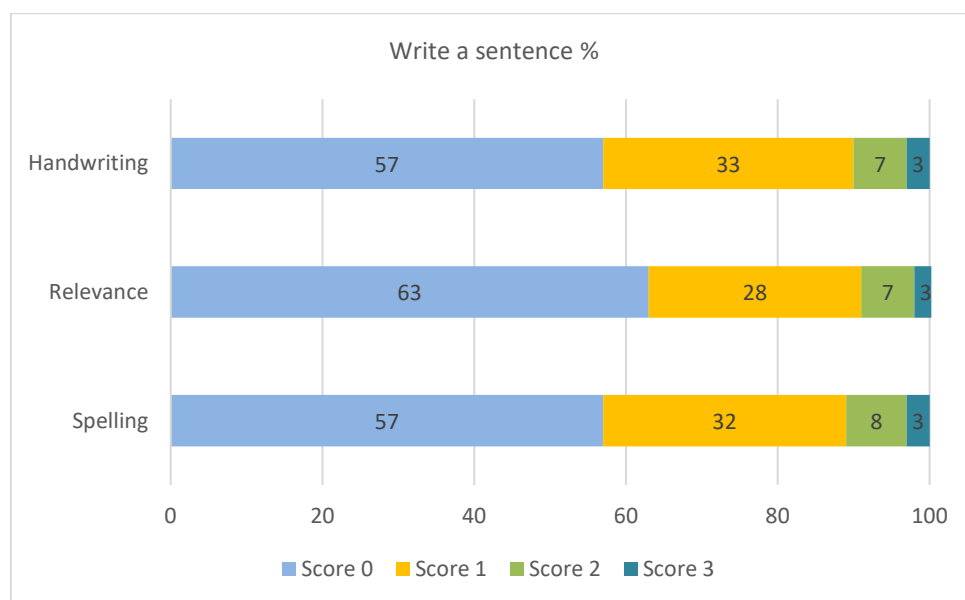


Figure 25: Write a sentence percentage score for students

Almost all students attempted to write with only two per cent not trying.

Handwriting: Over half (57%) the students scored zero because all their letters were poorly written or unrecognisable. One third (33%) wrote 1-2 words, seven per cent wrote 3-4 words and three per cent wrote 5 words or more that were all recognisable, written in Lao language with well-formed letters, regardless of whether they were relevant or had spelling errors.

Relevance: Almost two thirds (63%) of the students scored zero because any recognisable words they wrote were unrelated to the picture. Just under one third (28%) wrote 1-2 words, seven per cent wrote 3-4 words and three per cent wrote 5 or more words in Lao language that were all recognisable words that were related to the picture regardless of whether they were spelled correctly or not.

Spelling: Over half (57%) the students scored zero because they only wrote random letters or any words were not correctly spelled. One third (32%) wrote 1-2 words, eight per cent wrote 3-4 words and three per cent wrote 5 or more words in Lao language that were all correctly spelled.

New curriculum links

The new Lao language curriculum for Writing expects students to know how to form and write letters that are approximately the correct shape and size and to write simple, unfamiliar words using knowledge of letter sounds as well as writing simple, high frequency words from memory.

Under Different Text Types/Narratives/Stories/Writing Narratives students are expected to know how to write sentences that narrate a story.

The current Lao language curriculum requires students to use knowledge of letter names and tone marks to represent known words, use approximate spelling in their own writing, write most letters correctly and neatly, and to write their own short, simple texts including at least one sentence about familiar topics.

Approximately 10 per cent of students were able to spell two common words and write a sentence of 3 words or more that was relevant with correctly spelled words. These few students are meeting curriculum expectations for the current and new curriculum.

Approximately one third could write some single words and over half cannot yet write a recognisable word. These students are a long way from meeting the curriculum expectations for writing.

4.2 Factors associated with different levels of student performance

4.2.1 Introduction

This section explores how factors related to a child's home, classroom and school are associated with the different levels of performance reported in Section 4.1. Data about these factors was collected in the student questionnaire completed by tested students, and the student background questionnaire completed by the teachers or principals of each tested student.

4.2.2 Key findings

Finding 1. Students' home language: Students' home language was associated with test performance. Students who spoke Lao-Tai at home answered slightly more test items correctly than students who spoke other languages at home. Students in classes where a mother tongue language was frequently used tended to have poorer test performance.

Finding 2. Student absenteeism: Student absenteeism was associated with test performance. Students who were absent from school for more days answered fewer test items correctly, than students who were not absent at all.

Finding 3. Teacher training: There were very small differences between student test performance and teachers' type of pre-service training and their participation in in-service training.

4.2.3 Student characteristics

Student characteristics reported against were age, kindergarten/pre-school experience, home language, exposure to Lao language resources, and absenteeism.

Students' age

There was a slight tendency for older students to answer more test items correctly, with students aged six and below answering 27 per cent correctly, students aged seven to nine answering 29 per cent correctly, compared with students aged 10 or above answering 32 per cent correctly.

Students' participation in kindergarten or pre-school

Students who attended kindergarten or pre-school tended to answer slightly more test items correctly (30%) compared to students who did not attend kindergarten or pre-school (25%).

Student's language at home

Table 23 shows that students who spoke Lao-Tai at home answered slightly more test items correctly (34%) than students who spoke other languages at home (27%). Students who spoke Hmong-Lu Mien at home answered fewer test items correctly (14%) compared to students who spoke other languages at home (27%). There were no differences in the performance of male and female students within these language groups.

Table 23: Average percentage correct scores of students with different home languages, total and by gender

Language spoken at home	Total %	Male %	Female %
Lao – Tai	33.6	32.8	34.6
Mon – Khmer	25.0	25.1	24.7
Hmong – Lu Mien	14.0	13.2	14.7
Chine – Tibet	19.4	20.1	18.8
Other (specify)	27.1	28.3	25.8

Students' exposure to Lao language resources

Students who read at home, or go to places to borrow, read, or look at books answered more test items correctly (31%) than students who do not have this exposure outside of school (23%).

Students' absenteeism level

Table 24 shows that students who were absent from school for more days answered fewer test items correctly. Those who were absent the most (11 days or more) during the month of March (2019) performed least well, answering only 19 per cent of test items correctly. Students who were not absent at all answered 30 per cent of test items correctly.

Table 24: Average percentage correct scores of students grouped by days absent from school in March 2019

Days absent from school in March 2019	Total %
Not absent	30.1
Absent 1-5 days	26.8
Absent 6-10 days	22.9
Absent 11 days or more	19.3

4.2.4 Teacher characteristics

Teacher characteristics reported against were sex, age, years of teaching experience, qualifications, professional status, participation in in-service training, alignment between the teacher and students' home language. Also investigated were relationships between students' performance and hours spent teaching Lao language, teachers' use of resources, and teacher-reported hindrances to or enablers of effective Lao language teaching. Data about teachers was collected using the teacher questionnaire.

Teachers' gender

On average, students of female teachers answered more test items correctly (31%) than students of male teachers (25%).

Teachers' age

Students of teachers aged 30-49 years answered, on average, 29 percent of test items correctly. This is slightly more than students of both older teachers (50 years and over – 27%) and younger teachers (under 30 – 25%), however differences were small.

Teachers' teaching experience

As Table 25 shows, students of teachers with more teaching experience overall answered more test items correctly on average (see table 26). Again, the differences are only small.

The relationship between student test performance and teachers' experience was the same regardless of whether teachers were considering their experience overall, for G1, or within the current school.

Table 25: Average percentage correct scores of students grouped by teachers' experience in total, teaching G1 and within their current school

Number of years teaching	Total %	Within Grade 1 %	Within School %
Up to 5 years	26.4	27.3	26.2
6-10 years	26.5	28.8	28.5
11-15 years	28.1	27.6	30.1
16-20 years	30.8	30.9	31.9
21-25 years	26.8	34.4	32.5
26-30 years	30.7	32.5	39.0
31+ years	27.6	23.1	24.1

Teachers' highest education level and qualifications

As Table 26 shows, students of teachers with a bachelor degree or higher tended to answer more test items correctly (33%) than students of teachers with a diploma (27%). They also appeared to answer more test items correctly than students of teachers with vocational education (29%), however the difference was small.

Table 26: Average percentage correct scores of students grouped by teachers' highest level of education

Highest level of education	Correct Score %
Vocational education	28.5
Diploma	26.8
Bachelor degree or higher	33.4

All teachers of students who responded to test items had graduated from Teacher Training College. There was no difference between student test performance and the type of training their teacher received at teacher training college (refer Table 27).

Table 27: Average percentage correct scores of students grouped by type of training teachers received at Teacher Training College

Type of training received at Teacher Training College	Correct Score %
Basic Teacher training system 5+3, 8+1, 8+2	28.7
Mid-level Teacher training system 8+3, 11+1	28.4
High-level Teacher training system 11+3, 11+4	27.8

Teachers' professional status

Table 28 shows students of government (permanent) teachers (N=2654), and students of volunteer teachers (N=416) both answered, on average, more test items correctly (29% and 27%, respectively) than students of contract teachers (15%) (N=44).

Table 28: Average percentage correct scores of students grouped by teachers' professional status

Teacher professional status	Correct Score %
Government permanent	28.6
Contract	14.9
Volunteer	27.3

Teachers' participation in in-service training

There were very small differences in the test performance of students of teachers who attended in-service Lao language teaching training in the last two years. Table 29 shows students of teachers who attended more training (four or more days) answered fewer test items correctly (27%), compared to students of teachers who attended no training (31%).

Table 29: Average percentage correct scores of students grouped by teachers' participation in Lao language teacher training

Attended in-service Lao language teaching training in the last two years	Correct Score %
0 days	31.1
1-3 days	28.0
4 or more days	27.4

Teacher and student's language at home

Students who did not speak the same mother tongue as their teacher answered, on average, 25 per cent of test items correctly (see Table 30). Students who shared the same mother tongue as their teacher answered more test items correctly than their counterparts, if the mother tongue was Lao-Tai (34%).

Table 30: Average percentage correct scores of students grouped by shared mother tongue between student and teacher

Student and teacher share the same mother tongue	Correct Score %
Do not share the same mother tongue	24.9
Lao - Tai	33.9
Mon - Khmer	25.4
Hmong - Lu Mien	11.2
Chine - Tibet	22.3

Hours spent teaching Lao language

As shown in Table 31, there were only minor differences between student test performance and the number of hours spent per week by teachers teaching Lao language.

Table 31: Average percentage correct scores of students grouped by hours teacher spends teaching Lao language per week

Hours spent per week teaching Lao language	Correct Score %
1-5 hours	26.1
6-10 hours	28.4
10 or more hours	27.6

Teachers' use of Lao language resources

Surveyed teachers were asked to select from a list of Lao language resources all resources that they and their G1 students use. Listed was: curriculum materials; books; flashcards, pictures or posters; games or puzzles; songs, drama or physical actions; children's shows; and other.

The total number of Lao language resources used by teachers and G1 students was computed by adding up the number of responses selected. No teacher selected all seven options, but four teachers selected six out of seven. The 22 students of these teachers answered, on average, 36 per cent of test items correctly. The 12 students of the only teacher to select none of the options answered, on average, nine per cent of test items correctly (refer Table 32).

There is a weak but significant positive correlation ($r=0.13$) between student test performance and the number of Lao language resources used by teachers and G1 students in class.

Table 32: Average percentage correct scores of students grouped by total number of Lao language resources used by teachers and G1 students

Total number of Lao language resources used	N cases observed	Correct Score %
0	12	9.3
1	184	19.1
2	454	26.6
3	651	28.0
4	1035	29.9
5	756	29.1
6	22	35.6

Teachers' perception of challenges in their G1 class

Surveyed teachers were asked about perceived hindrances to teaching in their G1 class (student readiness, low level Lao language skills, lack of interest or motivation, absenteeism, drop out, poor health). There was a small, but significant positive relationship between teachers who perceived their class to have greater hindrances to teaching and who also had students with poorer test performance ($r=-0.18$).

Teaching confidence and teaching practices

In the questionnaire, teachers were asked about perceived difficulty in teaching different aspects of Lao language (speaking, reading, writing). There was a very weak negative correlation between teachers who reported greater difficulty in teaching these aspects and poorer test performance ($r=-0.09$). These teachers were also more likely to report greater hindrances to teaching in their class ($r=0.24$).

Teachers also responded to questions asked about confidence in using different Lao language teaching methods. No relationship was found between teacher confidence in these methods and student test performance, but more confident teachers were slightly less likely to perceive difficulty in teaching the different aspects of Lao language ($r=-0.15$).

Teachers were also asked about frequency undertaking different Lao language teaching activities (refer to curriculum materials, lesson planning, talk with students about their learning, assess students, work with other teachers). Teachers who indicated that they undertook a greater range of related teaching activities were more likely to perceive their class as having greater hindrances to teaching ($r=-0.12$), but no relationship with student test performance was observed.

Teachers reported on frequency engaging a mother tongue language for certain activities. Students in classes where these activities were undertaken more frequently, tended to have poorer test performance ($r=-0.12$). Increased frequency of these activities were positively associated with perceived hindrances to teaching from the principal's perspective ($r=0.15$), and the teacher's perspective ($r=0.14$).

4.2.5 School characteristics

School characteristics included those reported by principals, prevalence of multi-grade G1 class(es) and school facilities. Also investigated were relationships between student performance and principals' perceived hindrances to teaching. This data about principals and schools was collected using the principal questionnaire.

Principals' characteristics

There was a very slight difference in the test performance of students attending schools with male principals (27% of test items answered correctly) compared to students attending schools with female principals (30% correct).

As Table 33 shows, students attending schools with older principals tended to answer more test items correctly than students attending schools with younger principals.

Table 33: Average percentage correct scores of students grouped by principals' age

Principal age	Correct Score %
Under 30	22.2
30-49	27.3
50 and over	31.2

There was no obvious relationship between student test performance and principal experience (number of years being a principal), regardless of whether total experience or experience at the current school was considered. There was also no obvious relationship between student test performance and principal education level.

There was minimal difference in the test performance of students who attended schools where the principal indicated they had graduated from Teacher Training College (28% of test items answered correctly), compared to the students at schools where the principal indicated they did not graduate from Teacher Training College (30% correct). There was also no clear relationship between student test performance and type of training received by the principal at the Teacher Training College.

Multi-grade G1 classes

As Table 34 shows, students at schools with more than one single-grade G1 classes tended to answer more test items correctly (33%) than students at schools with no single-grade G1 class (23%).

Table 34: Average percentage correct scores of students grouped by number of single grade G1 classes

Number of single grade G1 classes	Correct Score %
0	23.2
1	28.9
2	33.4
3	33.4

Table 35 shows students at school with only one multi-grade G1 class appeared to answer fewer test items correctly (23%) than students at schools with either no multi-grade G1 classes (30%) or two multi-grade G1 classes (35%).

Table 35: Average percentage correct scores of students grouped by number of multi-grade G1 classes

Number of multi-grade G1 classes	Correct Score %
0	29.5
1	23.1
2	35.4

School facilities

Principals were asked to select from a list of 11 facilities, which of these were available in their school⁵. An index of the total number of school facilities available at school was created by adding the number of responses selected. Table 36 shows students attending schools with more facilities available tended to answer more test items correctly. For example, 38 per cent correct for the 140 students at schools with eight out of the 11 facilities. This is compared to students at schools with fewer facilities. For example 19 per cent correct for the 120 students with none of the 11 facilities.

⁵ These school facilities were: principal/staff office; library; canteen; school or community hall; sports area/playground; electricity; enough water accessible all year round; wheelchair access to bathroom and classroom and school ground; landline telephone; audio-visual facilities; and photocopier.

Table 36: Average percentage correct scores of students grouped by total count of school facilities

Total count of school facilities (max 11)	N cases	Correct Score %
0	120	19.3
1	311	23.4
2	442	26.1
3	593	25.9
4	567	26.2
5	370	30.7
6	421	33.0
7	267	25.2
8	140	37.8
9	96	33.9
10	40	30.3

There is a weak but significant positive correlation ($r=0.17$) between student test performance and the number of facilities available at school.

Principals' perception of issues in schools

Principals were asked to report on issues in their school (lack of qualified teachers, absenteeism, teacher turnover, and a shortage/inadequacy of classrooms, toilets and instructional materials). Students attending schools where principals perceived greater hindrances tended to have poorer test performance ($r=-0.09$). There was a small positive association between perspectives of hindrances from the teachers' perspective and the principals' perspective.

4.3 Students' existing attitudes and disposition towards learning

4.3.1 Introduction

For this baseline study, data about existing students' attitudes and disposition towards learning were collected primarily through teachers' perceptions via the questionnaire, case study interviews about students' enjoyment of Lao language classes, as well as classroom observations focused on the classroom environment.

4.3.2 Key finding

Finding 1. Classroom environment: One-third of case study teachers were observed to have created cooperative and supportive environments in both of their lessons. For the remaining two-thirds of teachers, classroom environments were observed to be: a mix of cooperative and supportive and compliant; compliant only; a mix of compliant and unruly; or unruly only.

4.3.3 Student enjoyment

In the questionnaire, teachers were asked to what extent their students enjoy or like to learn Lao language. About two thirds of teachers (67%) reported that their students enjoyed Lao language lessons to a large extent while a further 29 per cent indicated that their students enjoyed these lessons to a moderate extent.

Similar data was collected in case study schools, where the majority of teachers and principals also responded their G1 students do enjoy Lao language lessons (11 of 15 teachers; 8 of 9 principals). The reasons given for this by respondents were that students enjoyed the activities and looking at materials, such as singing, movement, stories, flashcards and pictures. Some teachers noted that those students who are able to undertake tasks enjoy the lessons:

“They enjoy the class because when they can read they are happy.” (Teacher, School K)

“I observed that my students will be happy and enjoy when I repeat the same lesson for many times. In other words, students will enjoy when they know how to read and write correctly. The classroom will be noisy and boring when they do not know how to read or write.” (Teacher, School G)

Respondents cited levels of absenteeism as an indication that students were not enjoying lessons. One teacher reflected:

“I think that most of them are not enjoying the class. I’m not sure whether it is because of the teacher’s teaching or themselves... I think they love mathematics because there are many games during the learning.” (Teacher, School J)

4.3.4 Classroom environment

In case study schools, researchers were required to make an assessment of the classroom environment. Table 37 below sets out examples of evidence that researchers might observe related to class environment and class interactions. Researchers were asked to select each evidence type observed, and to make an overall assessment as to whether the class was ‘cooperative and supportive’, ‘compliant’ or ‘unruly’. Cooperative and supportive environments are more likely to indicate the presence of positive student attitudes and dispositions towards learning.

Table 37: Classroom environment section of classroom observation instrument

Class is....	Evidence might include:
<ul style="list-style-type: none"> ○ Cooperative and supportive of one another 	<ul style="list-style-type: none"> ○ Teachers and students work together harmoniously ○ Classroom atmosphere is joyful ○ Interactions are respectful, kind and encouraging ○ Most activity focused on learning
<ul style="list-style-type: none"> ○ Compliant 	<ul style="list-style-type: none"> ○ Students do what the teacher says ○ Classroom atmosphere is complacent ○ Interactions are respectful but may not be kind or encouraging ○ Most activity focused on procedures and completing tasks
<ul style="list-style-type: none"> ○ Unruly 	<ul style="list-style-type: none"> ○ Students <u>do not</u> do what the teacher says ○ Classroom atmosphere is disrupted ○ Interactions are disrespectful ○ Most activity focused on managing student behaviour

As shown in Figure 26, researchers selected ‘cooperative and supportive’ for both observations of five out of 15 case study teachers. One teacher was classified as having a ‘compliant’ class for both observations, and two teachers were classified as having an ‘unruly’ class. Two teachers were assessed as having a mix of ‘cooperative and supportive’ and ‘compliant’ over the two lessons. Five teachers had a mix of ‘compliant’ and ‘unruly’.

Environment observed	A	B1	B2	C	D	E	F1	F2	G	H	I	J1	J2	K	L
Cooperative & supportive															
Compliant															
Unruly															

Alphabet = Case Study Teachers

Figure 26: Classroom environment assessment made by researchers during classroom observations

Set out below are some excerpts from researchers' notes for 'unruly' classes:

The majority of students are singing, playing and doing something else that is not related to Lao language study or to the lesson. The teacher keeps trying to tell them to be quiet but students do not listen. (School F)

The classroom is noisy. Some students of G1 and G2 walk in and out classroom many times. One student is running around the class and another one is singing and drawing cartoon, while teacher is instructing G2 students. Teacher tells students loudly to keep quiet and pay attention to study. (School G)

G1 students started fighting at minute 40 after being left for 10 minutes while the teacher was talking and checking group work results of G2 students. Two G1 students were also sleeping in the class. (School I)

5 Next steps – midline study

This concluding section outlines the steps for this Lao PDR study that were proposed prior to the COVID-19 pandemic. The timeline is currently being reconsidered in light of the pandemic, with a projected postponement of the midline data collection until 2021.

5.1 Quarter 1 2020

- Refinement of baseline instruments and protocols for midline
- Development of new Lao language literacy test
- Scheduling of midline data collection
- Securing data collection firm and researchers

5.2 Quarter 2 2020

- Training of researchers for midline data collection
- Midline data collection
- Verification of data sets

5.3 Quarter 3 2020

- Midline data cleaning
- Qualitative data analysis workshop
- Data analysis

5.4 Quarter 4 2020

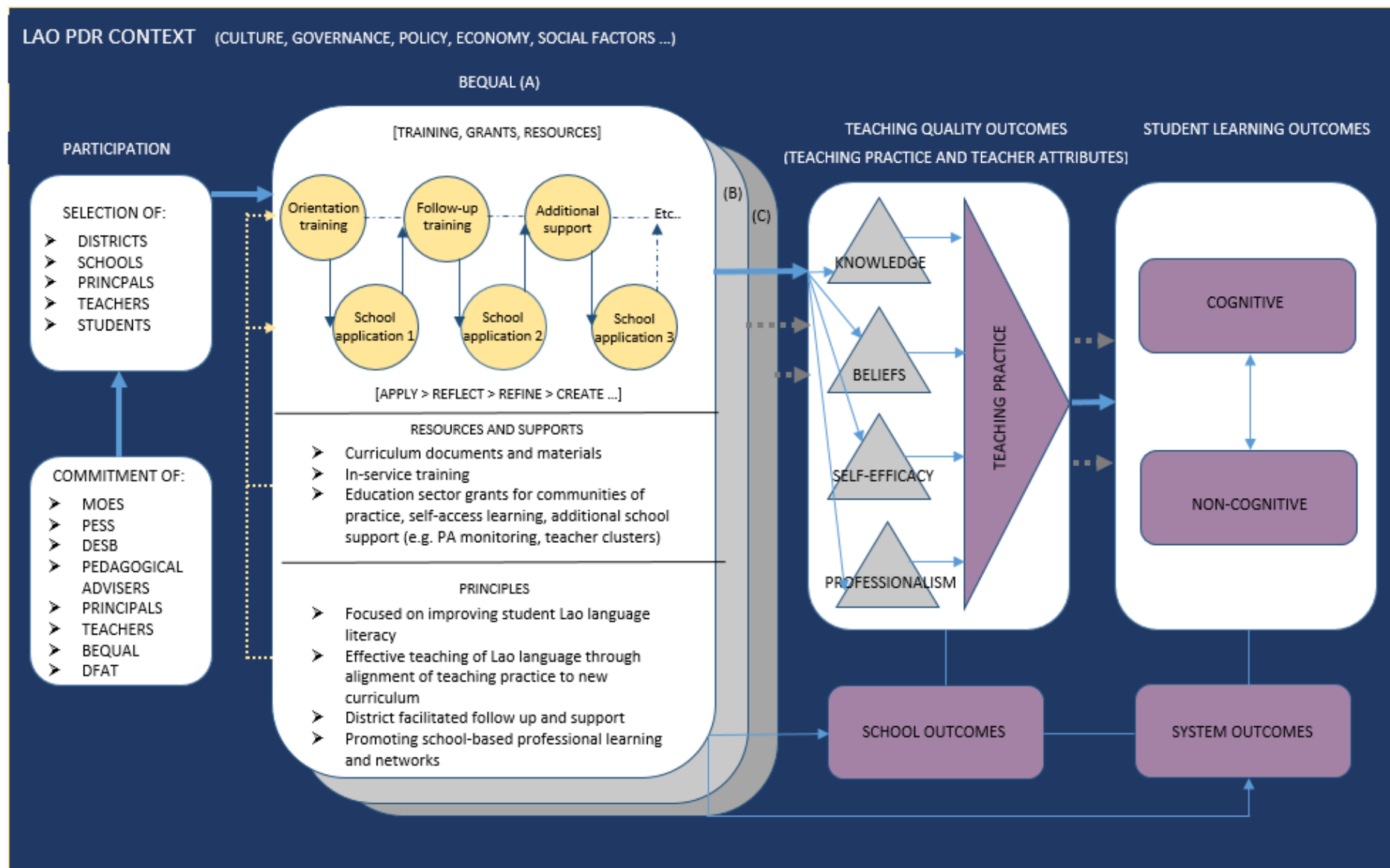
- Midline reporting
- Report dissemination
- Initial preparations for endline.

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Appendix A: Conceptual model



Appendix B: Detailed methodology

A key feature of the teacher development study series 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 and duration of the program investments, and enables an agile and adaptive approach that is responsive to contextual affordances and limitations. The study timeline spans four years, from 2019 until 2022, with three points of data collection – baseline (2019), midline (2020) and endline (2021).

As per other studies in the series, this Lao PDR study adopts a mixed methods approach utilising both quantitative and qualitative methods. However, in addition, it is longitudinal, designed to follow cohorts of students, teachers and principals over the course of the study period as the new curriculum is rolled out.

Quantitative

New data was collected to explore both teaching quality and student literacy outcomes for the baseline study. The quantitative data analysed for the baseline study included the teacher questionnaire, principal questionnaire, G1 test, student questionnaire and student background questionnaire.

ACER worked in partnership with LADLF and IRL, a Lao-PDR data collection firm, to collect the data.

Instrument and protocol design

All instruments were designed by ACER with input from LADLF, BEQUAL and IRL. ACER also developed an accompanying *Survey and G1 Test Administration Manual* and training package.

Teacher and principal questionnaire

The questionnaires were developed to collect quantitative data on existing teachers' knowledge, attitudes and practices from G1 teachers and their principals. These baseline instruments will be reviewed and updated for the midline and endline data collections. The baseline questionnaires were designed to enable examination of teachers' existing professional practices in relation to the types of changes to teaching quality and students' literacy outcomes that are expected with the new curriculum rollout and associated training, resources and support. The teachers' questionnaire was divided across five topic areas: (1) personal information; (2) teaching background; (3) in-service training and professional support; (4) your class; and (5) your Lao language teaching. The principals' questionnaire was similarly constructed covering: (1) personal information; (2) principal background; (3) your in-service training; (4) your school; (5) in-service training and professional support of teachers; (6) Lao language teaching.

The questionnaires were designed to be administered one-to-one in Lao language, with the administrator asking teachers and principals each question and recording the response on a tablet.

G1 test

The Lao language literacy test was a short test designed to collect a snapshot of a few key literacy skills for G1 students and included five parts: (1) letter and sound recognition; (2) speaking; (3) reading fluency and comprehension; (4) listening comprehension; and (5) writing. The G1 test will be reviewed and updated for the midline and endline. The G1 test was informed by the G1 new Lao language curriculum and the outcomes students are expected to achieve by the end of G1. Curriculum designers under the BEQUAL program reviewed the G1 test and provided advice.

The test was designed to be administered one-to-one with the administrator asking the student each question and recording the response on a tablet. Hard copies of any material students needed to see, such as letters, words or pictures were created to enable the student to hold and point to their answers. Instructions were to be given in Lao Language, followed by mother-tongue, if students did not appear to understand the Lao Language instruction. Students would be requested to respond in Lao Language. Students who responded in mother-tongue would score zero if they could not use Lao Language to answer that question.

Accompanying the test was a student questionnaire and a student background questionnaire. The student questionnaire would be administered to each tested G1 student, requesting information about their background. The student background questionnaire was a more comprehensive questionnaire about each tested G1 student, to be completed by either the students' G1 teacher or the school principal.

Translation and refinement

The instruments were translated into Lao by IRL translators, with linguistic review by IRL management and LADLF. ACER developed protocols for administration of the instruments.

These protocols were piloted with paper-based versions of the instruments across two days, with refinement taking place immediately following the piloting. ACER test developers reviewed the pilot test results to refine the test items.

Following finalisation of the instruments, IRL programmed them into their Computer Assisted Personal Interviewing (CAPI) system to facilitate tablet based data collection.

Sampling

The study includes three data collection activities across BEQUAL's targeted 32 districts in Lao PDR. These include a sample survey of G1 and G2 teachers and principals from public primary schools, a sample survey of principals in these schools and a sample survey of G1 and G2 students in the classrooms of surveyed teachers.

The sample was designed to be representative of the public primary schools in these districts. A sample size of 362 schools was established by LADLF, with the aim of achieving 95 per cent confidence intervals of within five per cent of an estimated teacher percentage outcome. The sample size was also determined in anticipation of an attrition rate of up to 20 per cent.

Figure B1 illustrates the sampling approach.

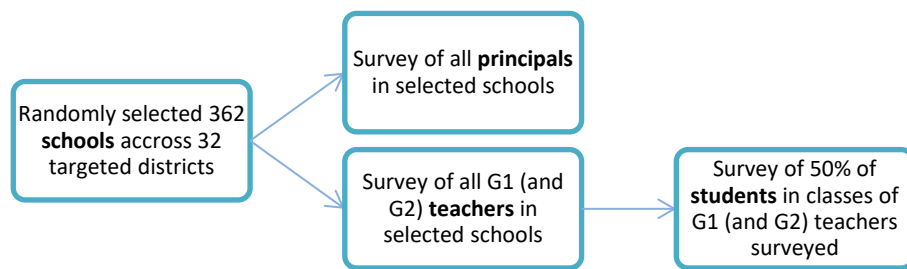


Figure B1: Sampling approach for quantitative data

A sampling frame was provided to ACER by LADLF and the distributions described in Tables B1 to B3 were observed across each of the stratification variables (with the exception of school size which was treated as a continuous variable). LADLF had established a simple random sample of schools, however the sample was redrawn in efforts to guarantee representation across each of the school demographic characteristics outlined here. Distributions of G1 students, G1 classes (indicative of teachers) and Schools are included. The sample was selected systematically from a sampling frame of eligible schools using an implicitly stratified, random start, constant interval method. This allowed for proportional representation across the 32 targeted districts. The sample was stratified by district, school completeness, single/multigrade structure, and school size.

There are 32 districts, two levels of completeness, and three levels of grade structure – schools that had single grade only, schools that had multigrade only, and schools that had both single G1 classes as well as G1 classes that formed a multi-grade class.

Schools were selected with equal probability. Therefore, the probability of selection for students or teachers is not accounted for in the design, and not equal. This design was optimised for the school level rather than for teacher or student level analysis.

Fifty per cent of students from each G1 class were selected at random, utilising the list of students from the teachers' attendance book and a random start method. Absent students were not replaced.

The distribution of the sample is provided for comparison alongside the population distributions.

Table B1: Population distribution by district

Code	Name	% of Grade 1 ENR	% of Grade 1 Classes	% of Schools	% of Grade 1 ENR	% of Grade 1 Classes	% of Schools
201	Phongsali	1.3%	2.4%	2.3%	1.0%	2.3%	2.2%
202	May	1.7%	3.6%	3.1%	1.9%	3.5%	3.0%
203	Khoua	1.2%	3.0%	2.5%	1.4%	3.5%	2.5%
204	Samphanh	2.0%	3.0%	2.7%	2.4%	3.2%	2.8%
206	Nhot Ou	1.7%	3.1%	2.4%	1.5%	2.8%	2.5%
302	Sing	2.6%	3.9%	3.7%	2.4%	3.7%	3.6%
303	Long	1.9%	2.2%	2.2%	1.6%	2.3%	2.2%
304	Viengphouka	1.8%	2.2%	2.3%	1.9%	2.5%	2.5%
305	Nalae	1.0%	1.2%	1.5%	0.9%	1.1%	1.4%
1202	Mahaxay	2.5%	3.1%	3.5%	2.1%	3.2%	3.6%
1205	Nhommalat	2.4%	2.4%	2.4%	2.7%	2.1%	2.2%
1206	Bualapha	3.4%	4.4%	4.0%	3.1%	4.2%	4.1%
1207	Nakai	2.3%	2.7%	2.6%	1.9%	2.8%	2.5%
1208	Xebangfay	1.6%	1.6%	2.0%	2.5%	1.6%	2.2%
1209	Xaybouathong	1.9%	1.9%	2.4%	1.6%	1.9%	2.2%
1302	Outhoomphone	4.6%	3.1%	3.6%	4.3%	2.8%	3.6%
1304	Phine	5.9%	5.1%	4.9%	5.6%	5.5%	5.0%
1305	Sepone	7.4%	5.3%	4.8%	7.3%	5.3%	4.7%
1306	Nong	4.1%	4.1%	3.5%	4.5%	4.2%	3.6%
1307	Thapangthong	3.1%	3.1%	3.6%	2.7%	3.4%	3.6%
1310	Xonbulu	4.6%	3.3%	4.6%	5.0%	3.2%	4.4%
1312	Vilabuly	3.2%	3.4%	3.2%	3.1%	3.4%	3.3%
1313	Atsaphone	3.7%	4.5%	4.9%	3.8%	4.4%	5.0%
1315	Phalanxay	3.6%	2.8%	3.2%	3.2%	2.7%	3.0%
1401	Saravane	6.9%	5.9%	5.9%	7.8%	5.5%	6.1%
1402	Ta Oi	3.7%	3.8%	2.8%	3.4%	3.5%	2.8%
1403	Toumlarn	2.9%	2.0%	2.0%	2.7%	1.6%	1.9%
1407	Lao Ngarm	6.2%	3.8%	4.7%	5.9%	4.1%	4.7%
1408	Samuoi	1.3%	1.7%	1.7%	1.3%	1.9%	1.7%
1502	Kaleum	2.8%	3.4%	2.6%	2.4%	3.2%	2.5%
1503	Dakcheung	2.8%	1.8%	2.1%	3.8%	2.1%	2.2%
1504	Thateng	3.9%	2.3%	2.4%	4.3%	2.7%	2.5%

Table B2: Population distribution by school completeness

	% of Grade 1 ENR	% of Grade 1 Classes	% of Schools	% of Grade 1 ENR	% of Grade 1 Classes	% of Schools
Complete	87.7%	77.9%	80.3%	87.8%	77.3%	79.6%
Incomplete	12.3%	22.1%	19.7%	12.3%	22.8%	20.4%

Table B3: Population distribution by grade structure

	% of Grade 1 ENR	% of Grade 1 Classes	% of Schools	% of Grade 1 ENR	% of Grade 1 Classes	% of Schools
Both	41.5%	41.1%	44.6%	42.4%	40.9%	44.5%
Multi	23.4%	41.0%	31.9%	24.9%	42.3%	32.3%
Single	35.1%	17.9%	23.5%	32.8%	16.8%	23.2%

The following section details the achieved sample. In total 362 target schools were included in the baseline study sample. As shown in Table B4, data was collected from 355 schools (seven schools were dropped mainly as they did not have G1 classes).

Table B4: Survey locations

Province	Districts	Number of schools
Khammouane	6	61
Luangnamtha	4	34
Phongsali	5	43
Saravane	5	61
Savannakhet	9	131
Sekong	3	25
Total	32	355

Teacher and principal study IDs were issued to 375 G1 teachers and 355 principals, respectively. Once absent and substitute teachers and principals were removed, the achieved sample was 347 G1 teachers and 348 principals. Tables B5 and B6 present these samples by province.

Table B5: Teacher sample, by province

Province	N of Teachers	% of Teachers	N of Teachers (excl. absent and substitute teachers)	% of Teachers (excl. absent and substitute teachers)
Khammouane	63	16.8	62	17.9
Luangnamtha	35	9.3	33	9.5
Phongsali	46	12.3	45	13.0
Saravane	65	17.3	57	16.4
Savannakhet	138	36.8	126	36.3
Sekong	28	7.5	24	6.9
Total	375	100.0	347	100.0

Table B6: Principal sample, by province

Province	N of Principals	% of Principals	N of Principals (excl. absent and substitute principals)	% of Principals (excl. absent and substitute principals)
Khammouane	61	17.2	60	17.2
Luangnamtha	34	9.6	34	9.8
Phongsali	43	12.1	39	11.2
Saravane	61	17.2	61	17.5
Savannakhet	131	36.9	129	37.1
Sekong	25	7.0	25	7.2
Total	355	100.0	348	100.0

Training

ACER delivered a four-day in-country training and piloting program in Vientiane (1-4 April 2019) to the IRL management team, trainers and lead administrators for this study. The training program included: (1) overview of the study; (2) child protection, data security and code of conduct; (3) quantitative methodology; (4) data collection instruments and protocols; (5) roles, responsibilities and logistics. The training sessions were translated into Lao by IRL

staff. At the completion of the two-day training component, the instruments and protocols were piloted over two days, with debriefs taking place at the end of each day.

A second seven-day training (26 April – 3 May 2019) was delivered by the IRL management team and LADLF with all administrators, which included going through the instruments comprehensively, practising on the tablets, mock interviews and field practice.

Data collection

IRL was responsible for contacting schools in advance of the school visits, which took place over two weeks from 7 to 20 May 2019. Schools should have received a MoES letter informing them of this work in advance.

The five instruments were administered by IRL in the sample schools with a team of 82 administrators. IRL assigned a specific study ID to each principal, teacher and student, even if absent, which will facilitate tracking over the longitudinal study period.

ACER advised IRL on a strategy for school substitution, and provided a list of substitute schools. Seven schools were dropped, mainly due to the lack of G1 classes. Fifteen schools were replaced.

The data collection was done via tablets using a SurveyToGO program and platform.

Quality assurance

IRL set up a team which included field work managers and quality control supervisors to monitor the quality of the data collection processes. LADLF also undertook monitoring during the period of data collection.

The SurveyToGO platform enabled IRL management to monitor the movement of administrators in the field as well as record voices during interviews for quality control purposes. IRL conducted back checks of 30 per cent of the audio recordings and monitored routes and locations tracked by GPS. The IRL data manager checked and monitored the data weekly, and conducted statistical testing to assess the quality and consistency of data. This included identification of missing or partial data, analysis of outliers, cross tabulations of final data set for sense checking.

IRL's data set was further quality assured by both LADLF and ACER, with IRL responding to data queries and verification checks.

Data analysis

The quantitative analysis for the questionnaire data used a range of methods as listed below.

- Descriptive statistics.
- Factor analysis to determine factors underlying sets of similar items in the questionnaires.
- Correlational analysis to determine the relationship between two factors or variables.
- Item response theory (IRT) to construct a metric for expressing teacher- and principal-level factors measured by the questionnaires as below:

- hindrances to teaching (principal questionnaire)
- hindrances to learning (teacher questionnaire)
- Lao language teaching activities (teacher questionnaire)
- Lao language teaching difficulties (teacher questionnaire)
- confidence in teaching Lao language (teacher questionnaire)
- use of mother tongue language for instruction (teacher questionnaire).

A high absentee rate among G1 students (and given no test was administered to G2 students at this stage of this baseline study) has led to the insufficiency of cognitive test data. At this stage of the study, it is therefore not possible to use IRT to construct a meaningful proficiency scale for reporting cognitive test performance. For this report, G1 student test performance was therefore predominantly analysed using percentage of test items answered correctly.

Due to the design of the sample, and the absence of population level data to inform design and weighting, standard errors which take into account the complex sample design could not be computed for any of the estimated parameters presented in this report. Therefore, it limited how the data can be analysed including significance tests for any observed differences between groups. For the same reason, caution needs to be used when interpreting the results presented in this report.

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 was gathered to assist the interpretation of program results.

The case studies are comprised of individual interviews with G1 teachers, their principals and pedagogical advisers (PAs), and classroom observations of G1 Lao literacy lessons.

ACER worked in partnership with LADLF and six case study researchers to collect the data.

Instrument and protocol design

All instruments were designed by ACER with input from LADLF, BEQUAL and the case study researchers. ACER also developed an accompanying *Case Study Administration Manual* and training package.

Interview guides

The interview guides were designed to enable researchers to work in pairs to conduct semi-structured individual interviews, to collect data from stakeholders on existing teachers' knowledge, attitudes and practices and student learning outcomes, and particularly aspects which support or constrain teaching and learning. Separate guides were developed for G1 teachers, principals and PAs.

These baseline instruments will be reviewed and updated for the midline and endline data collections.

Classroom observation

A classroom observation template and accompanying code book was designed to capture evidence about teaching pedagogy, classroom environment, student and teacher interactions and student dispositions to learning. This enables triangulation of the case study interview data with observations. The instrument was informed by the G1 new Lao language curriculum and the changes to teaching practices promoted in the teachers' guide and associated teacher training.

The template had five sections for researchers to record their observations against: (1) background information and consent; (2) how the lesson was prepared or started; (3) five minute instances across observation criteria; (4) resources used and classroom set-up; (5) classroom environment.

Researchers were instructed to observe two G1 Lao language lessons (at least 60 minutes per lesson) over their two-day visit to each school. Given classroom observations are more complex to undertake than interviews, the lead researcher would be responsible for completing these.

Translation and refinement

The interview guides were translated into Lao by the lead case study researchers, with linguistic review by LADLF. The classroom observation template and code book remained in English given the lead researchers were proficient in English. ACER developed protocols for their administration.

These protocols and instruments were piloted in two schools across two days, with refinement taking place immediately following the piloting.

Sampling

The 12 case study schools in six districts in three BEQUAL targeted provinces located across the country were selected purposefully. The six districts were selected to include a mix of high and low education performing districts, applying the Primary Education Performing Index (PEPI). Schools were then selected on the basis of being in the same 'cluster'. Advice was provided by DESB on other criteria, to ensure inclusion of schools that are ethnically diverse and represent a diversity of contexts.

Training

ACER delivered with LADLF a four-day in-country training and piloting program in Vientiane (26-29 March 2019) to the three lead case study researchers. The training program included: (1) overview of the study; (2) child protection, data security and code of conduct; (3) qualitative methodology; (4) data collection instruments and protocols; (5) roles, responsibilities and logistics. The instruments and protocols were piloted over two days, with debriefs taking place at the end of each day.

A second training was delivered by LADLF with all six researchers, which included going through the instruments comprehensively and mock interviews.

Data collection

The researchers collected case study data over the period of 29 April to 10 May 2019. The lead researchers was responsible for contacting schools in advance of the school visits. Schools should have received a MoES letter informing them of this work in advance.

Thirty-four interviews (15 teachers, 12 principals and seven district PAs) were completed for the case studies. Interviews were conducted in Lao and transcribed into English for analysis. The researchers also conducted 30 classroom observations of G1 Lao language lessons, or two lessons per teacher.

Quality assurance

The LADLF team undertook monitoring over several case study schools to provide a quality assurance and oversight role. The researchers were required to complete their transcripts and observation templates while in the field. These were reviewed by LADLF and ACER, and researchers were required to respond to queries.

Data analysis

Analysis of the data occurred over two phases. ACER designed this process to enable active involvement of lead researchers in the initial data analysis process, acknowledging that they had extensive and rich knowledge to contribute to the analysis process based on their case study experience.

Firstly, ACER and LADLF worked with the three lead researchers during a 2.5 day data analysis workshop to map interview and observation data against high-level themes identified by ACER. These high-level themes aligned with those identified in the Conceptual Framework (ACER, 2017) and key sub-questions in the study. (See Appendix A 'conceptual model' which illustrates a customised model for this Lao PDR study). In this workshop, the researchers identified core sub-themes and additional themes and presented on these. Through facilitated discussion, these sub-themes were then refined.

The second stage of work involved ACER conducting more detailed analysis of the interview transcripts. This involved collating evidence from interview data against the sub-themes identified in the data analysis workshop to look both within schools and across schools (and regions) for similarities and differences, and tabulating responses.

ACER then analysed the classroom observations. This involved reviewing the contextual information recorded by researchers, creating observation maps by theme (interactions, pedagogy, gender, inclusivity), undertaking quantitative analysis of theme activities observed across the duration of lessons, and reviewing records of the classroom environment.

A primary objective for this baseline study was to create visual displays of the data in an attempt to understand and represent the rich detail, and facilitate the ability to monitor changes over the study period.

Limitations

There are some limitations to this Lao PDR study.

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, extra tuition outside school, or extra training for teachers provided by another donor intervention.

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.

Generalisability

The qualitative case studies are not intended to generalise the impact of the BEQUAL program across Lao PDR. Case studies are intended to explore the experience of the investment by educational stakeholders in a small number of schools, across a multitude of variables. In this way, the case studies are intensive rather than extensive. The ability to extract this level of detail from the BEQUAL program 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.

Access to participants

There was a tight timeframe for the quantitative data collection, with field work needing to take place after a large national holiday period and before end of year school closures. The field work period was scheduled at the beginning of the rainy season, which affected travelling time for the quantitative data collection teams. In some schools, it was also the final exam preparation week.

The timeframe made it difficult to re-schedule interviews for principals and teachers who were away. There was also high numbers of student absenteeism.

Data collection instruments

Classroom observations

For the case studies, researchers found the classroom observation form was difficult to complete for multigrade classes. Whilst researchers were advised to observe the class as a whole (not just G1 students), the ‘minutes’ observations were difficult to complete in cases where the class was divided in separate groups and managed separately by the teacher. Researchers were advised to add notes wherever they were uncertain of their coding which should help checking for consistencies.

As part of classroom observations, researchers tried to observe whether there was much classroom talk involving students. However it proved challenging to achieve consistency in observations across researchers, and coding of this element of interaction will need refinement for the midline data collection.

Interviews

In some schools, the G1 teacher was also acting as school principal. In these cases it was left to researchers to determine overlapping questions and decide whether to go through these questions again or not (for example, one team took that opportunity to dig deeper in the interview whilst another team only focussed on additional questions in the principal interview). For some schools which had been through recent restructure, the identification of the principal was difficult. There appeared to be no officially designated principal and researchers decided to interview the head teacher upon advice from the PA.

The quantitative instruments seemed to work well and no significant issues were reported by IRL or LADLF.

Appendix C: G1 student performance in Lao literacy

Lao language skills demonstrated by cluster

The table below elaborates the Lao language literacy skills demonstrated by each G1 cluster (derived using method A).

Cluster and per cent of students	Skills demonstrated
Proficient Lao language literacy for G1 3%	Name 8 consonants, 8 vowels and 3 compound consonants Describe a picture, speaking clearly using 10 or more different, relevant words in sentences with relevant details Match 3 words to their pictures and say all 3 aloud Answer 3 questions about a story read aloud to them using explicit information and making an inference Read a short instruction aloud and follow it. Correctly spell 2 given words Write a sentence to describe a picture using 5 or more words that are relevant, correctly spelled with well-formed letters.
Basic Lao language literacy skills for G1 12%	Name 8 consonants, 4 vowels and 1 compound consonant Describe a picture, speaking clearly using 2-3 relevant words in a phrase or short sentence Match 3 words to their pictures and say 2 aloud Answer 2 questions about explicit information in a story read aloud to them Read a short instruction aloud, but do not follow it Correctly spell 1 given word Write 1-2 words to describe a picture that are relevant, correctly spelled with well-formed letters.
Very basic Lao language literacy skills for G1 25%	Name 8 consonants and 1 vowel Describe a picture, speaking clearly in Lao Language using 3-5 relevant words and at least one phrase Match 2 words to their pictures and say both aloud Answer 2 questions about explicit information in a story read aloud to them Correctly spell 1 given word Write 1-2 words with well-formed letters in a sentence to describe a picture
Limited Lao language literacy skills for G1 30%	Name 7 consonants Describe a picture using 3-5 single, relevant Lao words, when some are hard to understand and there are no details Match a word to its picture but do not say the word aloud Answer 1 question about explicit information in a story read aloud to them Correctly write some letters, but incorrect in spelling in 2 given words

Very limited Lao language literacy skills for G1 20%	Name 5 consonants
No Lao language literacy skills 10%	Students tried to answer some questions but did not score above zero.

G1 test description and item statistics

The following sections describes each test component and item statistics.

Letter and sound recognition

Test description

There were three tasks in the test of letter and sound recognition: name 8 consonants, name 8 vowels, and name 3 compound consonants. Students were given two practice examples before each task.

Statistics

All the test questions had good statistics. The items discriminated between students with greater or lesser Lao language literacy skills and showed that the range of literacy skills assessed were related skills.

Speaking

Test description

Students were shown a picture of an everyday scene with children and adults engaged in familiar tasks and asked to say what was happening in the picture using Lao language. They were encouraged to keep talking with three additional prompts given asking them about what else they could see. Students who said three or more words in Lao language that could be understood (regardless of their relevance to the picture) were then scored for:

- Clarity of speech
- Vocabulary
- Sentences
- Quality of descriptions.

The four criteria each had scores from 1-3 to differentiate the quality of the students' responses. Scores of 3 were for the highest level of performance. Few students achieved scores of 3.

Students who used mother tongue (even when reminded to use Lao language) and students who only said 1 or 2 words in Lao language were scored zero for speaking for all four criteria as they had not said enough to be scored.

Statistics

The statistics for speaking show that speaking is a different type of skill compared with letter-sound knowledge. Although both skills are very different both are important for establishing literacy. There is a reasonable positive correlation between speaking scores and the remainder of the test even though the reliability is limited by the small number of students gaining the highest speaking scores.

Reading fluency and comprehension

Test description

Students were given a sheet with three Lao words and four pictures not matched to the correct word. Students had to say each word and then point to the correct picture for that word. Students were scored for pronouncing the word correctly and for selecting the correct picture. The words were familiar, common nouns that students might either recognise by sight or use blending to read.

Statistics

This task was well correlated with the rest of the tasks in the test. One word, which referred to a common classroom object, was much easier than the other two words. The statistics suggested that some students who could match this word to a picture, were possibly advantaged by having seen this word as a label for this object in their classroom.

Sentence comprehension

Test description

Students were given a short written instruction in Lao consisting of one short sentence that used some high-frequency words and very common, familiar nouns. Students were asked to read the sentence aloud and then to do as the sentence instructed. The instruction was familiar, simple and explicit requiring minimal comprehension skill. Students who read the whole sentence correctly received a score of 2, while partially correct reading aloud was scored as 1. Students who followed the instruction correctly scored 2, while students who partially followed the instruction scored 1.

Statistics

This task was too difficult for most students. Very few students scored 1 and almost no students scored 2 for reading aloud or following the instruction. The indicative statistics look reasonable, but the number of correct responses is too low for accurate estimations. Extremely small numbers mean the results may be chance outcomes.

Listening comprehension

Test description

Students listened to a very short story in Lao (less than 50 words) read aloud by the administrator, about a highly familiar, simple event involving a child and a common animal. The event was briefly described including the response of the child and the animal.

Students then answered three oral questions about the story. Two questions required remembering directly stated information about the event and one question required students to make a simple, everyday inference based on clear clues.

Statistics

The statistics for listening comprehension show that this is a different type of skill compared with letter-sound knowledge. Although the skills are very different, both are important for establishing literacy. This task had the lowest correlation with the rest of the test suggesting that minimal comprehension was required for most of the other tasks, excluding the sentence comprehension task. Insufficient students were successful on this task to show reliable correlation.

Writing

Test description

There were two writing tasks: writing a word and writing a sentence in Lao language. For writing a word, students were shown a picture of a familiar animal. The administrator said the name of the animal aloud and asked the student to write this name. Students wrote the names for two familiar animals. They scored two points if all letters were correct. They scored one point if some letters were correct but others were incorrect, or if the correct letters were in the wrong order.

For writing a sentence, students were shown the same picture that was used in the earlier speaking task. They were asked to write anything about the picture in Lao language. There were three criteria for writing a sentence: spelling; relevance; and handwriting. Each criteria was scored from zero to three points.

Statistics

The statistics for writing a word and a sentence showed a high correlation with the rest of the test. However writing a sentence was too hard for many students so these statistics are not reliable.