Insights from **INOVASI** Volume II:

INOVASI AND THE REFORM OF INDONESIAN EDUCATION

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INOVASI program is a partnership between the governments of Australia and Indonesia. Working directly with Indonesia's Ministry of Education and Culture, INOVASI seeks to identify and support changes to education practice, systems and policy which demonstrably accelerate improved student learning outcomes. The program (2016-2023) supports government partners (sub-national and national) to pilot, scale-out and institutionalise effective approaches. It responds to government of Indonesia requests for systems and policy support and seeks to broker connections and partnerships with civil society organisations and the private sector. The program has three focal areas for investigation: the quality of teaching in the classroom, the quality of support for teachers, and learning for all. The Program is managed by Palladium on behalf of Department of Foreign Affairs and Trade (DFAT) Australia.

Insights from INOVASI:

INOVASI and the reform of Indonesian Education

Writers:

Mark Heyward

Lynne Hill

Robert Cannon

Laetitia Lemaistre

Mary Fearnley-Sander

Sri Widuri

Handoko Widagdo

Stuart Weston

Robert Randall

Beth Sprunt

Felicity Pascoe

Editors:

Mary Fearnley-Sander

Simon Milligan

Mark Heyward

Lynne Hill

Rasita Purba

Cover & Infographic Design:

The Communication Unit of INOVASI

Pictures:

Documentation of INOVASI

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of the printing company.

Foreword

The Indonesian government is undertaking an ambitious reform of basic education. Currently called *Merdeka Belajar* (Emancipated Learning), this reform represents a transformational change in the way education is conceived and deliver-ed in Indonesia.

The Innovation for Indonesia's School Children (INOVASI) prog-ram played a key role supporting the government to find out what works to improve learning outcomes, to address COVID-19 related learning loss, and to develop and trial its new curriculum, assessment, and teacher development systems.

In such a vast education system, comprising over 50 million students, three million teachers, and 700 local languages, the success of these reforms is extremely consequential.

The first two phases of INOVASI represent an eight-year investment, managed by Palladium on behalf of the Australian government, through the Department of Foreign Affairs and Trade (DFAT). The program focused on the foundational skills of literacy, numeracy, and character education. It sought to address gender equality, and improve outcomes for children with a disability, children from remote communities, and speakers of local languages. Using an adaptive approach, INOVASI became a trusted friend, a partner to Indonesia's government. The current phase of the program ends in December 2023. National elections are scheduled to take place in 2024. The focus is now on the sustainability of Indonesia's comprehensive reforms.

Insights from INOVASI explores the reforms, and INOVASI's approach to partnership and adaptive programming, in two volumes. The first volume, *Indonesia's twenty-year reform*

journey, describes the trajectory of Indonesia's reforms, beginning with the decentralization of basic education in 2000s and culminating in the current transformational reforms in 2023. The second volume, *INOVASI and the reform of Indonesian education*, explores the ways in which INOVASI evolved as a development program - how it worked in adaptive and responsive ways to support the Indonesian government as it crafted those reforms.

What can we learn from Indonesia's reform journey? What can we learn from INOVASI's eight-year experience of partnering with the Indonesian government? Is it a matter of being in the right place at the right time? Will the changes to curriculum, assessment, and teacher development really improve learning outcomes?

It has been my great privilege to lead INOVASI since August 2017. The two volumes of *Insights from INOVASI* reflect the hard work, dedication, and talents of an extraordinary team of professionals. The two volumes also reflect a true partnership, a collaboration between nations, and between like-minded officials, professionals, and practitioners from within and outside the government in Indonesia.

I hope you will find some insight in the pages of these volumes.

Mark Heyward
Program Director, INOVASI

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GLOSSARY

Abbreviations and Acronyms	Explanation
ACER	Australian Council for Educational Research
AKSI	Indonesia's National Assessment Survey
AKM	Minimum competency assessment *(Asesmen Kompetensi Minimum)*
APBD	local government budget *(Anggaran Pendapatan dan Belanja Daerah)*
ATP	scope & sequence / learning progressions *(alur tujuan pembelajaran)*
Bappenas	Ministry of National Development Planning
BGP	provincial teacher training centre *(balai guru penggerak)*
BBPMP/BPMP	local education quality assurance centre *(balai penjaminan mutu pendidikan)*
BSKAP	MoECRT's education standards, curriculum and assessment centre
COVID-19	2019 Novel Coronavirus
CSO	Civil Society Organisation
DAPODIK	MoECRT's basic education management information system
DFAT	Australian Department of Foreign Affairs and Trade
EMIS	Ministry of Religious Education's management information system
EoPO	End-of-Program Outcomes
EPP	Education Pilots and Partnerships unit

Abbreviations and Acronyms	Explanation
GEDSI	Gender, Equality, Disability and Social Inclusion
GTK	*Teachers and education personnel division*
IDR	Indonesian rupiah
INOVASI	Innovation for Indonesia's School Children (Australia-Indonesia partnership program
KKG	teachers' working group (*kelompok kerja guru)*
Kurikulum Merdeka	Indonesia's new curriculum (literally translated as the 'freedom curriculum')
Madrasah	Islamic schools
Merdeka Belajar	Indonesia's education reforms (literally translated as 'emancipated learning')
MERL	Monitoring, Evaluation, Research and Learning unit
MoECRT	Ministry of Education, Culture, Research and Technology (Indonesia)
MoRA	Ministry of Religious Affairs (Indonesia)
NTB	West Nusa Tenggara (Nusa Tenggara Barat)
NTT	East Nusa Tenggara (Nusa Tenggara Timur)
NU M'arif	Islamic organisation
OECD	Organization for Economic Cooperation and Development
OPD	Organisations for persons with disabilities
PBS	Student learning profile (*profil belajar siswa)*
PISA	Programme for International Student Assessment
PDMS	program data management system
PPG	Teachers' professional education programs

Abbreviations and Acronyms	Explanation
PMM	Ministry of Education Freedom to Teach platform (platform Merdeka Mengajar)
PUSBUK	Ministry of Education Book Centre.
Rapor Pendidikan	Education report and scorecard
Renstra	Strategic plan
RKAS/RKAM	School/madrasah action plan and budget
RPJMN	National medium term development plan
RPJMD	District medium term development plan
SIMPKB	Continuous Professional Development Management Information System.
STKIP	Teacher training college *(Sekolah Tinggi Keguruan dan Ilmu Pendidikan)*
TaRL	Teaching at the Right Level approach
TASS	Technical Assistance for Education System Strengthening (an Australia-Indonesia partnership program)
TIMS	Trends in International Mathematics and Science Study
TTI	Teacher training institute
UBT	Borneo Tarakan University
UMM	Muhammadiyah University of Malang
UMSIDA	Muhammadiyah University of Sidoarjo
UNESCO	The United Nations Educational, Scientific and Cultural Organization

CHAPTER I
INTRODUCTION

CHAPTER I : INTRODUCTION

Mark Heyward & Lynne Hill

Insights from INOVASI is a two-part series which analyses the Government of Indonesia's education reforms, their significance for teaching and learning; and how the Innovation for Indonesia's School Children (INOVASI) program contributed to these reforms.[1] The first volume in the series, Insights from INOVASI: Indonesia's twenty-year reform journey explores the trajectory of reform, commencing with Reformasi, the decentralisation of education management, and the first national education system law (Sisdiknas 2003), and culminating in the current transformational reform agenda known as *Merdeka Belajar* (emancipated learning). Through an historical perspective on Indonesian education reform, the first volume aims to identify what the *Merdeka Belajar* agenda distinctively contributes to the trajectory of education reform since decentralisation; and its implications for transforming teaching and learning.

This volume, INOVASI and the reform of Indonesian Education, explains how INOVASI contributed to policy improvement, take-up and implementation, both nationally and in its partner districts. The volume is particularly concerned with explaining how INOVASI's development approaches led to the extent of change that occurred during the program's eight years of implementation. These development approaches were Problem-Driven Iterative Adaptation

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[1] For the sake of brevity, except where the narrative refers specifically to TASS or INOVASI as separate programs, throughout this report, 'INOVASI' is taken to refer to both programs, Phase I and Phase II (2016-2023) of INOVASI; and TASS (2017-2020).

(PDIA) and Thinking and Working Politically (TWP). PDIA is a capability building approach to development assistance, developed out of the Harvard Kennedy School of Government. It is designed around collaborative exploration with stakeholders of systemic problems, and the iterative development of solutions that fit the local context. The approach is credited with leading to ownership of problems by decision makers and often a mind-set change leading to progressive reform in a sector. TWP has been defined as a development approach based on strong political analysis, appreciation of local context, close engagement with stakeholders and coalition building around improvement; and flexibility and adaptability in program design and implementation (Marquette 2018).

The aim of the volume is to share the learning on how the approaches came to have the effects they did. The intention is that these ways of working can be adopted more widely, both in the development community and among the education community in Indonesia, to keep up the momentum of effective policy development and implementation in the different contexts of reform.

The two volumes reference each other in their analyses of the development of reform. Volume 1 is particularly relevant reading for Volume 2 in its account of the *Merdeka Belajar* reforms, the lead up to the reforms, and the distinctive characteristics of *Merdeka Belajar,* which became the predominant focus of INOVASI in its second phase. Together the volumes build a case for policy continuity under future government administrations, and identify areas of policy and system strengthening that will support the sustainable implementation of these historic transformations of education.

The purpose of this introduction is to orient the reader to the context of the development themes discussed in succeeding chapters. The main part of the chapter sets the scene with a short 'biography' of each of INOVASI's two phases, to enable the reader to follow the analyses of contribution in the six chapters that follow.[2] It finishes by signposting the coverage of the policy areas with which INOVASI has been concerned, and explaining the flow of chapters in this volume.

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[2] The program is referred to as INOVASI when speaking of it generically and for the second phase of the program when it was integrated with TASS. TASS is identified separately when its specific characteristics and contribution are under discussion.

The chapter concludes by describing what INOVASI's contribution to reform means in the analyses of this volume, and why that contribution is particularly important. All programs seek to make a contribution to development; and INOVASI is certainly not the first to have influenced learning improvement. Chapter 2 indeed documents how INOVASI has built on an accumulated understanding of what works in classrooms and schools.[3]   So, what justifies attracting attention to INOVASI's contribution? That is what the conclusion to this introductory chapter seeks to answer.

The program

This part of the chapter describes the program in its three different phases: the Innovation for Indonesia's School Children (INOVASI) Phase 1, 2016-2020; then Technical Assistance for Education Systems Strengthening (TASS), 2017-2020; and finally the integration of INOVASI and TASS in INOVASI, Phase 2, 2020-2023.

INOVASI Phase 1

In 2014, The Australian Department of Foreign Affairs and Trade were working with large, systemic programs, with little flexibility and opportunity to understand contextual issues in policy implementation. There was no opportunity to trial and pilot approaches that could inform development policy in Indonesia This came from a realisation of the challenges in developing policies in a country as diverse and complex as Indonesia.

In June of the same year, the Australian Foreign Minister launched a new development policy Australian Aid: promoting prosperity, reducing poverty and enhancing stability (Commonwealth of Australia 2014). The policy made clear that there would be a shift from direct

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[3] INOVASI is a partnership with the Government of Indonesia, comprised of two, four-year phases. Phase I extended from 2016-to June 2020, and from 2017 ran in tandem with the program *Technical Assistance for Education System Strengthening* (TASS). With a design update in 2020 that included the integration of INOVASI and TASS, Phase II continues until the end of 2023. The program operates at national level with the Ministry of Education, Culture, Research and Technology and the Ministry of Religion as key partners and in 19 districts in the provinces of Kalimantan Utara, NTB, NTT and Jawa Timur.

financing of service delivery to ways of supporting the more effective use of Government of Indonesia resources and systems.

The design

INOVASI was designed in 2014; and planned as an eight-year initiative in two four-year phases. Through the program, DFAT hoped to build evidence of what works and what doesn't. This would be through collaboration with government in action-oriented research and pilots to answer the question 'what works to improve student learning outcomes in Indonesia?' (DFAT 2014). Three broad areas of investigation identified in the design brief were (i) quality of teaching in the classroom, (ii) quality of support for teachers, and (iii) learning for all (DFAT 2014).

The development approach specified in the design was 'Problem-driven iterative adaptation' —PDIA (Andrews et al. 2017). This approach and INOVASI's application of it, are discussed together with the Thinking and Working Politically approach in Chapter 3: Developing Capability. PDIA was intended to bring stakeholders together to identify problems and pilot local solutions and strategies for change; and to facilitate adoption, adaption and contextual scaling out of tested strategies. INOVASI was designed as a 'design and implement' program. The program required a highly flexible and adaptive approach (INOVASI 2016) to suit PDIA.

The main hypothesis drawn from PDIA in the design was "based on the idea that a context-specific capability building approach is necessary to improve student learning outcomes" (DFAT 2016:10). Through understanding the local context – both its challenges and opportunities, testing local solutions, and sharing evidence, it would help improve teaching and learning.

INOVASI's three end-of-program outcomes also emphasised stakeholder access to, and use of, a robust body of evidence on what works to improve student outcomes; and take-up at scale, of consequent change in policy and practice. Scaling included reaching out to non-target districts and provinces to promote adaptation and replication of tested strategies.

Phase I commenced in 2016 and ran until June 2020. The program worked with the Ministry of Education[4] and later, the Ministry of Religious Affairs. At the beginning of the program, INOVASI did not work closely with the Ministry of Religious Affairs, as the emphasis was on the local responsibilities under decentralisation of regions and districts, while he Ministry of Religious Affairs. remains a centralised system. In the second and third years of INOVASI, TASS worked with the Ministry of Religious Affairs. At the beginning of 2018, requests from local governments and NU Ma'arif resulted in a change of policy and during that year the Ministry of Religious Affairs became a part of the INOVASI program.

Phase 1 implementation

Figure 1 INOVASI districts in Phase 1
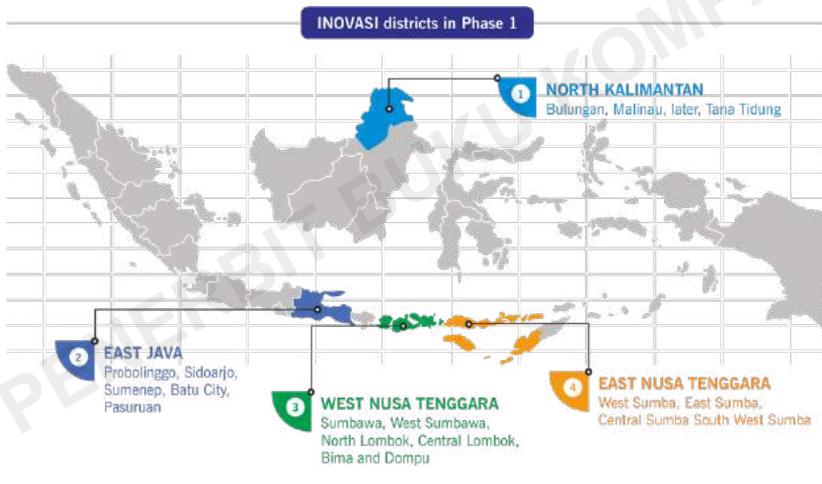
INOVASI worked in four provinces: West Nusa Tenggara (NTB), East Nusa Tenggara (NTT), North Kalimantan and East Java. Selection of partner provinces occurred in stages. NTB was selected and started first (in 2016), due to its strategic interest for Australia. The DFAT-Ministry

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[4] The ministry has changed its name several times during the twenty-year period which is the subject of the study, from Ministry of National Education, to Ministry of Education and Culture, to Ministry of Education and Culture, Research and Technology, to Ministry of Education, Culture, Research, Technology and Higher Education. For ease of reference, the term The Ministry of Education will be used for all references.

of Education national steering committee selected the remaining provinces. North Kalimantan was included as Indonesia's newest province, with few districts and little attention from donors. NTT, not originally proposed, was requested by the main government counterpart due to the motivation for reform that stakeholders in Sumba Island had shown in a prior program.[5] East Java joined in the second half of 2017. East Java provided the balance between INOVASI's remote and disadvantaged regions with more developed and politically significant regions. This province had been well served by donor programs in the past (including CLCC, MBE, LAPIS, DBE and PRIORITAS[6]) and it was hoped to build on good practices already identified in the province, and to take this 'positive deviance' as a starting point to improve learning outcomes in schools (INOVASI 2018b).

Within these provinces partner districts were selected based on commitment to reform and strong political leadership; and also on a range different characteristics of interest to government. There was a total of 17 partner districts (See Box A). The different starting times also affected the extent of piloting that occurred in each province. INOVASI began in NTB in 2016, in North Kalimantan and NTT in 2017 and in East Java in 2018.

The INOVASI Phase I workplan covered three key stages of implementation: understanding local challenges; generating evidence, and sharing knowledge. The first stage involved bringing together key stakeholders to develop agreements and a common understanding of the problems and challenges; and baseline evidence. Generating evidence included the main program tasks of piloting and research, accompanied by tight feedback loops, using monitoring and evaluation data to ensure that pilot and research activity findings were 'credible, timely and utilised' (DFAT 2014: 33). Sharing and communicating findings was the third key phase of the workplan. The findings from research and pilot activities were to be disseminated to different

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[5] DFAT and the European Union funded the Analytical and Capacity Development Partnership (ACDP) from 2010 to 2014. The USD 50 million facility had the task to 'promote education sector-wide policy research and dialogue', for more information, see https://www.dfat.gov.au/sites/default/files/2014-indonesia-acdp-mid-term-review.pdf

[6] Creating Learning Communities for Children (CLCC, UNESCO), Managing Basic Education (MBE; USAID), Decentralised Basic Education (DBE; USAID), Prioritising Reform, Innovation and Opportunities for Reaching Indonesia's Teachers, Administrators and Students (PRIORITAS, USAID)

audiences for different purposes. The audiences included national government, participating and non-participating districts and provinces, DFAT, and other private education service providers. (DFAT 2014).

The pilots. Finding out 'what works' and also what doesn't, began with research undertaken in pilot districts to obtain baseline evidence of student literacy and numeracy skills. (The choice of the early grades focus is explained in Chapter 2, What Works to Improve Learning.) The 'laboratory' for this experimental pilot approach was the classroom, the school, the teacher working groups and the district. The findings were to be the basis for exploring systemic barriers to improving teaching quality and teacher support at school and district level; particularly in respect of continuous professional development; as well as the effectiveness of district resourcing of teaching and learning. Under the broad investigative area of 'learning for all', INOVASI addressed three major cross-cutting issues – gender equality, social inclusion (disability, remoteness and ethnicity) and child protection (INOVASI 2020a) Consideration of these issues were built into the design, implementation and evaluation of all activities and programs.

While there were several strategies in INOVASI's approach to improving learning in the districts, piloting solutions to identified problems was predominant in the program's first phase. There were three rounds of school pilots over the four years of Phase I; a total of 74 locally contextualised pilots in schools and districts. The experience and results of each round contributed to the design of the next iteration. As described later in this volume, several strategies were identified that demonstrably improved learning. This included provision of appropriate reading materials (levelled readers and attractive storybooks), use of concrete aids to enhance numeracy learning, and introduction of diagnostic assessments, remedial reading programs, and 'reading camps' for differentiated literacy learning. Chapter 3: Developing Capabilities describes the lessons learnt and the triggers of this adaptive process and how they helped a contextually appropriate application of PDIA to emerge. Chapter 4: Teacher Development and Chapter 5: Reading books and literacy describes this progression of pilots for improving teaching and learning outcomes.

The evidence from these pilots was strengthened through a range of other research activities, either requested by partners or triggered by issues identified in the pilots. This evidence was leveraged through the program's communication strategy to support policy development by district and national governments and to 'broker exchanges of experience, skills and capability across the actor groups in the sector' (INOVASI 2020:10). A principal communication strategy was the *Temu* INOVASI, knowledge sharing events held at regular intervals at both national and provincial levels throughout Phase 1 to disseminate the results of pilots or studies among government stakeholders and help get issues on the policy table. In this way, INOVASI became a knowledge broker, connecting different actors within the system (INOVASI 2020). The evidence from the pilot experience became a catalyst for reform at the district, school and classroom levels. Senior officials in the Ministry of Education saw the INOVASI pilots as 'proof of concept' for the conduct of implementation of the *Merdeka Belajar* reforms, demonstrating how to support reform in teaching and learning (INOVASI 2020a).

The Partnerships. Building relationships and brokering partnerships was recognised in the Phase I design brief as critical for long term sustainability; and became a key strategy for INOVASI. During Phase 1 the program engaged 36 grant partners to provide services for education quality improvement. The range of partners included the national and subnational governments, schools and madrasah, the school and madrasah networks of Indonesia's two largest Islamic organisations, Muhammadiyah and NU Ma'arif, universities and research networks, non-governmental and civil society organisations and local communities. The partnership with the two Islamic organisations were particularly promising for scale-out. Between them, Muhammadiyah and Nahdlatul Ulama run 53,519 schools – around 53% of all private schools and madrasah.

Several of these partnerships implemented pilots focused on national policy issues of literacy, including school and community libraries, language transition approaches, numeracy and inclusion, in primary schools across 20 districts within the four INOVASI provinces. These pilots took place during the period 2017-2019 with timeframes of eight to fifteen months.

Those pilots that were successful were so to an outstanding degree, contributing value-add outside of INOVASI's partner schools and districts to government reforms at national and subnational level. They are integral to the story in all the policy chapters that follow. In 2020, the Ministry of Education launched its own partnership program *Program Organisasi Penggerak*, to an extent modelled on INOVASI's Phase 1 approach; developing models and champions of change, which can be scaled out in a locally-driven, national program (INOVASI 2020b).

Adaptive program management. A pre-requisite of an adaptive program is capacity to learn from implementation; with a premium put on the program functions of monitoring, data collection and topical research. INOVASI's approach to some of these functions was also adaptive. Because of the importance of evidence in the program, Phase 1 initially prioritised a randomised control trial (RCT) approach, where pilot schools' progress was measured against non-pilot schools in the district. In mid-2017, INOVASI increased its focus on monitoring and evaluation more appropriate to PDIA, as local solutions and iterative approaches to local problems were not reflected in the standardizing approaches of an RCT. PDIA required a fast feedback loop not possible with an RCT approach.

Robust monitoring data provided for annual 'strategy testing' and for the structured reflection required by adaptive programs, to check if strategies and assumptions remained sound against new insights and any shifts in the political or local contexts (DFAT 2016: 8). INOVASI's research program included baseline and endline data collection from partner schools, and a qualitative data collection to capture the changes in performance related to specific pilot initiatives. Chapter 5: Reading books and literacy, and Chapter 6: Disability illustrate the powerful dynamics of this process.

TASS 2017-2020

The Technical Assistance for Education System Strengthening Indonesia (TASS) program began as a three-year strategic investment in better state capability. It sought to tackle policy, political and institutional constraints to improved learning for all (DFAT 2019) and

support efforts to 'nudge' the sector towards improved policy and practice.

TASS was designed as a 'facility', a type of flexible program where objectives are agreed upon at the design stage of the program, but activities are agreed upon during implementation, often through program governance mechanisms. All TASS activities were required to have a 'line-of-sight' to at least one of the end-of-facility outcomes (EOFOs). These were similar to INOVASI's intended end-of-program outcomes (EOPOs) in specifying application of the policies, systems, processes and programs needed to affect education reform (EOFO 1); and bridge the divide between policy and implementation (EOFO2). The core focus was the delivery of short-term, targeted and high-quality technical assistance.

TASS was governed by a joint INOVASI-TASS National Steering Committee to promote coordination and exchange between the participating decision makers. TASS also worked with the same Ministries and shared some staff.

The wholly national focus of the TASS program was deliberate, to offer strategic advice and support to the national government on education policy, planning, programming and evaluation, drawing on the subnational focus of programs such as INOVASI and the DFAT-UNICEF partnership in the Papua provinces to inform this advice and support.

Government of Indonesia partners would request support from the program, from where an activity was designed and implemented in a collaborative approach. Most activities were designed as short inputs to help government to progress its reforms, to move from 'point A' to 'point B' or beyond. During the program's inception period much work was done to identify the findings and lessons from the literature on 'Knowledge to Policy', and the emerging 'doing development differently' paradigms such as Thinking and Working Politically. The purpose of these reviews was to avoid common weaknesses of 'facilities': that in being highly flexible and responsive, their disparate activities can fail to collectively contribute to achieving the facility's objective. This informed the program's approach to 'screening' requests for support from government against a TWP-informed rubric. Lessons

on 'knowledge to policy' also informed the program's approach to 'navigating' or 'nudging' knowledge and evidence through the policy cycle, with the program playing a role in, not only generating and sharing knowledge and evidence, but supporting policy makers to use and apply it in policy development, implementation and evaluation. Ch 3: Developing Capability describes TASS' way of working and thinking politically in policy support.

With time, activities became increasingly strategic: the program was able to leverage the work of different but related activities for greater value for money and impact. Key areas of program advice to government included national assessment (advice on Indonesia's National Assessment Survey, at the time known as AKSI), school quality assurance, teacher professional standards, and research and analytical inputs into preparation for a revision to the National Education Law. A 2017-18 review of the education quality assurance system fed into later support to revise the government's approach to school accreditation. As well as supporting the Ministry of National Development Planning *(Bappenas)* coordinate the 2020-24 National Medium-Term Development (RPJMN) Background Study, TASS supplied the analyses on the status of all the above policy areas.

The integration of INOVASI and TASS in INOVASI

INOVASI was designed with two phases; the direction to be taken in the second phase being contingent on a strategic program review towards the end of the first phase. Taking into account findings of that 2019 review, DFAT saw the value of bringing TASS and INOVASI together in the second phase to bridge the divide between policy and implementation more effectively, to improve integration between national and subnational government systems and policies, and to provide more flexibility in resourcing and pursuing opportunities with the greatest potential to transform learning outcomes (DFAT 2020a: 2). The INOVASI Phase II Design Update (2020- 2023) created a single design for INOVASI and TASS. In what follows, the program will be referred to as INOVASI. The most effective platforms of both programs were retained.

The Phase II design update set the technical direction, confirming that INOVASI would remain focused on literacy, numeracy and inclusion;

and the 'continuation yet sharpening of TASS's broader mandate to support national ministries and agencies in areas of systems and policy reform that contribute to better teaching in the classroom, better support for teachers, and better learning for all' (INOVASI 2022a :18).

Continuities and shifts in focus

The focus on primary literacy, numeracy and inclusion was continued; and the three areas of (i) the quality of teaching in the classroom, (ii) the quality of support for teachers, and (iii) learning for all. So, also, were the Thinking and Working Politically (TWP) approach of informing and nudging policy at the national level and PDIA at the subnational level. Adaptive programming principles were reflected in the program logic (INOVASI 2022b:17). TASS' original design outcomes—with their focus on bridging the policy implementation gap with application of sustainable policies and practices supportive of students - also influenced the original end-of-program outcomes of INOVASI Phase II. All the delivery methods to facilitate outcomes from both programs seen as successful in TASS and INOVASI Phase 1 were continued — responsive research and analysis, expert technical advice and support; strategic communications for knowledge sharing—and piloting. INOVASI would continue with supporting local problem identification and solutions, using evidenced-informed policy and practice approaches. However, in piloting the approach, INOVASI would progress to supporting the government pilot and trial new ideas.

There were some important shifts in emphasis in the update. A key influence on these shifts was positioning the program well to respond to the Government of Indonesia' progress on its reform agenda. Another was the increasing prioritisation of gender equality and inclusion in the aid program, which needed to be reflected in the program design update.

To facilitate close partnership with the national government in strategic policy support, TASS' advisory assets were channelled into the Systems and Policy Work Unit within the unified program. The Systems and Policy unit was also to consolidate and strengthen coalitions for change within the Government of Indonesia and promote alignment of national and subnational systems and policies for improved teaching and learning (DFAT 2020:4).

Equality, equity and inclusion became much more prominent in the program; in fact, became a lens through which the program would address its work to improve learning outcomes through policy, systems and practice (DFAT 2020: 10). This meant a twin-track approach: a GEDSI perspective in all activities plus targeted GEDSI objectives and activities.

There was a major emphasis on mechanisms for sustainability in the update. At this stage it was envisaged that this would be the final phase of INOVASI support in this form. INOVASI would move from the designer and implementor role to that of brokering stronger partnerships between the Government of Indonesia, the private sector and civil society. The aims here were to build coalitions supporting locally-led reform and leverage others' resources to generate a more sustainable ecosystem for education reform. Greater cost sharing was expected: for pilots at all levels; from implementation partnerships at both national and sub- national levels; and at national level for workshops, events and online publications. The co-design and implementation of pilot interventions and studies at national level was expected to provide greater ownership for partners, leading to improved chances of sustainability and scale out.   Phase II sought to expand this idea to broker partnerships and coalitions between the government and non-government sector (DFAT 2020 :15).

Implementation and changes in context

INOVASI Phase II commenced in the grip of the COVID-19 pandemic. Over 530,000 schools in Indonesia were closed to more than 68 million school children intermittently over nearly two years. Projections of learning loss and increases in exclusion and inequality as a result of the prolonged disruption required drastic action to support learning for all students as a part of recovery (Yarrow et.al 2020).

At the same time, the Government of Indonesia was launching a comprehensive reform agenda for basic education *(Merdeka Belajar)* (See Vol 1, Chapter 5). This included a new curriculum (*Kurikulum Merdeka)* (see Vol. 2, Chapter 6: Curriculum and Assessment) a new national assessment system and new approaches to teacher training and systems to support the changes. INOVASI was very well placed to

provide support, in the areas of policy, technical support and evidence from the field to support these priorities.

These two developments shaped INOVASI's priorities during Phase 2. In spite of the injunction to move on from implementation, partner districts had an urgent need for INOVASI's support to help them solve the problem of maintaining learning during school closure; support teachers to master the new essential skills focus of the Emergency Curriculum issued during the COVID-19 pandemic; and with schools re-opening, to identify what learning was missing and strategise how to close the gaps.

Simultaneously, as the *Merdeka Belajar* reforms unfolded, INOVASI's priority was to ensure that its extensive experience of what worked and didn't in classrooms and policy would help guide the government in its approach to implementation of the reforms. This priority entailed close engagement with policy makers, constant feedback and exposure of national teams to effective facilitation of change at district level; and comprehensive support for teachers through the production of accessible teacher guidance, professional development and resources for their own upskilling, and the planning and teaching of the new *Kurikulum Merdeka*.

Eighteen months into Phase II, INOVASI's updated Theory of Change was reframed, in recognition of the relevance of this new context to achieving the program goal. End-of-program outcomes became:
1. National and subnational actors implement education systems and policies to support learning recovery and the achievement of foundational skills for all children.
2. Education practitioners (teachers, principals, school supervisors) demonstrate practices that support inclusive learning recovery and the achievement of foundational skills for all children. (INOVASI 2021a).

Eight program areas were identified to support a more integrated cross-cutting approach in achieving these outcomes; (1) curriculum and assessment; (2) literacy, books and language transition; (3) numeracy; (4) character education and religious moderation; (5) teacher quality improvement; (6) disability inclusion; (7) gender equity, and (8) cross-cutting and planning support (INOVASI 2022a: 16). All program areas

were strategic in supporting the education reforms, and INOVASI continued to build on the evidence and practice from Phase 1, with a more motivated and engaged Government of Indonesia.

The policy focus

INOVASI's Phase 1 design document stated the program's development hypothesis was based on the idea that context-specific capability building approaches were necessary to improve learning outcomes. While there were several adaptations and iterations over the eight-year period of the program, the importance of context-specific capability remained very relevant.

The program began in Phase 1 with a subnational emphasis; to find out what works in schools and districts to improve learning outcomes for all students. INOVASI used this phase to collect data through context-specific pilot programs, research, monitoring and evaluation. The evidence produced identified the need for addressing foundational skill development in the key areas of literacy, numeracy and character education. District education offices made use of the data to identify and address weaknesses in the teaching of foundational skills while INOVASI worked to escalate the findings to the national level.

TASS commenced in 2017 with the intent of supporting government to use knowledge and evidence for an improved national education policy process. By the end of 2019, INOVASI had completed Phase 1 and had generated evidence, research and materials for improved learning outcomes. TASS was the obvious link between sharing subnational findings with national government partners and, in 2020, at the commencement of Phase II, it became part of INOVASI.

In the second phase of INOVASI, the combination of subnational partners providing evidence in contextual situations, and the national government receiving and acting on the findings, created the greatest change space for real education reform. Informed national policy change would affect the education sector across Indonesia. In this phase, the national government requested INOVASI's support with alternative schooling options during the COVID-19 pandemic and support to address the resulting learning loss. At the same time, the government's urgent need to ensure that its new education reforms

gained traction provided a real opportunity for INOVASI to provide support for education reform policy, implementation and communication.

This introductory chapter has provided an overview of INOVASI's trajectory in an adaptive and changing education space over the period of eight years. It has described the context, ways of working and the responsive changes which occurred over the life of the program. It sets the scene for further analysis of development approaches in Chapter 3, and provides some context for the remaining chapters investigating problem-driven approaches at both national and subnational levels.

The next chapter, Chapter 2, introduces the question, what works to improve children's learning? The chapter includes a review of the literature on learning for all, and applications in the Indonesian context, including INOVASI. Chapter 3 analyses the development approaches adopted by INOVASI to contribute to policy development. The purpose of both these chapters is to frame the chapters that follow, their focus on the policy areas of curriculum, assessment, teacher development, book supply, disability inclusion, and gender equality, and their exploration of how INOVASI worked.

These chapters each explore the problem-based, responsive, and politically informed approach that was the basis of partnership between INOVASI and government in the key domains of the reform. Chapter 4 examines teacher professional development, particularly for teaching literacy and numeracy. Chapter 5 explores the supply of children's books for reading; and Chapter 6 focuses on curriculum and assessment. The following two chapters discuss the theme of equity: Chapter 7 investigates policy on access to learning for children with a disability, and Chapter 8 developments in gender equity in the sector. Finally, Chapter 9 draws conclusions on the effectiveness of INOVASI's development approaches, revisiting the first volume of the study and suggesting areas for ongoing support to the Government of Indonesia in its efforts to reform education.

Conclusions

As can be seen from the 'biographies' of INOVASI and TASS presented in this introductory chapter, the development problem that both

programs sought particularly to address was the problem of policy implementation—policy in its widest sense of the "continuum of processes, actions and decision-making around the realisation of an objective" (Jones, H., 2011:1). What happens at the point of implementation is the critical test of good policy. The intent of INOVASI was to find out at the interface of teaching and learning what made learning outcomes so low —and conversely, what could work to improve learning outcomes —bring this to policy and thereby improve it. The PDIA and TWP methodologies of the program were selected at design because they seemed most apt for this kind of probing with stakeholders; and for guiding the programs in the kind of interactions with stakeholders that could lead to them taking on board findings from context that they had never considered before. Chapter 3 describes the PDIA and TWP principles and strategies that have this effect; and the following chapters in this volume illustrate how they had this effect in their particular policy area.

A summary phrase for this effect is 'bringing about change'. The kind of contribution that INOVASI has made is being able to bring about change that affects the quality of implementation. The theme of the volume — the theme of INOVASI — is the nature of the interactions that result in change occurring. Without being a spoiler for the chapters that follow, those interactions are around the work of developing stakeholder ownership of the problem, and its resolution, making it matter to leadership and decision makers at every level, securing acceptance and authorisation by leaders, and building the acceptance and capability of stakeholders and practitioners for dynamically sustaining these processes.

The kind of change brought about varies with the problem; but all the big stories featured in the following chapters share two characteristics. First, the change is very consequential for the beneficiaries of it. Second, in all cases INOVASI was able to demonstrate to government what that positive change looked like and how it came about.

Early, mind-set change proved very generative of further change, as noted in the *Guru Baik* story in Chapter 3. The impact on policy or practice when the significance of the evidence is registered for the first time has been a recurring experience in the program. Perhaps it is most notable in the impact of literacy outcomes data on district officials, as

narrated in Chapter 4: Teacher Professional Development; or the book deprivation of children in remote areas, a story from Chapter 5. Evidence also shows its potential as an entry point for shifting discriminatory gender norms, in Chapter 8. A very consequential change to the new national curriculum was based on monitoring feedback and expert review; changes to the pace of the maths curriculum, as exemplified in Chapter 6. Extensive change occurred in the capability of local education authorities across a range of institutional supports to teachers and students. An outstanding example of capability-led change is that of solutions to providing for the inclusion of children with a disability, as told in Chapter 7. There is change in the composition of players in the scene as in the entry of teacher training institutions and community organisations into literacy support. Finally, there is the change arising from the dynamic of change in a policy space; change to the potential scale of those affected by reforms.

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CHAPTER II

WHAT WORKS TO IMPROVE LEARNING IN INDONESIA?

CHAPTER II: WHAT WORKS TO IMPROVE LEARNING IN INDONESIA ?

Mark Heyward, Robert Cannon & Laetitia Lemaistre

Abstract

This chapter provides an overview of the evidence that informed INOVASI's ongoing choice of policy areas to work in to improve learning outcomes in Indonesia. The discussion commences with an overview of the relevant evidence from international and Indonesian research literature. The Indonesian context influenced the selection of this evidence, particularly in regard to the emergence of the new paradigm for teaching and learning in the current *Merdeka Belajar* reforms. The chapter then considers evidence specific to each of the five policy areas of INOVASI's work. At this point the discussion also includes evidence generated by INOVASI's own activities. The aims of the chapter are to make the reader aware of the evidence rationale for the program's approaches to the policy areas discussed in the following chapters; and to highlight those features of 'what works' that will benefit the continued development and implementation of Indonesia's current reforms.

Introduction

In its endeavours to assist government to improve learning outcomes, INOVASI has focussed on five policy areas: curriculum, assessment, teacher development, book supply and inclusion. INOVASI is an adaptive program, but it did not start out its journey with a blank slate

as to what works to improve learning outcomes. The history of what has worked and not worked in the Indonesian context influenced the choice of which lessons from international literature were regarded as most relevant. INOVASI's own problem-based approach also contributed to the choice of policy areas, as evidence from early activity brought to light policy issues of unanticipated importance; and as the Government of Indonesia's new paradigm of teaching and learning, *Merdeka Belajar*, began to emerge during the program, influencing INOVASI's direction. This chapter provides a review of 'what works', relevant to this dynamic mix of influences, to explain the program's choice of policy areas, and the strategies to support policy improvement in each of them, which are recounted in the following chapters. Throughout, it draws attention to initiatives and adaptations that appear to offer effective solutions to past problems, and that need to be supported and sustained as the current reforms make their way through the system.

The problem

As described in first volume of this series, the Government of Indonesia has adopted policies to decentralize educational administration, to introduce school-based management and encourage active learning approaches in classrooms. In the past two decades, the country has made substantial gains in basic education. Government spending has doubled and, by 2018, 93 per cent of 6-14-year-old children were participating in basic education and 78 per cent of 15–19-year-olds were in secondary schooling (OECD 2021). However, while this spending has improved educational access, it has yet to improve learning outcomes.

Schools were closed on and off in Indonesia for over 18 months during the COVID-19 pandemic, which commenced in March 2020. While school closures certainly exacerbated the problem (Spink et al. 2022), the root causes of poor learning outcomes remain for most students. Classroom practice in most schools has not changed much, and Indonesia's results on international tests are worrying.

One measure of learning outcomes is the Program for International Student Assessment (PISA) test conducted by the Organization for Economic Cooperation and Development (OECD) every three years. PISA tests the performance of 15-year-old students in reading,

mathematics, and science, and is an indicator of the education system's overall performance against international benchmarks. Student performance on PISA tests relies on literacy, numeracy and higher-order thinking skills, for which the foundations are developed in the early grades and continue to develop across the primary and lower secondary years. Indonesia, to its credit, has participated in PISA, which is conducted every three years, since 2001.

Despite the increased spending on education, Indonesia's PISA scores have essentially remained the same for twenty years: no substantial decline but, equally, no real improvement since PISA tests began in 2000. Indonesia's performance in the 2018 PISA remained among the lowest level scoring of the 79 participating countries (Schleicher 2019). According to the OECD (2018) these results should be seen in the context of a substantial increase in enrolments. In 2001, the PISA sample covered only 46% of 15-year-olds in Indonesia; in 2018, 85% of 15-year-olds were covered (OECD 2016). Increased enrolments tend to mean a greater proportion of children from poor, less educated, and more remote areas. Given this, maintaining its PISA scores over these years, means Indonesia has in fact raised the overall quality of its education system (OECD 2018).

Nonetheless, according to a World Bank analysis of 2015 PISA results, 55 per cent of the 15-year-olds who took the test in Indonesia were 'functionally illiterate', meaning they can read a text but cannot answer questions related to it (Diop and Gil Sander 2018). This compares to less than 10 per cent of the same age group in Vietnam, another middle-income country. Indonesia's performance in an OECD study from 2019 demonstrated that, while the OECD average is 77 per cent of learners performing at a minimum level of proficiency or higher in reading (at OECD's level 2), only 30 per cent of Indonesian students scored at level two proficiency. Less than one per cent of Indonesian students scored at the highest level of PISA's reading test (levels 5 and 6). In mathematics, the OECD average is 76 per cent at level 2 proficiency or higher, whereas in Indonesia only 28 per cent of students scored at level 2 proficiency or higher. Only one per cent of Indonesian students scored at the highest levels (5 or 6) in mathematics (OECD 2019). At these levels, students can comprehend lengthy texts, deal with concepts that are abstract or counterintuitive, and establish distinctions between fact

and opinion, based on implicit cues pertaining to the content or source of the information. In 20 education systems, including those of 15 OECD countries, more than 10 per cent of 15-year-old students scored at these levels (OECD 2018: 2).

There is evidence of a significant gap between learner performance in numeracy tests and what is expected of them in the 2013 national curriculum for mathematics (Beatty et al. 2018; Sukoco et al. 2023). Students learn little in mathematics as they continue to progress through the different grades of the national education system; secondary school graduates struggle with primary school-level mathematics; and the learning attainment of student cohorts in Indonesia has decreased over time (Beatty et al. 2018: 1). This low rate of learning occurs throughout Indonesia: analysis of three rounds of the Indonesian Family Life Survey (IFLS) data demonstrates that, despite increased school enrolment and attainment, there has been almost no improvement in basic numeracy across Indonesia. In fact, numeracy learning levels had even decreased between the 2014 IFLS sample, and samples taken in 2000 and 2017 (Beatty et al. 2018, 29; Beatty et al. 2021).

As Lant Pritchett memorably put it in the title of his book, 'Schooling ain't learning', the experience of the last two decades demonstrates that improving children's access to school is not enough to improve learning (Pritchett 2013). Which leads us to the question: what does work to improve children's learning outcomes? This is the stubborn problem of education. In this chapter, we explore some answers to that question. In particular, we focus on learning outcomes in the crucial foundational skills of literacy and numeracy.

What works to improve learning outcomes?

There are at least two ways of responding to the question, what works to improve learning outcomes? The first is to identify the classroom practices that work – what teachers teach and how they teach it. The second is to identify the systems and policies that create an environment in which good teaching and learning takes place. We address both. The key to improving learning outcomes is to improve what takes place in the classroom. Achieving this at scale requires the

system-level answers which are pertinent to Indonesia's current reform agenda.

What works in the classroom?

While there is much we don't yet know, an emerging consensus in the international literature points to some key drivers of improved learning performance. We know that children need basic, foundational skills in order to learn across the curriculum, and across the grades of schooling. Without these basic skills, learning is not possible. These foundational skills are literacy, numeracy and basic character-related skills of thinking, communication, and social interaction.

Learning outcomes in literacy improve when children are given the opportunity for sequenced phonics-based learning - the 'nuts and bolts' of reading and writing in early grades. At the same time, children need exposure to stories, to books and reading material appropriate to their ability and interest. This is essential to developing comprehension - the purpose and meaning of literacy (Fearnley-Sander 2020). Listening, reading, speaking, and writing are critical literacy skills for building reading proficiency, and are essential components of a balanced literacy program.

Key foundational mathematical concepts include number, measurement, and probability for developing mathematical thinking (Fearnley-Sander 2021). Numeracy outcomes, for example, improve when children are given a solid understanding of number, using concrete aids, before advancing to abstract computations.

To achieve the improved learning outcomes associated with PISA, children need to develop a 'growth mindset' that associates success with resilience in learning. They also need to acquire the higher order thinking skills and 21st Century skills associated in Indonesia with character education (Chen et al. 2017). That is, critical thinking, problem solving, creativity, communication, collaboration, curiosity, initiative, perseverance or 'grit', adaptability, leadership, social and cultural awareness (Dede 2009; Fadel 2008).

For all children to achieve their potential, teaching must be adapted to the ability and readiness of each individual child. This means class-based formative (or diagnostic) assessment and differentiated learning (sometimes referred to as 'teaching at the right level' or TaRL). Used appropriately, feedback from formative assessments has been shown to have one of the strongest effects on student learning (Hattie 2003). Standardized assessment systems, and the one-size-fits-all approach of the past has not allowed for this. Moreover, for all children to succeed – and to lift the overall system performance - teachers need strategies to include everyone: children with disabilities, girls and boys, children in poor and remote communities, and children starting school without fluency in the language of instruction.

The elements associated with effective teaching and learning of foundational skills have largely been missing in Indonesian classrooms. Indonesia's curricula have ignored both the need to teach reading skills explicitly in a logically sequenced way, and the need for children to practice their reading skills and develop thinking skills along with a reading habit, through exposure to stories and engaging reading books (Fearnley- Sander 2020). In mathematics, Indonesia's national curricula have, until recently, largely ignored the need for concrete learning: learning progressions have been too fast and too abstract (Pritchett and Beatty 2015; Van der Heijden 2020).

Changes are needed for Indonesia to achieve the aspirations of its current medium-term development plan (*Rencana Pembangunan Jangka Menengah Nasional*, or RPJMN) for higher quality and more competitive human resources *('sumber daya manusia berkualitas dan berdaya saing')*, and for this to be reflected in higher PISA scores. Indonesia's standard approach assumes a culture of knowledge transmission and relies heavily on rote learning and standardized tests. The traditional, didactic, textbook driven approach to curriculum and teaching to date has failed to produce the outcomes required.

What works in education systems?

One way of answering the question of what works at system level is to look for the factors associated with successful systems. Why is it that some school systems consistently perform better and improve faster

than others? McKinsey and Company did this in their landmark studies, How the world's best-performing school systems come out on top (Barber and Mourshed 2007), and How the worlds most improved school systems keep getting better (Barber, Chijioke, and Mourshed 2010).

The first of these studies identified three things that it proposed matter most: (1) getting the right people to become teachers, (2) developing them into effective instructors, and (3) ensuring that the system is able to deliver the best possible instruction for every child. These factors seemed to hold regardless of culture and national context (Barber and Mourshed 2007).

The second McKinsey study identified six interventions as common to all stages of system improvement, from poor to excellent performance: (1) building the instructional skills of teachers and management skills of principals, (2) assessing students, (3) improving data systems, (4) facilitating improvement through the introduction of policy documents and education laws, (5) revising standards and curriculum, and (6) ensuring an appropriate reward and remuneration structure for teachers and principals (Barber, Chijioke, and Mourshed 2010). Importantly, the study also found substantial variation in how systems implement these interventions, the sequence, timing, and rollout. There is no 'silver bullet', no 'one-size-fits-all' approach to reform implementation. Reform can be mandated, in a top-down way, or it can be a matter of facilitating stakeholders to adopt reforming practices.

Pertinent to Indonesia's current reform journey is the finding that leadership is critical – and that effective leaders take advantage of changed circumstances to 'ignite reforms.' Across all the systems studied, one or more of three circumstances produced the conditions that triggered reform: a socioeconomic crisis; a high profile, critical report of system performance; or a change in leadership (Barber, Chijioke, and Mourshed 2010). As described in the first volume of this series, the coronavirus pandemic coincided in Indonesia with appointment of a progressive minister to create fertile ground for reform.

A more recent study of top-performing school systems based on OECD research on PISA outcomes identified the following features of

successful systems: (1) a shift from administrative control and accountability to professional forms of work organisation that enable learning at all levels of education system; (2) a culture of collaboration and strong networks of innovation enabling teachers and school leaders within and beyond their school to improve quality teaching and student outcomes; (3) ambitious goals and clarity about what students should be able to do at each stage, with support to enable school leaders and teachers to achieve these goals; and (4) encouraging teachers to be innovative, to improve their own performance and that of their colleagues, and to pursue professional development that leads to better practice against professional standards (Schleicher 2018).

While the McKinsey and OECD studies included systems in both developed and developing nations, other reviews have identified three types of programs that work to improve learning outcomes, specifically in developing country systems: (1) teaching and learning interventions, (2) repeated cycles of professional development, and (3) improving accountability (Evans and Popova, 2016). A synthesis of research that informed the current Indonesian reforms concluded that focusing on improving the effectiveness of teaching, curriculum, materials, new technology, and the teaching workforce through better management practices and professional development, all had a positive impact (Snilstveit et al. 2016). In general, a combination of different approaches was found likely to be most effective (Masino and Niño-Zarazúa 2016).

The influence of context on what works

This brief overview of what works, at system level, to improve learning outcomes suggests a broad consensus and offers a menu of technocratic interventions. But it does not fully answer the question. In order to better understand 'what works' we now turn to the question of what has not worked, internationally and in the Indonesian context. This takes us into a deeper consideration of how systems work.

Across the world, developing countries are spending more and more on education. Enrolments have increased dramatically in the last twenty years. Children attend school in far greater numbers and stay far longer than previously (Pritchett 2013). But, while these are necessary conditions for improving learning outcomes, they are not sufficient.

Some countries, such as Vietnam, have massively expanded enrolments and length of time in school ('grade attainment'), and increased learning outcomes significantly over time. Some countries, such as Indonesia, have massively expanded grade attainment but without significant increase in learning outcomes — so that cohort education progress has been much smaller than expected. Some countries, such as Zambia, made substantial (but not as large) progress in expanding grade attainment but along a quite flat or sharply declining learning profile (Pritchett 2023).

Perhaps the key message is that just increasing spending on education without changing the fundamentals, is unlikely to have much impact on improving learning outcomes. On the other hand, interventions that focus on better pedagogy (especially providing foundational literacy and numeracy skills to the millions of learners who are falling behind the pace of curriculum), and on improved governance of the education system (especially teacher performance and accountability) are likely to yield considerably greater returns on increased spending (Glewwe and Muralidharan 2016 p.735).

Why is it that Indonesia's education system as it has been operating over the last decades has not already identified, designed and implemented effective interventions? As described in the first volume, Indonesia has attempted over the last twenty years to improve learning outcomes through decentralizing education administration, improving teacher pay and conditions, curriculum reform, teacher qualifications, and introducing active learning, school-based management and community participation – but learning outcomes remain stubbornly low. Spending on education in Indonesia has declined in real terms over recent years, and, despite a substantial increase in spending (including on teacher salaries and benefits) it is still relatively low compared to other countries in the region.

Since the 1970s, the standard approach to professional development of teachers already in service in Indonesia has been a top-down, one-size-fits-all approach. This is generally true of both government-led programs and donor-supported programs. Programs have typically been designed by experts, based on international 'best practice', and cascaded down to provinces, districts, and school clusters. The

expectation is that this 'best practice' will be adopted in schools, and then scaled out to others. Heyward (2019) argues that this top-down, best practice approach may be the reason that the results have been disappointing, that many international projects have failed to produce sustained improvements, and that many government reform policies have at best only been partially implemented.

One answer to this problem of how to implement and sustain reform that INOVASI has been influenced by may lie in the concept of Triple A (Andrews, Pritchett and Woolcott 2017). The Triple A principle suggests that there are three main conditions for successful change: authorization, ability, and acceptance. A space for change exists where these three intersect. (See Chapter 3 for further discussion of this principle.) Previous reform efforts in Indonesia have focused mainly on the first two. Governments issue policies, such as a new curriculum, and support implementation with top-down cascade training programs. These approaches have often failed to result in substantial or sustained change due to the policies being ill-informed and not appropriate to all contexts (for example an inflexible and one-size-fits-all curriculum), and implementation efforts being inadequate (for example, poorly designed training delivered by poorly trained trainers, and ignoring the different contexts and capacities across Indonesia's districts).

Guthrie (2018) and others (Crossley 2009; Hallinger 2005; Phillips and Ochs 2004) suggest that foreign solutions may not always be suited to the diverse contexts of countries like Indonesia. In the most comprehensive study of classroom teaching reform ever conducted in Indonesia, Ragatz and colleagues (2015) found that one of the main reasons active learning approaches were not sustained is that they conflicted with the cultural beliefs and practices of Indonesian teachers. Beliefs include assumptions about how students learn, how to teach, the nature of the subject matter, and the teacher's expectations for their students. Teachers are least effective when imported practices are not aligned with their knowledge and their beliefs. Often, the space for change is insufficient due to a lack of acceptance of the reforms, as well as a lack of ability (two of the three As in the Triple A framework). For teachers and local administrators to implement and sustain reforms, they need to own the problem, and own the solution. Policies and practices derived from international research and experience, need to

be adapted to the local context, to the understandings, abilities and cultural values of teachers and others, to the political and economic realities in which they work.

INOVASI's five domains of policy and practice

In line with the above conclusions about what works to improve learning outcomes at classroom and system level, and drawing on international research over eight years, the global program, Research on Improving Systems of Education (RISE), identified five actions that education systems can take to chart a path that offers learning for all: (1) commit to universal, foundational early learning, (2) measure learning regularly, reliably and relevantly, (3) align systems around learning commitments, (4) support teaching, and (5) adapt what you adopt as you implement (RISE 2023).

INOVASI was designed and implemented roughly in parallel with RISE. While somewhat different, INOVASI's focus and approach align well with the RISE findings. As an adaptive, flexible program, the focus of activity evolved in its initial years, eventually settling on five domains, or areas of policy focus. This choice of focus reflected the consensus at the time around what works to improve learning outcomes; opportunities and entry points for change in Indonesia; and what the evidence of pilots: which solutions to identified problems made a difference to teaching and learning.

These five domains are: curriculum, assessment, teacher development, book supply, and inclusion (gender equality, disability and social inclusion). To improve learning outcomes, Indonesia needs better trained teachers, teaching a more focused and better constructed curriculum, which is targeted to individual needs determined by better assessment tools and systems. Children need more appropriate resources, books and reading materials, and teachers need the policies, skills and understanding to ensure that all children are included in the learning process. All of this requires changes in practice, supported by changes in the systems and policies which support that practice change. Ultimately, teachers need the technical ability to change their practice, they need the political authorization to do so, and they need to own and accept the need for change - they need to believe that children can learn,

that outcomes can be improved, and that the changes in practice will achieve that.

As illustrated in the preceding discussion, the first three of these domains - curriculum, assessment, and teacher development - are consistently cited in the literature as necessary to system improvement. Book supply and inclusion emerged as priorities through INOVASI's own problem focussed investigations.

Using a flexible approach, in the program's early years it became apparent that there was potential to improve learning outcomes through better provision of books. Unlike some other Asian cultures, Indonesia does not have a strong tradition of reading that extends into people's private lives and across levels of society. At the same time, over the last decade, a grassroots literacy movement coincided with a shift in government policy and national efforts to create a reading culture. What was missing was the books. Evidence from international studies provides a compelling case (for early years as well as a broader range of ages) for the effectiveness of book provision for improving literacy and reading outcomes. Children cannot learn to read without reading material, and the most effective reading material is appropriately levelled and engaging children's books (Banerjee et al. 2016; Abeberese 2011; World Bank 2019a).

The fifth domain, inclusion, reflects an awareness of the extraordinary diversity of Indonesia and the disparity in educational achievement between different groups within Indonesian society: girls and boys, children with a disability, children with different language backgrounds and children living in poverty and in remote regions. Indonesia's current reformist government recognizes the need to improve the inclusivity of its education system, both from a fairness point of view and as a means of lifting overall system performance.

These five domains are not the only areas in which reforms could improve learning outcomes. INOVASI could have focused on other domains, such as community participation and school leadership. INOVASI chose to focus on the foundational skills of literacy and numeracy, as the best point of leverage to improve overall system performance. These are the areas in which INOVASI, working with government and non-government partners, gained most traction.

Each of these five domains is discussed briefly below with reference to the Indonesian experience, and international and Indonesian research, including from INOVASI.

Curriculum

To support improved learning outcomes, curriculum should focus on core skills, it should be paced according to the dictates of children's learning needs, it should be flexible enough for teachers to tailor the content and process to the needs of individual children, and it should avoid overcrowding with too much content.

Curriculum is a fundamental policy area, pivotal to strengthening children's learning outcomes, including in the foundational skills of literacy and numeracy. As observed by Schleicher (2020), 'Curriculum is a powerful lever for changing student performance and well-being, and for preparing students to thrive in and shape the future. It can help to ensure consistent levels of quality across types of education provision and age groups, contributing to a more equitable system. It can also guide and support teachers, facilitate communication between teachers and parents, and ensure continuity across different levels of education.' (OECD 2020:3).

The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines curriculum as a "systematic and intended packaging of competencies (that is, knowledge, skills and attitudes that are underpinned by values) that learners should acquire through organised learning experiences both in formal and non-formal settings" (UNESCO 2020b). Curricula are often revised and reformed to ensure an education system adapts to the changing needs of learners. In some national contexts, curriculum reform might undergo a paradigm shift from a focus on content knowledge to an emphasis on skills and competencies. Other education systems may decentralize curriculum development to offer more autonomy to schools, teachers and students to focus on literacy and numeracy foundational skills (UNESCO 2015: 223). Reform efforts often involve changes to instructional material, such as textbooks, or changes to instructional content in literacy and numeracy (OECD 2005).

Curriculum is an often contested and challenging domain. Change in curriculum is one of the most politically sensitive and high-stakes reforms undertaken in education systems, and resistance to change is often much stronger than the desire to change (OECD 2020). An overview analysis of Indonesia's experience of curriculum reform was presented in Volume 1 of this series. In that volume and in Chapter 6 of the present volume, Curriculum and Assessment, the frequent reversals of curriculum direction over the last two decades are described. As characterized by one senior official in Indonesia's Ministry of Education,[9] the curriculum went from an historically prescriptive model to a very non-prescriptive school-based approach (*Kurikulum Tingkat Satuan Pendidikan*-KTSP) – with only national standards to guide schools and teachers. It became apparent that teachers and the system were not ready for this level of autonomy and had not been provided with the support and guidance to understand and accept the rationale for the change. In 2013 the curriculum reverted to a much more prescriptive model, *Kurikulum 2013*. The new curriculum *Kurikulum Merdeka*, launched in 2022, is, in part, an effort to find the middle ground, giving teachers enough choice along with the structure and support they need. It is also designed to allow schools and teachers the option of professional independence from guidance if they are ready for this, and a more structured, centrally defined approach if they need it.

As discussed in Chapter 5 in the first volume of this series, the repeating pattern of curriculum change in Indonesia, accompanied by changes of the minister, may be an underlying cause of the failure to achieve better learning outcomes. Where leadership continuity has been evident elsewhere in Asia – in Singapore, Hong Kong, Kazakhstan, and Vietnam, for example – that leadership provided a certainty of direction that made the pursuit of reforms a success and a constant in the professional life of teachers and school leaders (McLaughlin, Collen and Ruby 2021). A solution for Indonesia, embedded in the current reform agenda, is for national curriculum to no longer be subject to 'big bang' changes, often driven by political change at the centre, such as the lurch from centralized curriculum to school-based curriculum and back again in the 2004-2013 period. Instead, curriculum should be subject to continuous review and refinement, in an ongoing, iterative, adaptive process.[10] Moreover, curriculum implementation should be aligned and

supported by initiatives in other areas such as assessment and professional development support to understand what change is expected and why. *Kurikulum Merdeka*, appears to meet these criteria. In the words of one of the architects of Indonesia's reforms, 'the curriculum should follow the child, rather than child being forced to follow the curriculum'.[11]

Assessment

Assessment provides data on students' achievements and abilities. This gives teachers, parents, stakeholders, decision makers and the student's themselves the information they need to improve learning outcomes, an understanding of the extent to which learning objectives have been met (UNESCO 2015; Echazarra et al. 2016; Chen et al. 2017). Assessments to support learning —formative assessments —are particularly relevant to improving foundational learning as they help educators understand what learners are learning (and more critically, what learners have not yet learned), which teaching and learning approaches could be improved upon, and what further skills might be required (Greaney and Kellaghan 2008: 13).

Assessments are also used for summative purposes — assessment of learning or of system performance. Summative assessment of learning commonly occurs at the end of an instructional unit or stage of schooling to judge students' learning achievements or to inform decisions about teaching and learning and about the school – and sometimes to assess readiness to progress to the next grade or stage of schooling. Summative assessments of learning are often 'high stakes.' This means they have major life consequences for students and educators. Research finds that as the stakes associated with a test go up, so does the uncertainty about the true meaning of a score from that test and so do the distortions, corruption, and adverse backwash effects on the quality of education and students (Nichols and Berliner 2007).

This factor has plagued education, especially in developing countries with weak governance systems, such as Indonesia. It has led to major distortions and corruption in the education of children, a factor that has received significant attention internationally (Cannon and Arlianti 2009). As described in Chapter 6, the former examination system

(Ujian Nasional—UN) in Indonesia was viewed as having these effects and was abolished in 2020, during the COVID-19 pandemic, its abolition also reflecting a policy shift in the Ministry of Education.

A systematic review of over 54 studies representing 73 economically developing countries demonstrated how summative assessment data feeds into system assessment in the area of education policy development, including resource allocation to low-performing schools (UNESCO 2015). System assessments also provide critical data on demographic subgroups and highlight the disparities between the educational attainment in literacy and numeracy foundational skills of, for example, sexes, rural and urban locations, geographic regions, as well as linguistic and ethnic groups (Greaney and Kellaghan 2008: 9). However the UNESCO study found that large-scale assessment programmes were most often carried out to "measure and ensure educational quality, feeding into feed into system-level policies related to curriculum standards and reform, performance, and assessment. and less often used for the policy goals of equity, accountability and leverage for specific education matters," (UNESCO 2015: 63). The extent of disparity in educational outcomes across Indonesia and in education provision makes the use of large-scale assessments for this purpose essential to address the deep-rooted issues creating this marginalization.

As described in Chapter 6, policy and practice in student assessment are in transition in Indonesia, and now reflect a stronger emphasis than previously on student learning progress and attainment. From 2016 national competency assessments commenced and in 2021 the Assessment of Minimum Competency (*Asesment Kompetensi Minimum*, or AKM) was launched. In line with the new *Kurikulum Merdeka,* the AKM focuses on literacy and numeracy, and is accompanied by surveys of student character and the learning environment. The AKM has a system assessment function, and therefore is sample rather than population-based, making it far less high-stakes than the previous examination system. Data from the assessment is collated in the Education Report as an evidence base for targeting improvements at both school and system level. In the *Merdeka Belajar* reforms, summative assessment of individual students is the business of the school.

Indonesia is also emphasising formative assessments in all grades to further strengthen student learning. Diagnostic tests in foundational literacy and numeracy are available on online platforms and are expected to inform teachers and enable them to group children for differentiated learning, an approach supported within the new curriculum. These positive and inclusive policy transitions will need a program to explain the 'why and how', support for teachers (training and tools), and a broad base of support from teachers, parents, and civil society to be effective and sustainable. In short, the changes to assessment policy and practice will need authority, ability and acceptance to be implemented.

Teacher professional development[7]

Teachers and teaching are at the heart of the education endeavour. Based on a meta-analysis of over 500,000 studies on the effects of different influences on student achievement, John Hattie identified the teacher as 'the greatest source of variance of school factors that can make the difference' to learning outcomes (Hattie 2003: 3). The McKinsey study cited above found successful education systems focus on recruiting the right people and developing them into effective instructors (Barber and Mourshed 2007).

Policies and systems are needed to effectively recruit and train beginning teachers in pre-service teacher education programs, to set standards, establish procedures for certification and manage the performance of practicing teachers, to effectively incentivize them through remuneration and career paths, and to continually develop them as professionals.

System reform requires all of these strategies to cover the trajectory of teacher competence from recruitment onwards. However, some research into teacher effectiveness prioritises factors that are closer to impact on learning outcomes. (Hamilton and Hattie 2022; Higgins 2019). In a systematic review of factors contributing to improving student learning outcomes in Indonesia, teaching and school factors

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[7] Sometimes referred to as in-service teacher training, or continuous (or continuing) professional development (CPD), in this volume we use the term 'teacher professional development'.

were found to have the strongest effect on student's literacy and numeracy learning outcomes, compared with teacher experience and payment schemes for teachers (Rarasati 2017).

Focusing on factors closer to impact on learning is especially appropriate when the education system is engaged in transforming the whole system of delivery of learning for better outcomes; and is dependent on existing practitioners for delivery. In this review we will focus on the professional development aspect of teacher development.

While there is little doubt about the importance of teacher professional development, for reform and ongoing system improvement, it is difficult to directly attribute the effects of teacher professional development on student learning outcomes to particular programs and interventions (Guthrie 2011; Reid and Kleinhenz 2015). Nonetheless, the relevant question is how to increase the chances of investments in teacher professional development achieving the desired results. Doing 'more of the same' is unlikely to achieve a better result in countries like Indonesia, where the modes of in-service training have failed to improve learning outcomes in the past (Revina et al 2020).

Fortunately, there is an emerging consensus about what constitutes effective teacher professional development for teachers. A best-evidence synthesis of approaches to teacher professional development that result in positive outcomes for students demonstrates the importance of teacher professional development using approaches consistent with how people learn and by focusing on specific teaching strategies (Timperley et al. 2007; Timperley 2011). Effective teacher development focuses on classrooms and on student learning, on both subject content and teaching approaches, assists teachers to transfer and integrate new learning into practice, and allows time for teachers to engage with new ideas and practices, and participate in professional learning communities (Muijs et al. 2014; Timperley and Alton-Lee 2008).

Muijs et al. (2014) recommend four shifts in thinking required to improve teacher professional development as a means to improve learning outcomes for students. First, a shift from focusing on teacher professional development as transmitting information to teachers to focusing on professional learning using approaches consistent with the

principles of how people learn, as explained at length in Bransford et al. (2000); second, the need for collaborative inquiry when teachers working together frame their learning by identifying goals, creating partnerships with experts, to extend their knowledge and skills, and then evaluating their impact on student learning; third, focusing on the centrality of students in teacher professional development rather than on mastering decontextualised 'good practices'; finally, directing attention to all those in the 'chain of influence' from policy to practice who support teacher learning in schools to ensure that the right conditions for professional learning are in place. In this context, there is clear evidence that when teachers 'own' their own professional development, and are able to make decisions about what content is most relevant to them, the impacts are greater (Darling-Hammond, 2017).

Rarasati et al. (2017) found in the systematic review cited above that teaching strategies based on students' needs and difficulties can improve learning outcomes. The review also suggests that teachers should have a sufficient understanding of subject matter, teaching and learning, adequate skills to understand classroom problems, and the capacity to implement the most appropriate teaching strategies for individual learners and their context.

Overall, research and practice in teacher development emphasise the importance of five key elements: (1) implementing continuing professional development in continuous cycles of learning and classroom practice, (2) addressing local needs, (3) teacher learning in communities of professional practice, (4) educational leadership, and (5) focusing continuous professional development on children's learning needs.

The significance of communities of practice in Indonesia

Teachers work best in communities of professional practice with colleagues, a research finding that fits well with the context of Indonesia's collectivist culture (Timperley et al. 2007). The longstanding institution of teachers working groups (*Kelompok Kerja Guru*-KKG) at primary level, reflects this cultural practice in Indonesia. But, while the structure has sustained from its introduction in 1980 in one of the earliest development projects, the *Sistem Pembinaan*

Professional/Cara Belajar Siswa Aktif (SPP/CBSA), KKG are not functioning in many places, and where they are active, they have rarely been a forum for continuous professional development and are more commonly used for administrative matters (Sopantini 2014; Akrom 2017).

Nevertheless, INOVASI's own analytics and case studies in Indonesia provide evidence that teacher working groups can be effective. (Cannon et al.2014; Cannon 2020). This is particularly the case when professional development programs run through KKG align with government policies, identified local needs, and have local ownership. Chapter 4 Teacher Development provides evidence of the viability and effectiveness of KKG for upskilling teachers and meeting the challenge of curriculum change, when those conditions are met.

The *Merdeka Belajar* reforms have emphasised the importance of the 'learning community' model, albeit different from the KKG in being more integral to the school as a learning community. The model has yet to be evaluated; though anecdotal evidence also suggests that the model provides flexibility for teachers to establish organic communities of practice at school or community level.

In summary, the experience of teacher development in Indonesia over the last twenty years has not been encouraging. However, as described in Volume 1, efforts are underway to professionalize the teaching force through changes to pre-service teacher education, initial professional training (PPG), recruitment and teacher deployment processes, and new competencies levels and career structures which may help shape teacher development (*Model Kompetensi Guru*, PERDIRJEN 6565).

Learning from the past, there is also new attention being paid to providing teaching and learning resources to accompany curriculum change, through the online *Platform Merdeka Mengajar* (PMM)—though significant numbers of teachers will have access difficulty to this mode of provision. But, in the short term, to successfully implement the new *Kurikulum Merdeka*, it is in-service training that is needed. On the evidence cited here, the professional development model that is most effective for teachers is teacher collaboration in sites close to their schools on learning and learning problems that concern them and their students. As shown in Chapter 4, on the scale of teacher upskilling

needed, district leadership will be indispensable to harness all the district's local institutional resources, existing and new, to realise the promise of new ways of teaching and learning.

Book supply

Literacy is essential to learning across the curriculum and throughout life. The relationship between access to appropriate levelled and engaging reading material and literacy is clear. Children need books to learn to read – and they need books that are at their level of ability and interest. Analysis of PISA results demonstrate a strong correlation between reading for pleasure and academic achievement. While reading for pleasure does not necessarily impact test scores, enjoying reading is an "important precondition for becoming an effective reader" (OECD 2011:100). Fostering a reading culture is essential to improving early learning outcomes. Children also need access to appropriately designed textbooks and workbooks to support curriculum implementation.

In India, the NGO, Pratham, applied a community-driven approach through their 'Read India' programme. Level-appropriate instruction, training for community-based volunteers, as well as levelled readers were provided to 'teach at the right level' (based on assessment to determine children's level of reading) and to improve children's literacy outcomes. The results were significant: after only 50 days of focused teaching by lightly trained volunteers, children caught up from the lowest achievement levels to the learning outcomes of the third highest achieving state in India (Banerjee et al. 2016:28). A similar randomised control trial in the Philippines showed that age-appropriate levelled readers in both English and Tagalog improved children's learning outcomes (Abeberese et al. 2011).

Research conducted by the Education Endowment Foundation (Breadmore et al. 2019) considered total reading time as well as the types of material children read. Print exposure means how much reading an individual does (or how often younger children are read to), including a variety of print materials including books, and online or digital sources (Breadmore et al. 2019). The Education Endowment Foundation found a demonstrable correlation between print exposure

and reading comprehension, oral language skills and other early competencies: "Children with good reading comprehension skills tend to read more. This increases print exposure, which, in turn, helps to improve spelling and reading comprehension. Longitudinal studies corroborate this view" (Breadmore et al. 2019: 70).

While the evidence is clear on the role of levelled readers to improve learning outcomes, what role can textbook provision play? Considerable research has been conducted on how textbooks improve quality of education and school effectiveness. The provision and distribution of textbooks is particularly effective in increasing education quality especially in less- economically developed countries with limited education budgets and resources, (UNESCO 2015:202). Textbooks must be regularly updated to reflect educational developments such as changes in curriculum and subject content. International research also demonstrates that textbooks can support changes in teaching practice. In a review of over 500 textbooks in 70 countries over a 38-year period, educational researchers found that textbooks generally became more student-centred, with child-friendly texts and illustrations (UNESCO 2015: 204).

The 'Book and Reading Development Project' in Indonesia in the early 2000s focused on improving textbook availability and quality; reading promotion; teacher education; and monitoring and evaluation that included research to understand the long-term effects of improving learning in basic education. While the project reported "substantial impact on the provinces' capacity to undertake procurement of textbooks," the impact on reading culture was minimal with the focus solely on textbook provision. As the report states "changes in a society's reading habits are likely to occur slowly and take a generation or more" (World Bank 2004: 7-8). Despite the significant number of textbooks printed in the projects over several decades, increasing textbook supply is not enough to improve learning outcomes.

A key challenge in Indonesia lies in supply: access to levelled books (other than textbooks) across the country remains difficult and often unequal. Indonesian children at home and in schools, particularly those in rural districts, lack access to age-appropriate levelled readers. Many schools, libraries and community reading centres (Taman Baca

Masyarakat or TBM) are stocked with fiction and non-fiction books at an inappropriate reading level. Children need engaging, fun, illustrated fiction and non-fiction books to read for pleasure. Without the most basic -and yet critical- of resources, learners are held back from developing a love of reading.

They are also held back from developing basic literacy skills, which require practice reading engaging material.

Improved reading book supply has been found to be a key factor in improving reading outcomes In Indonesia. Analysis of INOVASI's interventions at school level highlighted two book provision variables - namely, the increase in the number of reading books in classrooms, as well as the increase in the interest in reading- as critical predictors to literacy proficiency and improvement in reading assessment scores (INOVASI 2019a). Endline findings of literacy pilots also evidenced a strong correlation between students' interest in reading and basic literacy test scores as captured by INOVASI's literacy thematic study (Fearnley-Sander 2020: 89). Further, regression analysis indicated that students' interest in reading was more statistically significant for improving scores than any other variable explored, including socioeconomic status, student ability, or availability of books in students' homes.

Chapter 5 details the policy journey INOVASI has undertaken with government in the quest to increase Indonesia's book supply to schools and community libraries, including in remote places, to ensure that the right kind of children's reading books (engaging and levelled readers) are delivered to the right places such as community libraries, and encouraging book-centred approaches in schools, such as using levelled readers to support reading in class, or linking schools with community reading centres to support children with reading difficulties.

Gender equality, disability, and social inclusion

Improving the performance of an education system, means improving learning outcomes for all children; girls and boys, children with a disability, children for whom the language of instruction is a second language, children in poor and remote communities. The question is how to do this, how to increase achievements for everyone, including-

and especially- those who have been historically excluded by education systems.

There are many reasons for improving equitable access in an educational system. Improving access is not only a question of social justice for the poor and disenfranchised,[14] but the benefits of improved learning outcomes positively impact families, communities, and wider society, supplying the critical skills for a population positioned to support a country's national growth and economic development (UNESCO 2020; OECD 2019: 24). Equitable access to education is also demonstrative of a wider education system's efficient use of national resources and budget. A less equitable educational system - where groups of learners continue to be marginalised- simply equates to lower national performance (OECD 2019).

Equity for the marginalized must consider inclusion in curriculum reform, teacher development, and assessment (Atinyelken 2015). Both sexes face their own unique gendered challenges in education and data demonstrate that specific groups of learners in Indonesia remain excluded and therefore at a disadvantage, including children living with a disability and children who do not speak Bahasa Indonesia when they start school (Muller and Perova 2018; Afkar et al. 2020). The kinds and scale of educational disadvantage that INOVASI focussed on redressing in the inclusion policy area are itemised below.

Regional disparities

Significant disparities in learning outcomes between regions reflect the uneven education provision in Indonesia. Learners with low numeracy scores are "more likely to live in Eastern Indonesia, in rural areas, and be older and male" (Beatty et al. 2018 :1).

USAID's Early Grade Reading Assessment (2014) highlighted a significant disparity between the national average and Indonesia's eastern provinces, namely Maluku, East Nusa Tenggara, West Nusa Tenggara, and Papua. While the national average of oral reading fluency was 47 per cent at grade 2 level, in Indonesia's eastern provinces it was only 23 per cent of students; and 22 per cent of students were grouped

as non-readers based on the results of the test (RTI 2017; Fearnley-Sander 2020).

The problems faced by children in remote and rural areas in Indonesia tend to intersect with other aspects of disadvantage, particularly poverty, lack of access to resources such as books and internet, and lack of familiarity with Indonesian as the language of instruction. Child marriage is more common in remote areas, and, although the evidence for this is anecdotal, gender-based violence is likely to be a greater risk. With limited access to medical and support facilities, disability is also likely to be a greater factor.

The solutions to improving learning outcomes for these children are thus likely to be multifaceted, and involve systemic and structural reforms to infrastructure, education, and health services. Differentiated funding mechanisms, such as per-capita school grants (BOS) which favour remote regions or additional resourcing, such as Indonesia's national book supply program are also likely to help.

Gender disparities

Girls and boys face different challenges based on their gender. There is significant global research on underlying gender norms that impact educational attainment (Nakajima et al, 2016; Muller and Perova 2018), recently exacerbated by the impact of the COVID-19 pandemic, (de Paz Nieves et al. 2021; INOVASI 2022).

Muller and Perova (2018) argue that gender differences in learning outcomes can be attributed to differences in mindsets, socio-emotional skills, and other behavioural factors. Their study of grade eight adolescent boys revealed that male students consistently have lower grades and miss more classes than girls. Absenteeism, lower socio-emotional skills, and lower educational aspirations all contribute to lower learning achievement in boys (Muller and Perova 2018). In all but three countries participating in PISA 2018, at least 20 per cent of disadvantaged boys failed to meet minimum proficiency in reading, and in 24 of these countries more than 70 per cent of boys scored below minimum proficiency (Schleicher, for OECD 2019).

While girls and boys have equal access to education in Indonesia, international standardised assessments provide evidence of disparities in learning outcomes, with girls consistently outperforming boys. Girls in Indonesia scored higher than boys in all subjects in the 2018 PISA, while the 2015 TIMMS indicated girls scored higher in mathematics and science (by 10 and 8 percentage points respectively) (Afkar et al. 2020).

INOVASI similarly found gender disparities in basic literacy and numeracy scores across the four provinces in which it works: NTB, NTT, East Java and North Kalimantan. In line with educational trends in international assessments, girls outperformed boys in INOVASI literacy and numeracy assessments. For example, grade 3 boys who participated in INOVASI's baseline basic literacy assessment were, on average, 11 points behind girls (Gibson and Purba 2020).

While, on average, girls consistently outperform boys in academic tests, girls face discrimination in less obvious ways. Children's books, including textbooks and workbooks, often present girls and boys in traditional roles, teachers commonly assign different tasks to girls and boys based on gender. Participation in sport and outdoor activity is also gendered. Girls often do not have access to role models of women in leadership. Gender-based violence is common in schools, and child marriage is common in many areas, with girls generally marrying younger than boys – and both dropping out of school when they do so. Toilet facilities are frequently lacking in primary schools, with girls and boys sharing toilets which are unclean, lack privacy and sometimes lack water. All of these aspects of the 'hidden curriculum' reinforce stereotypes, limit the aspirations of girls (and boys), and in some cases restrict the full participation of girls in schooling.

Efforts to address these issues, to find out 'what works' to improve learning outcomes for girls and boys, vary across countries and cultural contexts. In Indonesia, INOVASI worked with government and non-government partners to explore solutions, and the solutions the program pursued and what factors encouraged their selection, are detailed in Chapter 8: Gender Equity and Equality.

Learners with disabilities

Children with disabilities[8] encounter multiple barriers in accessing education, which include, but are not limited to, a lack of institutional and infrastructure support, inaccessibility of information, as well as social norms regarding children with disabilities that prevent them from attending school (Afkar et al. 2020). Faced with these multiple challenges, children with disabilities are likely to experience greater educational gaps, especially if families have fewer economic resources at home.

While attention has been given to children with disabilities as seen in the development of GoI policy and programs such as *Sekolah Luar Biasa* - 'special schools'- and inclusive schools, school enrolment and completion rates present extreme disparities between children with and children without disabilities. Based on 2018 data from the Indonesian Bureau of Statistics' National Socioeconomic Survey (Susenas), 28 percent of Indonesian children with disabilities had never been to school. Only 54 percent of children with disabilities completed primary school compared to 95 per cent of children without disabilities, and only 26 percent of children with disabilities completed junior secondary school compared to 62 percent of non-disabled children) (UNICEF 2020). It is important to note that these data refer to severe disabilities, which suggests that the number of out-of-school children with disabilities will likely be higher when the definition includes children with mild and moderate disabilities. Indeed, only capturing the number of children with severe disabilities is indicative of a wider problem: a lack of awareness of, and capacity for, identifying and responding to the needs of children with disabilities that are not as straightforward to recognize.

A study of learning gaps conducted in Indonesia during the COVID-19 pandemic found significant gaps in learning outcomes between students with and without disabilities: 43 per cent of students with disabilities performed at level 1 literacy, meaning they did not meet the minimum level of proficiency by the end of grade 2 or 3. In contrast,

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[8] The term "disability" used in this report is consistent with the definition in Indonesia's Law No. 8 of 2016, which states that **Persons with Disabilities** are any person who experiences physical, intellectual, mental, and/or sensory limitations for a long time which, in interaction with the environment, may lead to obstacles and difficulties to participate fully and effectively with other citizens based on equal rights.

only 20 per cent of students without disabilities did not meet the minimum level of proficiency (INOVASI Learning Gap Study 2022: 24).

The 2020 Global Education Monitoring Report on Inclusion (UNESCO 2020a:4) outlined evidence-based strategies to enhance learning outcomes for students with disabilities. These include teacher training focused on skills to cater to diverse learning needs, individualized instruction, and positive behaviour management; design of accessible curricula; and integration of assistive technologies, such as communication tools and learning aids. Additionally, fostering inclusive environments through peer support, collaboration, and community engagement; data-driven decision-making, flexible assessment approaches, professional learning communities that support collaboration between special education and general education teachers, and strengthening the linkages between parents of students with disabilities to health services (Mitchell and Sutherland 2020).

The Washington Group on Disability Statistics advocates for indicators, such as those linked to the various Sustainable Development Goals, to be disaggregated by "characteristics associated with exclusion and vulnerability, including disability" (The Washington Group 2020:4). INOVASI's approach to disability inclusion began with pursuing a more accurate and accessible way of identifying disability, focussed on the learning profile of individual students (Sprunt 2020: 8). The program has worked to align education management information systems across the whole sector with this mode of identification so that data disaggregation, on multiple variables, can enable the tracking of individuals' progress across the system; and to harmonise educational resource allocation planning and disability inclusion policies at all levels. The study of systems strengthening that this entailed is described in Chapter 7 Disability.

Mother tongue and language transition

Considerable international research examines the pedagogical advantages of teaching in a child's mother tongue (UNESCO 2015). Children have more meaningful interactions with their teachers and other learners as they engage in their early education, understand better and have higher learning outcomes when their mother tongue is the language of instruction. Their foundational literacy skills develop

faster when they learn in mother tongue. They have more motivation and self-esteem and are able to apply the same skills to learn other languages more easily (Arsendy 2019; Klaus 2003; Pattanayak 2019). Children are also less likely to drop out of school when language policies support mother tongue instruction and allow transition to national language instruction (World Bank 2019).

According to the Ministry of Education, 718 regional languages (excluding dialects and sub-dialects) have been identified and validated from 2,560 areas across Indonesia (Ministry of Education Language Mapping 2023). With limited access to books, teacher training and teaching resources in remote areas, the challenge faced by children entering school without fluency in the language of instruction is a serious issue. According to the Ministry of Education's Language and Book Agency, 73 per cent of Indonesians aged five years and above communicate predominantly in their mother tongue at home, therefore the majority of school-aged children mainly speak a language other than Bahasa Indonesia at home (INOVASI 2019b). Many enter the schooling system with limited or no fluency in Bahasa Indonesia, the language of instruction. INOVASI found evidence of the efficacy of using mother tongue to transition to the language of instruction, or approaches of mother tongue-based multilingual education, in pilots in East and Southwest Sumba districts (INOVASI 2021).

Indonesia's Education Law 2003 permits the use of mother tongue in early grades classes, a policy reinforced by the Presidential Regulation 63/2019. However, lack of fit with other policies on curriculum and student attainment has inhibited teacher take-up of this productive strategy. Chapter 6, Curriculum and Assessment, details how INOVASI supported this reforming government to develop a more ample policy authorisation that encourages implementation of mother tongue as a transition to learning in Bahasa Indonesia.

Conclusions

Improving teaching practices and learning outcomes is no easy task, especially in a system so vast and so diverse, and facing such serious challenges in management and governance as Indonesia. A key lesson learned from experience and research in Indonesia (Sopantini 2014)

and supported by the international research into educational development (Guthrie 2021a; 2021b), is that inflexible, one-size-fits-all, and culturally inappropriate solutions to local problems typically do not work, and do not sustain. The standard approach to education development and government reform in Indonesia has been a top-down, standardized approach. In-service training modules are designed by experts, based on international 'best practice', and cascaded down to provinces, districts and school clusters. The expectation is that this 'best practice' will be adopted in schools, and then sustained, 'replicated', 'disseminated' or 'scaled out' to others – in Indonesian*, 'diimbaskan.'* But the problem of poor learning outcomes remains (Heyward 2019).

As described in the following chapters, INOVASI sought to address these concerns by adopting a problem-driven approach. The focus was on local solutions to local problems. Similarly, the current transformational reform program led by the Government of Indonesia has opted for a flexible 'emancipated' approach to policy and curriculum reform; partnerships with schools, districts and the education ecosystem, using local institutions and linking stakeholders at all levels, while providing online resource banks to support for teachers and quality assurance agencies to support district leadership.

This chapter set out to frame the focus of this study on the policy areas of curriculum, assessment, teacher development, reading book supply, and inclusion (gender equality, disability and social inclusion). We have provided a brief summary of evidence that these five domains are germane to the improvement of learning outcomes for children. We also briefly discussed the previous policies and programs on which current orientations of government and INOVASI have built.

The reform of education over the last twenty years in Indonesia was described in Volume 1 of this series. That reform has suffered from lack of continuity, with frequent changes in direction, particularly in curriculum, associated with political changes and the appointment of new ministers responsible for education. Yet the international evidence suggests that continuity and long-term commitment is critical to successful reform. Governments and the education community must 'stay the course' if reforms are to succeed. Change requires authority,

acceptance and ability – the triple-As. Without the intersection of these three elements, successful reform is unlikely. INOVASI has worked to expand the change space in Indonesia's education system. It has focussed on the foundational skills of literacy and numeracy. The program has provided the government of Indonesian with a kind of laboratory, a group of partner districts willing to try out new approaches, to 'find out what works' to improve learning outcomes, to be a bridge between the national and subnational governments, government and non-government agencies with a shared interest in improving learning outcomes. In the following chapters we explore how INOVASI worked to play these roles and supported the government of Indonesia with its ambitious reform agenda.

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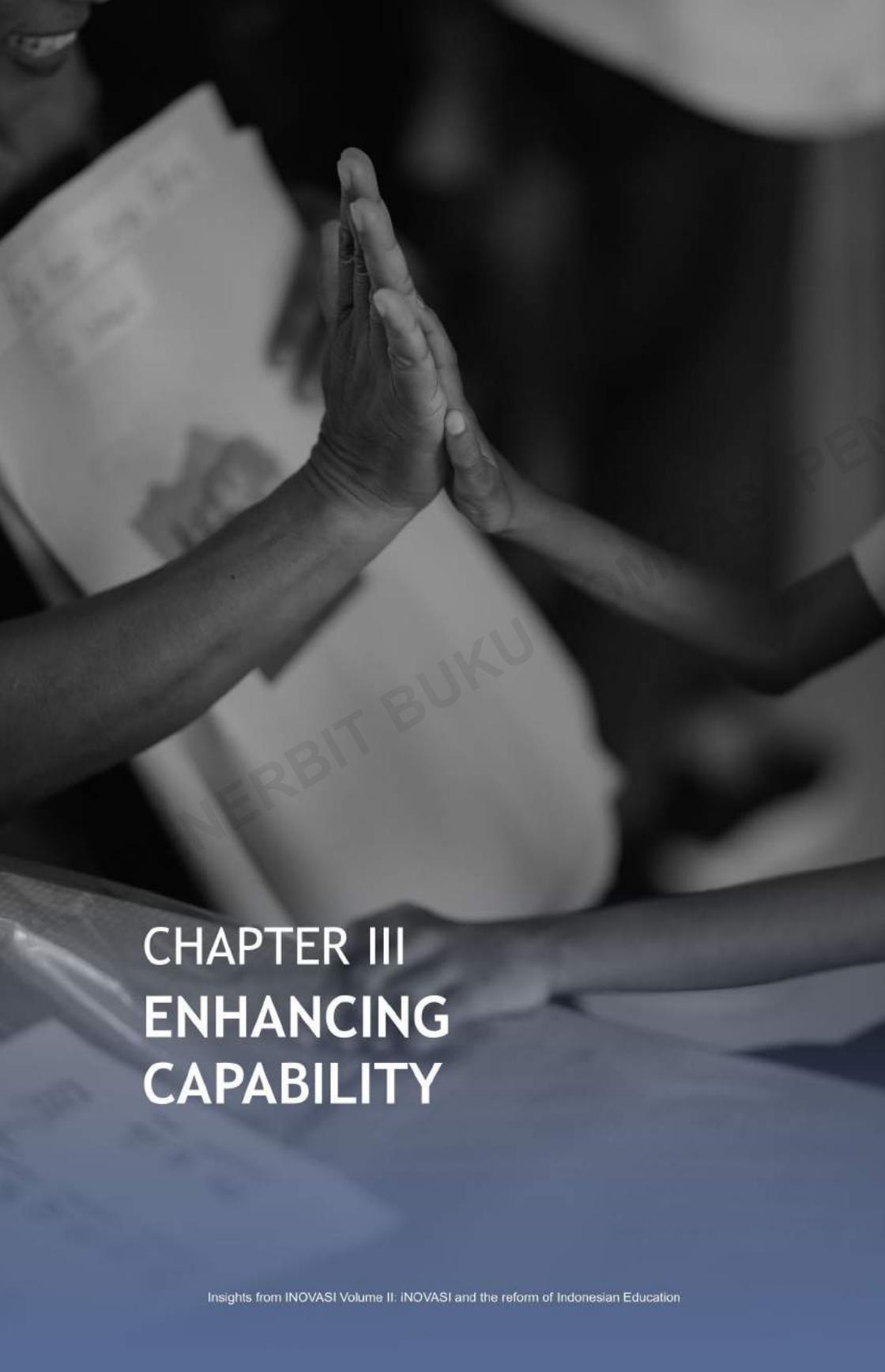
CHAPTER III
ENHANCING CAPABILITY

CHAPTER III : ENHANCING CAPABILITY

Mary Fearnley-Sander & Mark Heyward

Abstract

This chapter profiles the principles and strategies that TASS and INOVASI adopted to pursue their goals. It is aimed at helping the analysis in succeeding chapters, of how both programs had an effect on the reform of education policy in the areas targeted by the program. The first section explores where the programs fit in current paradigms for development assistance, describes the features that they respectively adopted from the Problem Based Iterative Adaptation (PDIA) and Thinking and Working Politically (TWP) approaches, and culminates in the articulation of the conceptual framework that guided the programs' approach to developing capability. The second section illustrates the dynamic interaction between the programs' development strategies and the development context, which dramatically changed during the life of INOVASI. The three case studies in this section track the programs' adaptation of their approaches to this changing context, and their own innovations on PDIA deployed in the context of a large and complex sector like education. The chapter concludes by identifying the principles and strategies from both development approaches that the programs found most effective and most easily replicable to novel development problems as they occurred.

Introduction

This chapter identifies the development approaches of INOVASI and TASS to influencing change in policy and practice in the sphere of education. The purpose is to make explicit the principles and strategies that underlie the more intuitive 'doing' of policy influence that the following chapters narrate: policy influence in the areas of curriculum, teacher development, resourcing reading, gender equality and disability inclusion. The value in doing this is to show what program strategies worked most effectively to contribute to transformative change; and what was it about them that were likely to have this effect. The chapter starts by introducing the development orientation of the two programs. Two main sections follow. The first identifies the features of the paradigm the programs drew from and provides an analytical framework to show how they deployed their choice of influencing strategies for their different policy contexts. Identifying these paradigm features is useful because it provides broad guidance in the tricky business of deciding what approaches are compatible with a program's theory of development. Understanding core principles, and their development logic, liberates program teams to respond in unanticipated ways to dynamically changing contexts, confident that moves are consistent with the logic of those principles. The second section of this chapter illustrates the interaction of context with program strategy. It describes what was learnt from the experience, via three case studies from different phases of the programs. The main focus is the application of the paradigm to supporting policy and practice improvement in a sector as organisationally complex as education. The chapter closes with conclusions, drawing on the analysis to summarise what the programs distinctively took from the paradigm they worked with; and what they contributed to it in application to education.

Overview of the program approaches to development

The Introduction to this volume provides a profile of INOVASI and TASS. Here the focus is specifically on their development orientation. INOVASI and TASS were designed at a time when development agencies, including DFAT, were questioning their approach to design and delivery of development assistance. In Indonesia, years of donor-

funded projects, while helping to build an evidence base about what works, had failed to sustain or scale improvements in learning outcomes. At least USD 5 billion had been granted or loaned to Indonesia for education development since the 1970s (Cannon 2017). But the problem remained. The government's own efforts at education reform, described in Volume 1 of this series, had failed to improve learning outcomes. A new approach was needed.

In design, both programs were influenced by contemporary development theory relevant to the problems of achieving sustainability and scale from donor-supported interventions. INOVASI was designed as an application of Problem Driven Iterative Adaptation—PDIA (DFAT 2014: 6) to scrutinise the problem of poor learning outcomes in early grades reading and numeracy at source, namely the classroom; and the systemic factors impacting on them at that level. The experimental bottom-up approach of a PDIA-type methodology was needed to find out what was going on in classrooms and to begin to understand what solutions would be appropriate.

The emphasis in the design was on the generation of evidence through participative problem identification and piloting of solutions— 'finding out what works to improve learning outcomes'; and use of that evidence to influence the reform of education policy and practice by working with counterparts and coalitions, exploring the problems and iteratively implementing the solutions together. At the time, INOVASI was characterized by Pritchett (2017) as the first use of PDIA in an education program.

As explained in the Introduction, TASS was initially designed as a facility, with the purpose of helping the national government on a response-to-demand basis. The strategic intent of the program was to support use of evidence in policy (including evidence from subnational policy implementation) and bridge the policy-implementation gap. This required earning a seat at the policy table. TASS did this in the first year of the program (2017) through delivering 'tasks' upon request from GOI partners and building relationships of trust to interest the government in improving their policy initiatives.

Once trust and credibility were built, TASS was better able to 'pick and choose' strategic activities that would have greater impact on policy development. In a design revision in 2017, TASS approach was articulated as Thinking and Working Politically (TWP). In this approach, the team supported government already in the lead: helping officials take policy in the direction they wanted to go; supporting their understanding of processes that assist effective action in the policy environment; and facilitating their access to other systems' experience of the consequences of different options available to them. (DFAT 2020:11; Nichols and Bodrogini 2019: 21).[9] Its toolkit included the politically astute, quick-footed and technically competent local 'colleague' from the program, constantly at hand, and able to deploy the resources of the program to meet requests.

Both programs were designed for adaptive programming to facilitate their responsiveness to problems and opportunity. They had 'tight ends but loose means': they were loose, that is, about the route, about the most appropriate reform pathways and strategies, but clear about the outcomes they were aiming for (DFAT 2019: 4). Continuous analytics, six-monthly team reflections on monitoring data, and in the case of INOVASI, iterative strategy testing, all led to significant alterations in the programs' theories of change and shifts in approaches and priorities. In each phase, the program approaches were also affected by changes in their development context, which also called for adopting different ways of working at different times.

In implementation, the relationship of the programs was one of complementarity. When the two programs combined in the second phase of INOVASI (2020-3) the PDIA and TWP approaches were continued in the program's dual focus on capability development for effective policy and implementation at the national and the subnational level.

The following section of this chapter explains the contemporary development theory influencing the programs. The chapter then takes a closer look at the logic of PDIA's approach in particular, because of its

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[9] This is described as process consultation by Nichols who identifies its sources in Schien, Edgar, H, Process Consultation Revisited – Building the Helping Relationship, 1999, Addison-Wesley Publishing, Inc.

prominence in INOVASI in its first phase and as amalgamated with TASS in Phase 2.

The programs' paradigm

The failure of development assistance to sustain improvements has been accounted for as the consequence of a 'project-like' approach to development. Such an approach can be succinctly summarised as the 'transplantation of best practice' into development contexts to improve performance in different sectors (Andrews, Pritchett and Woolcock, 2017). 'Transplantation' of best practice entails several features which help account for the failure of change to sustain. It is agnostic as to contextual fit, including whether relevant institutional capacities exist for implementation. Its design follows a prescriptive and unyielding linear roll-out. As an introduced development, it is not locally 'owned'; and it often externally led and implemented, not building local capabilities.

A new paradigm emerged around the time of the design of INOVASI and developed from the lessons of these project features. Teskey (2017) has summarised the contrasting paradigms, referring to them as first and second 'orthodoxy'- indicating the tidal shift in global thinking about doing development for transformational change. The table below is a version of his typology accommodating contrasting characteristics that other donors have found; and identifying programs that belong to the second orthodoxy family.

Table 1 Two contrasting design features in development paradigms (Adapted from Teskey 2017:4)

	The first orthodoxy	**The second orthodoxy**
Approaches	The traditional project framework	Doing Development Differently (DDD) Thinking and Working Politically (TWP) Problem-Driven Iterative Adaptation (PDIA) Developmental leadership

Planning paradigm	A prescriptive, linear, blueprint approach, often based on imported "best practice"	Design of the problem and the goal Strategic pathways undefined at design stage but program strategy relentlessly focused on the goal
Problem definition	Lack of resources or capacity constraints	Limited scope for collective action[10] Reform resistant institutions
Key partners	Ministries, departments, agencies	Leaders, coalitions, networks

The features of this new orthodoxy have been the subject of several syntheses. Discussing TWP, Laws and Marquette, drawing on others, highlight as its distinguishing features, strong political analysis, appreciation of local context, and flexibility and adaptability in program design and implementation (2018: 2). Indeed, much of the discussion about the distinguishing features of TWP has also focussed on adaptive programming as the logic of program management for responsiveness to context. With 'relentless focus on the goal' to keep the program on track, the chief programming requirements at design and implementation are systems for program learning and flexibility, and a donor tolerant of uncertainty; while the program team, equipped with such systems, works progressively to reduce that uncertainty (Teskey and Tyrell 2021:11-12).

The second orthodoxy also implies the use of political strategies to advance human development goals embedded in the specific sectoral objectives and that may form the basis of a donor's engagement in assistance. These are goals such as inclusive social development and gender equality. Members of the second orthodoxy family feature this aspect of the political to different extents. The Developmental Leadership program (DLP) has strategies to disrupt exclusionary rules of the game and norms of the status quo.[11] But the TWP agenda in

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[10] Leftwich and Wheeler (2011) define collective action problems as "those pervasive 'social dilemma' situations found in all societies and human groups where the pursuit of short-term self-interested strategies leave everyone worse off than other possible alternatives might do".

[11] The Developmental Leadership program is an international research initiative that explores the process of building political will to bring about inclusive change. It views leadership as a collective process and features the formation of influential coalitions to overcome barriers and transform institutions. DFAT has funded

general has been criticised as "blind to key components of the workings of power" in relation to gender: "the ways in which wider economic, political and social structures rely on and reproduce gender power relations" (Koester 2015:5). Later in the chapter when looking at INOVASI's application of PDIA, the relevance of this criticism to the program will be raised.

A decisive moment in the emergence of the second orthodoxy was the articulation of its features in the principles of the Doing Development Differently (DDD) Manifesto, led by the developers of PDIA at the Centre for International Development at Harvard University.[12] This framing profiled what DDD and TWP should actually look like in practice — and they have a decidedly PDIA look. Synthesising the research, the principles that link family members of this paradigm are shown in Figure 2.

Figure 2 Synthesis of DDD features

- **Problem based support.** "A problem-driven process forces a reflective shift in collective consciousness about the value of extant mechanisms, which is needed to foster change." (Andrews, Pritchett and Woolcock, 2017:141). (DDD Manifesto)
- **Locally-owned,** defined and led change. This means capability building for processes that result in contextual fitness, acceptance and sustainability (DDD Manifesto).
- **Understanding the formal and informal institutional contexts** (the role of leaders, ideas, norms, values) within which change occurs. This means "no technical solution without a political solution" (Leftwich); programming informed by political economy analyses and perspectives (country / sector / program / issue); and recognising "critical junctures" as opportunities for influence (DLP; (Teskey and Tyrell 2021).
- **Supporting, brokering, facilitating** the emergence and practices of reform leaderships, organisations, networks and coalitions' (DLP 2018: 24-25)
- **Adaptive, responsive programming and iterative adaptation** in program implementation based on regular re-evaluation of tactics and strategies in response to (regularly updated) political analysis and program learning.

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many DLP initiatives, and has been influenced by its approaches to leadership development in the Indo-Pacific region.

[12] The Manifesto says: "Development initiatives that have real results have these features:
They focus on solving local problems that are debated, defined and refined by local people ...
They are legitimised at all levels (political, managerial and social), building ownership ...
They work through local conveners who mobilise all those with a stake in progress ...
They blend design and implementation through rapid cycles of planning, action, reflection and revision to foster learning from both success and failure.
They foster real results – real solutions to real problems that have real impact: they build trust, empower people and promote sustainability."

Doing Development Differently was intended as an umbrella for the various applications of the new paradigm, including TWP and PDIA. However, the fundamental hypothesis driving the logic of PDIA differentiates it in emphasis from other approaches in this paradigm. This fundamental hypothesis is that capability has to be built for effective policy; and this is because "the real determinant of policy performance—whether it produces the desired outcomes— is capability for implementation" (p.12). Reform cannot be imported. "The contextually workable wheel has to be reinvented by those who will use it. In this sense, building capability to implement is the organizational equivalent of learning a language, a sport or a musical instrument: it is acquired by doing, by persistent practice, not by imitating others". (Andrews, Pritchett and Woolcock, 2017: 28). Put In Pritchett's colloquial language ""you cannot juggle without the struggle"(Personal correspondence with Lant Pritchett 9/5/2023).

From this hypothesis most of the rest of PDIA flows. First, processes supporting effective implementation are the critical processes for change. That puts the emphasis immediately on the local, because the policy has to fit the complex problems of context to be well implementable. Without that fit, implementers may comply with policy prescriptions—but no improvement will take place because the policy does not impact on the underlying conditions of success.[13] Local stakeholders have to be engaged in identifying the problem for a policy solution, and local leadership has to want to "equip, enable and induce their agents to do the right thing to achieve the sought after improvement." (Andrews, Pritchett and Woolcock, 2017: 95.)
These are the two central development stratagems of PDIA: the engagement of stakeholders in probing what the complex of problems is that frustrates performance; and secondly, the process of building capability for the adoption of viable solutions. The authors of PDIA developed the 'Triple A' heuristic that expresses the relationship of these two central ideas and their consequences for sustaining and scaling change. This is shown in Figure 3.

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[13] Compliance implementation—"isomorphic mimicry"

Figure 3 Triple A change space diagram

The space for change is created by the convergence of three conditions of success: authorisation (sometimes called authority), acceptance and ability (capability) as shown in the Venn diagram. Part 2 of the PDIA manual Building State Capability is largely about what these three conditions of success are and how to make them emerge. Authorisation is needed for change. But authorisation only from the top is insufficient across large systems. The influence of top leadership is limited; there are fractures in downward authorisation; often more than one authorising agency; always resistance at lower authorising levels. Acceptance means persuasion of the value of the proposed change and must be felt by all who are directly affected by it. Ability means not only the technical capability of the organisation but also the alignment of resourcing with the desired change.

What generates the engagement of stakeholders? What are the processes that develop capability? The answers that PDIA gives to these questions explain how programs following its methodologies go about influencing policy and practice.

There are two answers which explain much of how PDIA strategies authorising engagement, acceptance and capability. To engage authorities, the problem of poor performance must be made to matter, politically and socially. Low and unequal outcomes, for example in

education, can easily be normatively accepted as the way things are. Constructing the problem as a political one calls for campaigns of evidenced-based advocacy about the extent and identity of the casualties, the cost and causes of poor performance, and the feasibility of alternative outcomes. Complex initiatives call for coalitions around making the problem matter. Gaining stakeholder acceptance of proposed change calls for mind-set change; and that is achieved through the processes of a problem-based approach to policy and practice improvement. PDIA's approach to problem-based development is its most defining and distinguishing feature; what the PDIA acronym stands for. "Problem-driven iterative adaptation" means a process of analysing a problem to uncover all contributory causes, experimenting iteratively, adapting based on evidence, identifying things that work—instances of positive change, or deviance. It is a process which if engaged in by stakeholders "forces a reflective shift in collective consciousness about the value of extant mechanisms, which is needed to foster change"—as emphasised in the DDD Manifesto. It is also the route to the capability development of institutions. Capability is acquired by "persistent practice" in these reflective processes, which also leads to a readiness to pursue multiple entry points for institutional change, expanding the change space, creating the "dynamic sustainability" of improvement (Andrews, Pritchett and Woolcock, 2017: 217).

What INOVASI and TASS drew from the paradigm

Both INOVASI and TASS were programs about building capability. Both responded to the fundamental hypothesis of PDIA: that the test of policy performance is in its implementation. There was a difference, however, between their approaches to capability building. That difference is the difference between building capability when the route is known and mapped; requiring only an authoriser, the right supplies and implementing teams (TASS); and building capability when even the destination of the travel is unknown, let alone the route to it and the right supplies (INOVASI Phase 1). The PDIA authors' analogy for the difference between the two contexts of capability building is travelling from St Louis to the West Coast in 2015—with a mapped route; and travelling to it in 1804—destination, staging posts and route unknown.

The PDIA analysis of capability development does not consecrate one model at the expense of the other. What model is appropriate is determined by context. Working with the leadership capabilities of the national government made TASS' approach to capability development more like the 2015 model. In this approach, the team supported a government already in the lead: helping officials take policy in the direction they wanted to go, 'nudging' policy in the direction of improvement. In Phase II, the two approaches came together: as explained in the conclusion of Chapter 2, INOVASI was able to offer the national ministries the 'laboratory' of the program's partner districts, a space to pilot its new policies, learn from the experience of districts, and iteratively improve both policy and implementation.

To what extent have INOVASI and TASS taken on the harder edge of thinking and working politically, mentioned earlier when listing the features of the second orthodoxy; exclusionary norms or discriminatory rules of the game that thwart the goals of equal development? This harder edge is what is in mind when technical solutions are counterposed to political solutions; and seen as inadequate for resulting in transformative change, for example, in gender equality or inclusive improvement of learning outcomes.

Both programs included gender equality and inclusion. One of INOVASI's three areas of investigation is 'learning for all', encompassing in the design "girls, boys, children with disabilities and from poorer economic backgrounds" (DFAT 2014: 4). This element is implicit also in the statement in the 2018 TASS design: TASS is to think and work politically "focusing on changes that are desirable, technically feasible, and politically and institutionally viable". (DFAT 2018: 5).

PDIA does address the harder edge of the political —exclusionary norms or discriminatory rules of the game. However, it does not do this through disruptive strategies, if by those are meant supporting adversarial political play. Rather, PDIA applies to the idea of 'working with the grain' (Levy 2018) which has a very different feel about it. Going with the grain, as PDIA interprets it, is about the exploration of the existing system for its own potential as a disruptor of norms that have got an ascendency; for relevant values or rules that status quo advocates share with reformers; and supporting the ascendency of

these values or rules in resolving the matter at hand. This is part of what is meant by "making the problem matter"; bringing about the "reflective shift in collective consciousness about the value of extant mechanisms, which is needed to foster change". Indeed, leaving the political out of the technical is exactly what the authors of Building State Capability mean by isomorphic mimicry.

The hard test cases of this working hypothesis of PDIA are INOVASI's objectives in the policy areas of gender equality and disability inclusion. The narratives in Chapters 7 and 8 describe how the program has strategized the getting of traction in these areas; how the change space was explored with many of the tools of PDIA to locate the opportunities for change and the barriers; what matters and to whom; how to harness, for example, reforming interest in the merit principle to extend to the case of women candidates in the selection of principals; or seize the opportunity of public outrage at sexual violence in schools to start probing its roots in discriminatory gender norms.

In conclusion, programmatic labels—PDIA, TWP, DDD, are unequal to the repertoire of strategies actual programs deploy. For that matter, paradigm categorisations or orthodoxies are also porous. A 'helping' approach to policy development can take a program into the 'project' territory of the old orthodoxy. In Phase 2 INOVASI has helped the national government with extensive product development of curriculum materials. But, as described in Chapter 6 Curriculum and Assessment, this help is the result of strategic understanding of what is needed for policy implementation. The programs were at times opportunistically responsive, adaptive, problem-based, and politically savvy, depending on the issue and the context - all consistent with the principles of both PDIA and TWP, and DDD. What perhaps does distinguish INOVASI Phase 2 and makes it feel most like an exemplar of PDIA, is its conception of the development problem as inherent in implementation, with all that that entails.

Figure 4 represents a conceptual framework for understanding what principles and strategies were used in TASS and INOVASI to influence change in policy and practice. It illustrates how these principles and strategies were deployed to bridge the two political contexts of the program — national and subnational —and in so doing to address the

wicked hard problem of policy fit for implementation. It identifies the strategies appropriate to each of these capability contexts; and the tools that built the bridge, illuminating the moves recorded in the narratives of policy influence in the following chapters.

Figure 4 Principles and Strategies Conceptual Framework
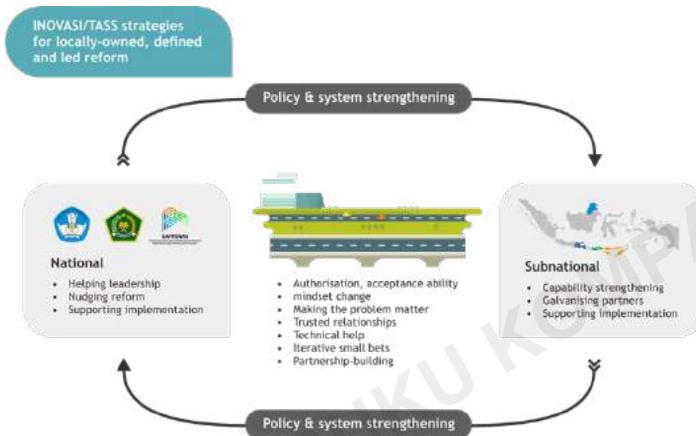
Adapting to context

INOVASI selectively applied the PDIA strategies for building capability. Over 25 practitioners from INOVASI, TASS and partners, took the 15-week online Harvard course elucidating the development methodologies of the PDIA text Building State Capability: Evidence, Analysis, Action, over three years 2017-2019.[14] The text lends itself to use as a casebook, with chapters stepping through the approach and providing examples of their application, which can be extrapolated to other situations.[15]

This sense of sequenced steps provided a map for strategy development in INOVASI, Phase I; and a shared understanding across the team of a

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[14] The course was entitled: '*Practice of PDIA; Building Capability by Delivering Results*'
[15] Notably Andrews' "Learning to Target for Economic Diversification: PDIA in Sri Lanka". 2017. Centre for International Development at Harvard University. Faculty Working Paper No. 332.

large and distributed program on what to do and how to do it.[16] Reflection on the application of these steps and their effects, led to clear shifts and stages in the team's interpretation of the essential features of the approach; and the gradual sifting of replicable strategies in PDIA from those that proved less fitted to particular contexts —to the point where the INOVASI team acquired a confidence in selecting from among PDIA principles what would work in unmapped circumstances. These are described below.

Program management expressly encouraged provincial teams to nurture the emergence of local solutions and local capability development, rather than implementing a pre-designed top-down solution. One of the benefits of the strategy testing was provincial teams being empowered to advise the central team about what was and wasn't working and to propose a different activity approach; the 'drop or adapt' method for iterating.

This section presents three case studies that describe the way in which the new approaches were interpreted and evolved in INOVASI to fit with different contextual influences and led to the gradual emergence of a distinctive selection of strategies in INOVASI Phase II.Context governed adaptation. Understanding how TWP and PDIA were interpreted and evolved as ways of working in INOVASI in Phase I and II, requires an understanding of three contexts: the program context for 'finding out what works' to improve learning outcomes, the political context of central-subnational relationships; and the development context of dynamic changes in the environment. Each of these is illustrated in a case study below.

Case 1: The program context for improving teaching

In tackling, with teachers, the problem of low learning outcomes, INOVASI in Phase 1 had three aims in view. The first was to change the way the problem was seen by teachers and authorities, from an acceptance of this situation as 'the way things are' to a problem that matters, that needs changing. The second aim was to explore the causes

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[16] This uniform understanding was reinforced by the enrolment of all relevant practitioners in INOVASI in the Harvard PDIA course provided.

of the problem with teachers and education administrators (both 'proximate' or immediate, and 'distal' or deeper causes), and the third was to co-design and pilot possible solutions to the problems once identified, with teachers and authorities (INOVASI 2020a).

INOVASI's first experiments in identifying problems and trialling solutions were referred to as Guru BAIK. The pilots were initiated in West Nusa Tenggara (NTB) province and subsequently extended to East Nusa Tenggara (NTT). Guru BAIK supported teachers to identify and explore the problems themselves.[17] This was in line with PDIA's emphasis on developing ownership and capacity for teachers' reflection on their practice; and avoiding mimicked solutions. In these experiments teachers broke through to a new understanding, on several fronts. A key one was that the problem likely lay with the limitations of their own teaching. But most teachers did not have the technical knowledge to identify the nature of the problems obstructing reading development, or to develop solutions that made any significant difference to students' reading skills (INOVASI 2019). Similarly, in mathematics, many teachers were confused about the curriculum content, particularly teaching of division and fractions in grades 3 and 4. Their own solutions, creating games and teaching aids, sometimes misunderstood the concepts and further complicated the teaching.

INOVASI learnt some important lessons from the Guru BAIK pilots (INOVASI 2018). An obvious lesson was that in a field like learning to read, technical solutions do need to be introduced if they are not already in place. Another was that Indonesia's mathematics curriculum was too abstract, the learning progression was too fast. As shown in Chapter 2, of this volume, literacy and numeracy have their own discipline knowledge of what works for students' progress. The consequent adjustment INOVASI made was to provide 'short courses' to develop teachers' skills —mainly in teaching reading in INOVASI's pilot schools, but also some pilots in numeracy. These courses were adapted from materials and approaches developed in earlier projects, such as the USAID-funded PRIORITAS and UNICEF's CLCC. But they were extended over a much longer period than the previous approaches, and

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[17] Guru BAIK is an INOVASI acronym for the qualities of the ideal teacher— a teach who learns, aspires to improvement, is inclusive and adapts to context. (Baik = Belajar, Aspiratiif, Inkusif and Konaketualual.)

they incorporated a classroom action research approach.[18] This allowed for the solutions to the problem to be adapted to the teaching context, by and with the teachers, trialled in classrooms, reported on and reflected upon. Notwithstanding this approach, a 'short course' kind of activity was a change in approach that could be (and was) felt to be a 'project like' implementation (INOVASI 2020; Nichols and Bodrogini 2019). An alternative view of it, in the face of contextual realities, is to see it as responsive programming. It may show the value of not ruling out a class of activities that does not fit the 'paradigm' but meets the program objective.

The second important lesson was the impact that INOVASI's approach to problem identification had on teachers and authorities. One of the problems identified was a 'cultural' problem, which fell in the 'acceptance' category in the Triple A framework. Many teachers saw their role as being to implement the curriculum. If some children can't keep up, that is not their concern. In building capacity for problem identification, INOVASI used Carol Dweck's Growth Mindset theory to shift teachers from beliefs about fixed levels of student ability, in which some children are viewed as unable to learn. In place of it, teachers were led to explore assumptions behind their practice (Dweck 2006). It was the process of probing assumptions that broke down this particular cultural barrier to effective teaching; and enabled teachers to engage with a good practice solution new to their experience.

Another realization was that, even when cases of positive deviance were discovered, they could not be adopted or scaled out without working at the organizational and policy level. Most mass employment systems depend on organisational authorisation and institutional incentives for changing practice at scale rather than the contagion of good peer practice. INOVASI needed to use PDIA approaches at the system and policy level to support scale-out (Heyward 2018). In the first iteration of Guru BAIK, teachers were selected to participate in the pilot from a

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18 The term 'short course' was intended to differentiate the approach from that of the earlier projects, in which training was delivered as a block over several days. The first literacy short course was inspired by, and borrowed from, an extended literacy training course developed under the PRIORITAS project., RTI International (2016) Pre-Service Teacher Training Course on Early Grade Reading and Writing; developed under the U.S. Indonesia Teacher Training Institute Project (TTIP) Florida State University Learning Systems Institute; University of Semarang, Indonesia.

range of schools spread across the district. Principals and school supervisors were not initially involved. As a result, impact was limited to those participating teachers, did not scale out, and was felt to be at risk of not sustaining. This first pilot focused on the technical ability component of the Triple A framework and overlooked the political and cultural elements. The Triple A framework suggested that local authorities, particularly school heads and supervisors, should be engaged to ensure authorization. Similarly, acceptance was lacking in a collectivist culture: teachers were unlikely to sustain or scale out change when acting alone, without the support of a community of practice – either school-based or cluster-based. As explained in the next case study below, later iterations of Guru BAIK, and other pilots, worked closely with local government to develop supporting regulations, used the existing teacher working group structures (KKG), and involved school principals and supervisors.

But perhaps the most important lesson was the generative power of local ownership —even of an introduced solution to teaching literacy. Guru BAIK was seen as a method for teaching problem solving as a process which can be applied to any problem. This differs from teachers being taught a new 'best practice' methodology but then hitting a roadblock and not knowing how to problem solve, giving up on it and going back to old methods. The change in teachers' attitudes, the insights they gained through exploring the problem of learning made a strong impression on teachers and local authorities alike. The provincial government of NTT decided on the adoption of the Guru BAIK process for teacher professional development programs in 2019. It is possible that one of INOVASI's later successes — the widespread scale-out by education authorities both subnational and national, of a differentiated learning approach—derives from the experience of this probing of mindset and of what matters, and the resulting sensitisation to the different paces at which children learn. This scale-out even led to organisational change initiated in schools in West Sumba by teachers themselves (Box 1). INOVASI's later literacy pilots produced better outcomes than their baselines; but it was notable that teachers who had undertaken the Guru BAIK as well as the literacy pilots out-performed others in terms of their students' gains (Purba and Sukoco 2019).

From this experience INOVASI developed a distinctive emphasis in its application of PDIA, one in which mindset change - that "reflective shift in collective consciousness" as Andrews called it (Figure 2) - became the first and most consequential step. This is the acceptance component of the 'Triple As'.

Notwithstanding these important successes, the experience of Guru BAIK led to a key strategy shift in INOVASI's approach to influencing change in teaching and learning. Problem exploration in PDIA is better designed for generating collective consciousness on the feasibility and desirability of change, among stakeholders at all levels, rather than to resolve problems that are primarily the technical difficulties of one set of stakeholders: teachers. Over time, the use of PDIA to co-design solutions at classroom level became less a feature of the program. INOVASI moved in the second part of Phase I to applying PDIA at a system level to support teachers' improved know-how. This shift brought together the two programs'

Box 1.

Excerpt from interview with early grades teachers SD Masehi 2 Waikabubak, West Sumba, 26 March, 2019.

In my Class 2, of 26 students I have 12 who had to stay back from class 3. Before INOVASI we had different ways of teaching children to read the letters of the alphabet. They learned it through A to Z by rote. They could do that. But if we mixed up the letters, they didn't recognise them.

After INOVASI came, we grouped children by the problem they had: a letter group, a syllable group, a word group. We split all the grades up to grade three into these groups. I had 14 children in my group who could not recognise the letters, Ibu Esy took another group. Ibu Nia took the word group.

We brought in the subject teachers to help out.

So that group of 12 children I had in my class who stayed back, after we did this, they all now have got their letters, they can work out syllables and now have moved up into the word group.

approaches to policy and system influence (mainly led by TASS) and the grass roots approach to finding local solutions (mainly led by INOVASI).

Case 2: The political context of improving teaching

The 2003 Education Law provided the legislative framework for education after decentralisation. In this law the district shares responsibilities with the national ministry for developing teachers, amongst other core elements of the system. It has been observed however that "the decentralization of government functions, was not followed up with equipping subnational governments with the capacity to produce public goods" (Nasution 2016). Teacher quality is the largest element in the public good of education as shown in Chapter 2, and "the biggest core issue in the political economy of Indonesia's teacher workforce" (Nichols & Bogrodini 2019: 10).

District institutions for supporting teacher quality do exist. Teacher working groups (*Kelompok Kerja Guru*—KKG) are a local institution for teacher support that all teachers can potentially access. As a mechanism for teacher collaboration close to their sites of practice, KKG also fit what is known about effective modes of professional development. The

Box 3: Capability building in process: excerpt from the trial report, Central Lombok

From the first the JA facilitator feared the technical team might not pull off the right kind of manual and maybe it would become just another example of isomorphic mimicry. And the early draft looked like that. But the facilitator kept it, at often raising questions like: "Do you think that is a realistic requirement for the organisers and the cluster teachers?" And often asked the head of the cluster (who was a member of the technical team): "Pak/Ibu, do you think that point is necessary? Will it help or make things more difficult?" and so forth. Finally, according to the technical team and the facilitator, the final version of the new a manual was succinct, simple and practical.

Box 2: "Jalan Andrews" operationalisation of PDIA

1. *Raise the profile of the problem as one worthy of political and bureaucratic support.*

2. *Get high authorisation for addressing the problem; and a nominated task force accountable to the authoriser.*

3. *Support formation of a leadership team with different organisational perspectives and relevant skills.*

4. *Help break down the problem to identify a feasible, time-bound goal; and rank each subproblem for its criticality and accessibility.*

5. *Produce progress reports for two-week work spans that drive progress, motivation, and empowerment.*

6. *Set a six-month deadline for the problem solved!*

KKG are dependent for viability on non-recurrent funding from the district and on schools supporting their teachers' participation. This was forthcoming in 2018 when districts across all four of INOVASI's partner provinces allocated substantial funds for scaling up INOVASI's KKG-based pilots for the following year. Evidence of district interest in and capability for monitoring teacher quality and its effects on learning was also shown in different mechanisms that some partner districts of INOVASI developed for informing themselves on teacher and student performance, before the COVID-19 pandemic (INOVASI 2022. Six District Baseline Study). These actions demonstrate the potential of local authorities for management of teaching and learning improvement. The same applies to large school networks of local Islamic communities, Muhammadiyah and NU Ma'arif, also hirers of teachers, and interested in the data on teaching and learning improvement.

In Phase 1, INOVASI worked to expand the potential of the KKG system - and the Islamic school networks - to improve teacher quality. Later, in Phase 2, the Ministry of Education sought to further expand the systemic potential for teacher learning, encouraging schools, districts and teachers to form 'learning communities' which may be school-based, cluster-based or based on some other grouping. The existing KKG remain one important option.

The first step in Phase 1 was to make the problem of low teacher capability matter. Evidence from the pilots on poor learning outcomes and teachers' lack of know-how in teaching foundational skills was the means by which the problem came to matter to district stakeholders. Supporting districts to improve the quality and accessibility of KKG and its recurrent funding, hence became the dominant strategy in the latter stage of INOVASI's Phase I. However, INOVASI strategy testing in 2019 indicated that progress on this institutionalisation of teacher working groups had not gone much beyond districts' provision of funding and policy support, leaving still untouched the challenging problem of how to improve implementation of KKG. District authorities have long been accustomed to defer to the centre on the how of teacher quality improvement, even though the 2003 Education Law allocates equivalent responsibility to both levels of government for this provision. Related to this, the capacity of districts to manage and

provide teacher quality improvement was generally lacking – or untapped. Many district officials were eager to know what they could do; they knew they had a problem and they looked to INOVASI for help to solve it.

At all levels the programs depended on the conversion of the stakeholder to the need for change—on mindset change.

To advance institutional reform, the INOVASI team had assimilated the power of PDIA's Triple A prerequisites for success: gaining authorisation, winning acceptance on the part of implementing stakeholders; and developing capability to resolve the problem. In the pilot work with teachers, the team had successfully used with stakeholders the 'fishbone' technique of breaking down the problem; and were familiar with the theory of 'small bets' iteratively expanding the design space opened up by analysis of the problem.

INOVASI had recourse again to the 'case book' guidance of PDIA for operationalising all these precepts in supporting the KKG at a systemic level. This resulted in the trial of an approach that the team called 'Jalan Andrews' (Andrews' way), based on a Sri Lankan case study by Matt Andrews that set out procedural steps for building government capability around an identified problem.[19] The ambition behind this trial was to develop district-level pilots of local management capabilities for identifying and addressing systemic gaps in support for teaching and learning.

Andrews' Sri Lanka case study modelled the procedural conditions of success. In this way, Jalan Andrews was also a trial of the implementability and the effectiveness in our context of the 'practitioner' guidance in the PDIA model. The procedure, paraphrased from the case study, is outlined in Box 2.
Four district trials were developed. Two of them survived the goal-setting stage of the trial.

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[19] Matt Andrews, 2017. Learning to Target for Economic Diversification: PDIA in Sri Lanka. Center for International Development at Harvard University Faculty Working Paper No. 332.

In one of those, the focus was development of a simplified manual (juknis) as the basis for establishing effective teacher working groups. The complication of the existing manual disincentivises KKG setup and management. A district-level task force formed for Jalan Andrews decided to develop guidelines based on consulted needs. It surveyed stakeholders, wrote and rewrote a manual, received endorsement by the head of the district education office and, with his authorization, successfully trialled a reformed KKG in two sub-districts.

In the other district pilot to complete, the problem was the level of Grade 6 illiteracy in remote schools and the sub-problem, remote teacher access to effective KKG. The solution was to provide trained facilitators at the level of the school cluster *(fasilitator gugus)* in such cases. This required stakeholders to recognise and accept the budget implications of that solution. Provision for these quality features of the Grade 6 KKG were integrated into the district education budget at the end of the six months' Jalan Andrews trial.

Both improvements were relatively 'small bets,' but as evidence of stakeholders breaking free from established rules of the game, they were tipping points, empowering entry into wider changes to the way things are done.

The successful trials testified to the effectiveness of PDIA's practitioner guidelines in most respects. In summary, they illustrate a contextually appropriate adaptation of PDIA. Making the problem matter to district authorities is possible: it requires seizing opportunity; insight into the conjunction of the leader's interests with the proposed reform, and informal relationships as well as formal approaches. If informal relationships are close, one of the cases showed that even political resistance can be finessed.

The government's leadership team did not submit to the Jalan Andrews discipline of pressured schedules and timeframes but assigned the task to a technical team. This was an element of the model that does not fit the context of government leadership in Indonesia. An inference drawn from this and other experiences is that PDIA's process of problem identification and exploration of solution works through the conversion

of trusted bureaucrats to the model; and their delegation of the process to a team.

Discussions within INOVASI were unresolved as to whether the program should aim to have government adopt PDIA as a management tool, or whether PDIA was essentially a tool for the development program. While one member of the national government did join the online PDIA course, and the approach was clearly intended to empower government agencies to solve their own problems, INOVASI has had limited success in having government adopt PDIA as a decision-making practice, perhaps because of its incompatibility with the tight time frames bureaucrats have to respond to policy issues. A notable exception, discussed in Chapter 5 Reading Books, is the success of its use with the Ministry for Education for mapping the problems of affordable book supply to remote communities. While the process was not explicitly referred to as PDIA, the appropriateness and effectiveness of PDIA in this context were clear. This was likely because the dimensions of the problem were truly unknown at that point to policy makers, new to encountering affordable book supply as a problem, and time was allowed to work through the process without top-down deadlines being set.

Notwithstanding the limited take-up of PDIA as an explicit methodology for government, a technical team is listened to by persons with high authority if the work is compelling, and if authorised by high-level authority. New technical and attitudinal capabilities to enable systemic improvements can be built at the level of a technical team. The value of involvement of a leadership team at a higher oversight level was in widening the scoping and profile of the problem and engaging relevant other agencies in its solution.

Finally, the emphasis in all Thinking and Working Politically literature on the importance for success of the political intelligence, facilitation and capability-building skills of the program team is well borne out by INOVASI's two successful cases of Jalan Andrews. While the two unsuccessful trials did support the strategy of small bets, they did not succeed because the framing of the goal for change of the trial was unmanageably large and complex. The lessons from the four Jalan Andrews experiments later informed national policy in important ways,

as described in the third case study below. Implementation of the Ministry's *Merdeka Belajar* reforms will require buy-in, ownership, at district level, and the successful experiments had shown how this can be achieved.

Case 3: The development context: adaptation to critical junctures

'Critical junctures' are defined by Leftwich as events or contingencies which provide opportunities for change that would be less likely under other circumstances (Leftwich et al. 2011: 9). In Chapter 2 we discussed how reform can be triggered by a change in the context: a socioeconomic crisis; a high profile, critical report of system performance; or a change in leadership (Barber et al. 2010). The third element that influenced the development approach in the program were two contextual changes underway in 2020. One of these was the COVID-19 pandemic. The other was the articulation of the Ministry of Education's own reforms to teaching and learning.

At the subnational level, by the end of INOVASI Phase I, the program was witnessing a significant take-up by partner districts of promising practices that had emerged from its pilots. As described in Chapter 2 of Volume 1 in this series, districts in all four partner provinces allocated significant sums for scale-out of successfully pilots, including literacy programs by means of teacher working groups; supported by policy and regulation. TASS had helped the central government include learning quality and equality indicators and measurable literacy targets in the national mid-term development plan (RPJMN) and the Ministry of Education's Strategic Plan (Renstra) for the first time in such planning documents. It had supported the development of a teacher competency framework that could apply across the whole teacher workforce. With the integration of INOVASI and TASS in Phase II, a key agenda was to achieve the strengthening of district systems for sustaining the quality of the pilot practices at scale-out; so that districts could demonstrate to the Ministry of Education that they had the capacity to lead quality improvement in their own contexts.

The COVID-19 pandemic began in Indonesia early 2020. By March 2020 the pandemic had resulted in school closure, which continued intermittently for the following 18 months. District authorities and

teachers were consumed by the need to keep learning going for all students; and education budgets at district and school level were diverted from scale-out to meet the costs of safe learning in the conditions of the pandemic.

Unexpectedly, the pandemic also created conditions for educational leadership to emerge at the district level. Only local authorities could encompass the contextual challenges of access to learning without schools. Most significantly, the disruption of the normal led in some districts to local authorities regulating what curriculum to follow and providing guidance for its use to support essential learning.[20]

INOVASI's role and priorities changed in these circumstances. The COVID-19 pandemic created the need for INOVASI to channel its assistance to supporting the educational leadership of the district. It became the implementing partner of district authorities in guiding the remote teaching and assessment of essential literacy and numeracy skills; and in facilitating the adoption of these priorities for learning recovery when schools re-opened. In this way the program met its technical agenda for influence at far greater scale than had previously been anticipated. An INOVASI survey conducted mid-pandemic (April 2021) of the capability of the six districts to support teaching and learning found evidence of an increased interest in policies and practices for promoting student learning, policy prioritisation of literacy skills, institutional development of the KKG for teacher professional development; monitoring in some districts of learning outcomes at district level, and in several partner districts, partnerships with provincial education authorities in provision of support (INOVASI 2022). INOVASI played a significant role in building district capability in this period.

The disruption caused by the pandemic also opened the way for the Ministry's major reform program at national level: especially changes to curriculum and assessment, both of which are politically fraught areas for reform, as discussed in the previous Chapter 2. The Minister of Education's leadership of transformative reforms to teaching and

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[20] The national government in 2020 issued a joint decree (Surat Keputusan Bersama—SKB) which included requiring teachers to reduce the curriculum load and focus on essential learning only during the pandemic.

learning, is the other change in context that affected the way INOVASI has been thinking and working politically since the start of Phase II.[21] INOVASI's pilot models of teaching and learning were a formative influence on the policy environment in which the new Merdeka Belajar agenda was developed; and there is evidence of, and acknowledgement by the Ministry leadership of, INOVASI's influence on the *Kurikulum Merdeka* itself through feedback from research on students' levels of proficiency on foundational skills in the predecessor curriculum *(Kurikulum 13)*. This story is detailed in Chapter 6. Notwithstanding this engagement, the development of reform frameworks was far advanced before INOVASI was openly invited in as a critical friend, and thus INOVASI's focus shifted from policy development to implementation, a shift it was able to make due to the flexible development approach.

No situation is more desirable for a development program, than such leadership of reform on the part of government. Supporting its success magnified the 'helping' role that had been the modus operandi of TASS, particularly in view of the need to consolidate the reforms before the end of the present government administration in 2024. This resulted in the program's major investment, drawing on the Phase I pilots to develop modules, teacher guidance and materials to support the translation into practice of *Kurikulum Merdeka*, and its very different approaches to teaching than teachers are used to.[22]

This turn to implementation in INOVASI's way of working is evidence of program adaptability to 'critical junctures' in the development environment. INOVASI continued its strategic approach of supporting leadership, with the aim of enabling policy to be effective at the level of implementation. This intent was consistently in view since the program start. INOVASI's support for *Merdeka Belajar* consistently nudged in the direction of the feasibility of teachers and districts implementing

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[21] The new Minister Nadiem Makarim was appointed late in 2019.

[22] INOVASI has developed a total of 32 micro learning instructional videos and ..... all of which have nation-wide diffusion through the Ministry's *Merdeka Belajar* website.

these ambitious changes. It has consistently harnessed its support for the reforms to the more effective targeting of literacy and numeracy improvement at the level of the classroom. Nowhere is its effect more powerfully shown than in the 'nudging' of the messaging around the new *Kurikulum Merdeka* as the means for learning recovery of essential skills at school re-opening. This authorised a focus, nationwide, on foundational literacy and numeracy that was critical for early grades children, due to school closures. In supporting district leadership in learning recovery, INOVASI's political

> **A case of embedded helping**
>
> An example of this approach is helping the new Director-General of Teachers and the Education Workforce translate his imagining of a competence-based teacher workforce into an effective structure for workforce quality improvement. TASS convened sessions critically exploring Australian experience of teacher standards. This collegial discourse, the alternatives canvassed, the consultations— all resulted ultimately in the drafting of the Indonesian Teacher Competency Framework —"a dream realised", in the words of the Director-General. As was seen in the chapter on *Merdeka Belajar* in Volume 1, the significance of this Framework has expanded with INOVASI's support in Phase II to play a key role in the integration of the current reforms of teaching and learning in teacher management.

strategy was to ensure the authorization at district level for changes to curriculum and assessment, crucial to effecting any reforms, as the history of curriculum change in Indonesia shows.

This PDIA-like approach is more politically astute, more assertive than the early interpretation of PDIA in *Guru BAIK* pilots; it is more prepared to take a lead, to influence leadership and create authorization at subnational level for a reform agenda. Generally speaking, national ministries are already able and authoritative, but the third of the triple 'A's — acceptance of its policies —is where INOVASI needed to focus. At subnational level, the focus was on building authorization and capability— the 'ability' component of the 'Triple- A'.

In Phase II the approach that TASS developed of 'embedded helping' also evolved in the contingent space of government-led reform. 'Embedded helping' in the final period of INOVASI Phase II was about expanding the design space in desirable directions. INOVASI's responsive strategy was to prioritise the availability to government of team members with the political intelligence, policy know-how and relationships to see opportunities and risks for emergent policy. A case

is the teacher competency framework mentioned earlier. Teacher workforce reforms mean that the current segment of non-civil servant teachers, whose status excluded them from accredited professional development was being phased out. The progressive structure of competencies in the Teacher Framework provided an opportunity and incentive for all teachers at every stage of their career to participate in appropriately levelled teacher development. The risk that one of INOVASI's embedded advisors saw, was non-acceptance of the Framework by other government agencies, critical to teacher workforce management and quality. In his words, there is no finishing line for embedded help—continual engagement is needed throughout the dynamics of effective policy development (Interview with INOVASI advisor, January 2023).

More daunting still is the challenge of expanding the change space to include reforms which are not yet priorities of the government but are central to inclusive development. While the broad profile of the reforms to learning was inclusive, the real test of this feature of the program's TWP effectiveness was policy traction on specific kinds of disadvantage: gender-based, disability, locational and language disadvantage which were the program's flagship commitments to inclusion; learning for all. Without addressing these disadvantages and ensuring that all people, all children, are included in the reforms, success will only be partial at best. The following chapters indicate how effective INOVASI was in this area.

Conclusion

This chapter set out to profile the principles and strategies that TASS and INOVASI adopted to pursue their goals. Its aim is to help the analysis in successive chapters, of how both programs had an effect on the reform of education policy in the areas targeted by the program—curriculum and assessment, teacher development, supply of children's books for reading, disability and gender equality, and social inclusion. To that end, in this concluding section, we summarise the distinctive approaches that TASS and INOVASI used. If, in the following chapters, these strategies are recognisable in the way the teams went about trying to influence change, that will contribute to the development of evidence

that the development approaches of TASS and INOVASI, and their adaptive programming, are efficacious for reform.

INOVASI evolved its own take on PDIA. The strategies selected as replicable were used throughout INOVASI's two phases, guiding the program at both national and local levels in the development of systems and institutional capability for scale-out. It elevated PDIA's 'Triple A' insight —authority, acceptance, ability — to become the program's overarching strategy for success; from which flows the logic of local ownership, contextual fit, iteratively expanding the policy reform space with new capabilities—INOVASI's main selection from the PDIA toolkit. Like the TASS model, it put a premium on close, as well as formal, relations of advisors with stakeholders.

INOVASI also innovated on PDIA precepts. 'Making the problem matter' is its own contribution to local ownership. An asset here has been explicitly targeting 'mindset' through the problem-exploration process. Another is its strategic use of evidence— opportunistic and compelling ways of 'seeing' change in real conditions have had more impact on authorising leaders than the slower development of robust evidence. Another innovation, the 'SASSY' principle which emerged within INOVASI, was important to ensure that interventions and pilots were 'Simple, Affordable, Sustainable, and Scale-able'. A different kind of innovation — this time in the characterisation of the 'second orthodoxy' itself —is to propose that behaving like a project — that is, supporting a reform through an implementation crucial to the success of reform, is as much thinking and working politically as any other strategy of support.

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CHAPTER IV
TEACHER PROFESSIONAL DEVELOPMENT

CHAPTER IV : TEACHER PROFESSIONAL DEVELOPMENT

REPLACED 28TH OCTOBER

Sri Widuri & Mary Fearnley-Sander

Abstract

This chapter explores the development of a new model of teacher professional development which INOVASI found most effective in helping improve literacy and numeracy outcomes. Improving literacy and numeracy were seen as a necessary condition for improving student learning outcomes more generally. The focus of the chapter is on the value of this model to the present *Merdeka Belajar* reforms, which have so much potential to scale the transformation of teaching. In making this argument, we trace the history of different elements that made INOVASI's professional development model successful. These include the new unity of content and pedagogy in literacy and numeracy in teacher support—both and preservice teacher training; and the value of an approach to teaching improvement grounded in local experience and capabilities. Localisation includes the delivery modality for teacher professional development; the engagement with the problem by local stakeholders— both teacher training institutes and community. In the case of some of INOVASI's partner provinces, notably NTB, that led to coalitions supporting literacy under the government's leadership. The culmination of the story is how the dynamic of change ended up extending to the teacher training institutes themselves, starting a

reform of pre-service teacher training in literacy and numeracy. A flavour of this story is its NTB locus and the way that particular PDIA processes worked so successfully in this local context.

Introduction

Background to the problem

As explained in Chapter 2, teachers have the greatest effect on learning outcomes of any school variable (Hattie 2003; OECD 2005). Indonesia appreciated this early after decentralisation with the comprehensive Teachers and Lecturers Law 14/2005, providing for the professionalisation of the workforce. This significance of this law and the subsequent investments in teacher quality upgrades are discussed in Volume 1 Chapter 4. One of the nine components of the Teachers Law is: "A more systematic program of continuing professional development". Throughout all the regulations operationalising this law, this component has received scant attention compared with the investment in initial teacher certification. But with the interlinked provisions of the *Merkeda Belajar* agenda for improving teacher quality, the time for fulfilling that promise might have arrived.

This chapter focusses on teacher professional development in literacy and numeracy specifically. As is demonstrated in Volume 1 Chapter 3 the upgrade of qualifications initiated by the Teachers Law has not yet resulted in any noticeable improvement to students' low levels of literacy and numeracy proficiency, as assessed by PISA and national assessments of learning at primary level, including the government's own national surveys of student competencies (*Asesmen Kompetensi Siswa Indonesia* - AKSI, 2017).

Hence, as shown in Vol 2. Chapter 1, INOVASI's essential brief was to find out what teachers were doing in the classroom to see if that situation could be changed. To find out 'what works' to improve learning outcomes. INOVASI's point of departure in attempts to improve literacy and numeracy outcomes has been the teaching of literacy and numeracy.

Purpose of this chapter

The purpose of this chapter is to describe the contribution that INOVASI has made to the professional development of teachers for improved teaching of literacy and numeracy in early grades during its eight years; and how the program used Problem Driven Iterative Adaptation (PDIA) principles and practices to evolve its strategies in line with evidence of what works; and to meet the needs created by seismic changes in the development context. These are, first, the COVID-19 pandemic and, second, the emergence of the *Merdeka Belajar* agenda. In the final part of the chapter, we draw together insights from the experience as helpful to Indonesian governments, local communities and development partners to maximise the effectiveness of teacher development for implementation of the new curriculum.

The problem

Early situational analyses in partner provinces had established a root problem in early grades as lack of teacher know-how for teaching beginning reading and numeracy (Suryadama et al. 2016; Fearnley-Sander 2016; 2017). This was explicable given the absence of instruction in teaching literacy in the pre-service curriculum; and the absence of beginning reading or numeracy competencies in the early-grades curriculum framework for schools. The 2013 Curriculum assumed that students had the basics of reading when they entered Grade 1; and Grade 1 student textbooks were quite text heavy, as pointed out in Chapter 5. From 2015 the government was attempting to respond to low reading skills of students and the community as evidenced by initiatives such as the Ministerial regulation of 15 minutes reading before class and the government's National Literacy Movement (GLN). This movement aimed to promote literacy education across Indonesia by encouraging individuals, communities, and organisations to actively participate in literacy activities. The movement aimed to build a reading culture, focussed on increasing access to books and encouraging the reading habit at school, home, and the community. But it did not consider the deeper technical causes of inability to read fluently that prevented reading from establishing as a habit. Yet reading experts have shown for the last 30 years the connection between strong

foundational skills, fluency comprehension and higher order thinking skills (Guthrie and Wigfield 1997).

INOVASI's evolving response

This section describes INOVASI's evolving approach to teacher professional development for literacy and numeracy throughout Phase 1. It uses the PDIA Triple A framework (See Chapter 3) to suggest an explanation for the success of the strategies that INOVASI deployed through the changing context.

The pilots: building acceptance and ability

At the beginning of Phase 1, INOVASI applied PDIA processes in the form of an adapted action research model at classroom level to have teachers identify and solve the problem of students' poor levels of literacy and numeracy. Teachers in pilot schools were facilitated to investigate the problem, design a solution, reflect and iteratively adjust, based on feedback. This was the first pilot, Guru BAIK, launched in West Nusa Tenggara in 2017. As was described in Chapter 3 of this volume, the pilot was successful for shifting teachers understanding of where the problem lay —with their own teaching approaches rather than with the students. It improved teachers' classroom management and creativity in developing learning media. But the teachers continually faced difficulties in addressing content-related literacy and numeracy problems.

This experience led to the first adaptation in INOVASI's approach to teacher professional development. The second round of pilots in in early 2018 developed teachers' understanding of the foundational skills in literacy and numeracy and how to teach them. This round of pilots took the form of 'short courses' in which teachers learnt, applied, reported and reflected on the outcomes; and made more adaptations based on the interests and needs of the districts.

This round of pilots represented a different approach to teacher professional development, which persisted as INOVASI's model through both phases of the program. A major change in approach was the linking of content, pedagogy and assessment; and understanding the skills constructs in literacy and numeracy and how to develop and

assess those skills in early grades. As evidenced in Chapter 2 of this volume, effective teacher professional development encompasses several key aspects. First, it centres on teachers understanding these links and understandings (Timperley and Alton-Lee 2008). Second, this round of pilots also linked the delivery of professional development with actual classroom practices: between sessions teachers trialled in their classrooms what they had learnt in the training. Real world application is a key to fruitful learning experiences for teachers (Haug and Mork (2021). Third, the teacher professional development was conducted through teachers' working groups (*Kelompok Kerja Guru-*KKG), a local institution for teacher collaboration and exploration of their teaching with peers.

Finally, fostering teacher ownership and agency for their own professional development provides the foundation for acceptance of the process and recognition for the need of their own learning (Darling-Hammond 2017). This kind of collaboration is another hallmark of effective teacher professional development. Reflection and recognizing areas for improvement play a pivotal role in teachers' continuous learning. Teacher reflection was also facilitated by facilitator monitoring of classroom application. Besides helping to improve teaching this enabled the ongoing adaptation of materials, as facilitators learnt and reviewed together what worked in real classrooms.

From its pilots in all partner districts during Phase 1 through to 2019, INOVASI developed ten modules with a primary focus on literacy. Numeracy-based pilots occurred in 14 partner districts. The various pilots were differentiated across the program to address contextual variations influencing teaching—language transition needs, availability of children's literature, inclusion, leadership, community engagement, multi-grade teaching arrangements. In addition, INOVASI grantee partners created other modules and materials to be applied in the teacher professional development programs funded by INOVASI. INOVASI and its partners' materials combine content and pedagogy in literacy and numeracy.

INOVASI Phase 1 endline reports and scale-out data provide empirical evidence that the basic literacy and numeracy materials implemented

in collaboration with partner districts effectively contributed to improving students' reading proficiency. (Fearnley-Sander, 2020; Van der Heijden, 2020). This is illustrated by comparison of baseline and endline scores of the literacy pilots as measured by INOVASI's assessment of student reading literacy outcomes based on Early Grades Reading Assessment (EGRA) constructs. Figure 2 shows the improvement in the foundational skills of beginning reading, and Figure 3, the improvement in reading comprehension scores. The difference in the sample size for the foundational skills and the comprehension test is because only students who passed letter, syllable, and word recognition tests were eligible for reading comprehension test.

Figure 2 Percentage of students proficient in recognising letters, syllables and words (N=10,817) at baseline and endline, INOVASI Phase 1.
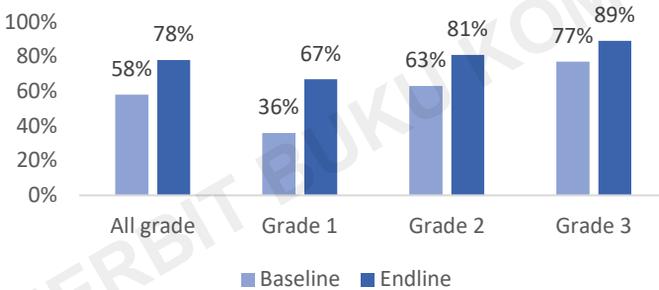
Source: INOVASI Activity Completion Report, 2020

Figure 3 baseline-endline. Average reading comprehension scores at baseline and endline, INOVASI Phase 1 (N=6,130)
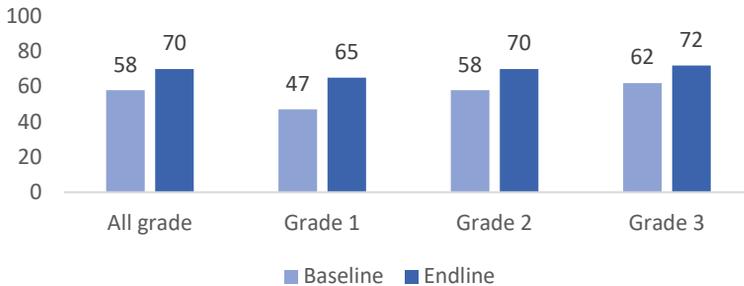
Source: INOVASI Completion Report, 2020

Comparative outcomes across the variants of the model are detailed in Chapter 5: Reading Books and literacy. District governments' monitoring results and school data on literacy and numeracy assessment collected in Phase II corroborate INOVASI Phase I findings, confirming the positive impact of training materials and approaches that merge content and practical pedagogy in basic literacy and numeracy.

Systematising teacher professional development: developing capability

As stated, these pilots were conducted in teacher working groups or in more remote areas in school cluster groups. They were mostly organised in a series of two-to-three-hour training sessions over six months, interspersed with in-school mentoring and reflection.

This change represented a key development in INOVASI's support for sustainable teacher professional development. From the second round of pilots onwards INOVASI's intent was to support partner districts to revive the district institution of the teachers' working groups (*Kelompok Kerja Guru* —KKG) to address the second of INOVASI's areas of investigation: the quality of support for teachers. KKG are a local institution for teacher support that are affordable at scale, if school grant support and modest district funding are allocated, and their school cluster formation allows all teachers to access them. They are fit for purpose as a mechanism for mass in-service support of the workforce. As a mechanism for teacher collaboration close to their sites of practice, KKG also fit what is known about effective modes of professional development.

During Phase I, creating a stronger systemic footing for KKG was a strategic intent of INOVASI. The program aimed to see district authorities develop policies for teachers' participation in teacher professional development, establish mechanisms for quality input, allocate funding for KKG from district budgets, and pursue official accreditation for KKG courses. INOVASI trained district facilitators for delivery of teacher training and classroom mentoring in literacy and numeracy instruction and other local priorities, such as multigrade teaching and language transition (for areas where local languages

predominate). The objective was for districts to recognise the need for institutionalising quality input to KKG sessions if they were to make a difference to classroom practice. These facilitators came from within the system: some skilled teachers, others, school heads or supervisors. The problem of sustaining their function as facilitators when teachers and school heads had full-time duties at school was unresolved in some districts by the end of Phase I. However, some provinces found solutions. North Kalimantan re-developed the KKG system for remote areas to align with a smaller grouping of schools in clusters that could be serviced by school heads. In NTB, skilled supervisors were cultivated as facilitators, because supporting teachers in this way is in fact one of the core functions of the supervisor. Many INOVASI-trained facilitators are now *guru penggerak*.

By the end of Phase I, 14 of INOVASI's partner districts had allocated funding for the KKG-based teacher professional development and established district policies to support literacy improvement. (Nicols and Bodrogini 2019:12). Monitoring of KKG was set up in Bulungan district in North Kalimantan and in Central Lombok; but not elsewhere. Several districts in North Kalimantan and NTT successfully negotiated with the provincially located Institute for Education Quality improvement (LPMP) for accreditation of KKG literacy and numeracy courses. This is important as it enables teachers to claim credit for the hours of training, which contributes to their career advancement.

During Phase II, the pandemic period strengthened this new district leadership of learning improvement. District leadership proved necessary to support teachers to manage delivery of the curriculum during school closures. This was especially the case with the option of the Emergency Curriculum which the Ministry issued to focus learning on the essentials for students while learning from home (Keputusan Menteri Pendidikan 7L9/P/2020). Teachers, accustomed to using the textbook as the curriculum, needed assistance to identify essential skills in the curriculum. They also needed help to use the modules for teaching literacy and numeracy provided for the Emergency Curriculum. Several districts issued a policy authorising the Emergency Curriculum as the district's choice. Many partner districts facilitated teachers' access to lesson planning that INOVASI developed for implementing this curriculum—the *Lember Aktivitas Kerja* (LAS),

which teachers rated the most valuable of all the resources for teaching that they had received from official sources during the pandemic (INOVASI 2022). In some districts, authorities established local online platforms for sharing resources, meetings and reporting on student progress. Nagekeo in NTT issued a policy mandating primary school teachers to conduct literacy assessments for all students. Other districts (Central Lombok and Bulungan) formed, and still continue, task forces to support literacy and numeracy development.

Diagnostic assessment and differentiated learning (teaching at the right level) were both an early focus of INOVASI's approach to improving foundational skills. This was because the sequence of skills for beginning reading and mathematics makes it important to know what skills students have acquired and what is missing, when assisting learners. However, it was during the pandemic that it became urgent to know whether students were still engaged with learning from home. When schools re-opened, diagnostic assessment was crucial for identifying and recovering learning loss. The practices of diagnostic assessment and differentiated learning were authorised as policy in some districts. Through their frontline engagement on the foundational skills of literacy and numeracy, diagnostic assessment, and teaching at the right level, partner districts showed evidence of their capability to lead the implementation of *Kurikulum Merdeka,* for which these are the critical knowledge and skills.

Creating ecosystems: expanding authorisation and acceptance

As well as working with districts, INOVASI also approached the institutionalisation of teacher professional development by working to expand the pool of providers available to local government for teacher support. In 2018, INOVASI started to partner with civil society organisations and universities in partner provinces to support the improvement of teacher understanding and practices of effective literacy and numeracy teaching, and to learn what works best to increase teacher professional development effectiveness. In NTB, INOVASI developed grantee partnerships with four teacher training institutes to support the local education authority. By the end of 2021 it

had facilitated these partners in forming an NTB-wide association of teacher training institutes (19 members).

The pandemic created the need to expand these partnerships, especially to reach children whose parents were not able to conduct home learning. The following account describes the way these partnerships were expanded in NTB. The same developments also occurred in North Kalimantan and NTT. Muhammadiyah also started to establish Memorandums of Understanding with teacher training institutes, civil society organisations, and non-government organisations to expand the benefits of teacher professional development for literacy and numeracy beyond INOVASI's partner schools, districts - and even provinces.

One of INOVASI's most strategic responses to the pandemic was to head off the risk of permanent learning loss by highlighting this risk and making the problem matter to stakeholders. First, it used research to catalyse engagement through compelling data. The most substantial of these undertakings was the Australian Council for Education Research (ACER)-supported Learning Gap Study (INOVASI 2022). This study had a powerful effect on the Ministry's advocacy for its reforms (see Chapter 6).

In combination with the human interest of local narratives, learning loss data provided a tool for galvanising local education communities around action. INOVASI saw, in its partnerships with teacher training institutes and local civil service organisations, a means of reaching teachers, parents and learners during school closures. In NTB, this approach resulted in a new, locally contextualised solution to address the risk of a generation of young students not succeeding in school.

INOVASI advocated for urgent interventions in literacy and numeracy with separate local teacher training institutes and civil society organizations. As a direct result, both groups swiftly initiated actions. A literacy volunteers' movement (RELASI) was formed deploying 1500 teacher training students to support the recovery of literacy skills for children whose learning would be affected by the pandemic. It was this collaborative effort led to the formation of the NTB Association of Teacher Training Institutes and the NTB Reading Consortium.

Additionally, INOVASI engaged influential local religious and political leaders, such as the former governor, Tuan Guru Bajang, in NTB, to spotlight the urgent issues of literacy and numeracy and capture the attention and support of more volunteers for literacy recovery.

These partnerships provided the organisational context for government counterparts to be able to collaborate with non-government actors as a coalition of support. INOVASI acted as broker for these new institutional partnerships between government and the community, helping the district authorities to strategically plan and manage the collaboration. As an example, after INOVASI's advocacy for numeracy in 2021 using the Learning Gap Study, Mataram University hosted a national numeracy seminar in 2023, highlighting the numeracy crisis within the province and exploring relevant strategies for keeping the momentum going and encouraging more actions in numeracy. This event encouraged the NTB Association of Teacher Training Institutes to plan quarterly meetings on foundational numeracy with district governments.

The *Merdeka Belajar* reforms also envisage the school as an eco-system, able to draw on this kind of local engagement for learning improvement. INOVASI successfully created an opportunity for national stakeholders to learn from the NTB example. In 2020, the Ministry of Education launched the *Kampus Mengajar* program to give students an opportunity to teach, and for trainee teachers to minimise the disconnect between pre-service and in-service teacher professional development in literacy and numeracy teaching. INOVASI was involved in the third, fourth and fifth batches of *Kampus Mengajar* in 2022-2023. After their second batch, the Ministry of Education approached INOVASI in NTB to deliver literacy and inclusive education training. In each of the batches, 16-20 thousand university students, including from teacher training institutes, were recruited and deployed throughout the country to contribute to the improvement of basic education, particularly in literacy, numeracy and inclusive education.

Expanding the design space: impact on preservice curriculum

Effective teacher education is paramount in equipping educators with the ability to foster literacy and numeracy skills among students. However, the courses offered by most teacher training institutes for Bahasa Indonesia are studies of language: the structure of language and study of literary works in Bahasa Indonesia, rather than addressing the development of literacy skills and how children acquire these skills. The same holds true for mathematics-related courses. Pedagogies are taught in different courses, such as teaching methodologies and learning assessment, but mostly focus on pedagogical theory. This has resulted in pre-service teachers often having a background in pedagogical theories but being unable to connect these to the classroom, and to literacy and numeracy teaching practices.

INOVASI contributed to the improvement of curriculum and the research agenda of pre-service teacher training institutions from Phase 1. In that phase, INOVASI collaborated with the education faculty (FKIP) at the University of Mataram (UNRAM), to run a pilot for disability-inclusive education in Central Lombok. This led to positive changes in the literacy and inclusive education curriculum and research agendas of the faculty's primary teaching faculty (PGSD). Seven courses under the primary school department in UNRAM integrated units from INOVASI's inclusive education training module, and the lecturers conducted three research studies on inclusive education. The success of this first attempt is what encouraged INOVASI to continue engagement with pre-service students in Phase 2. A thorough evaluation has not yet been conducted on the impact of teacher training institutes' engagement in improving pre-service teacher training quality. Nonetheless, there are indications of its potential to narrow the gap between the highly academic 'ivory tower' approach of teacher training institutes, and the 'swampy lowlands' of classroom reality that teachers wade through every day.

One instance that illustrates the narrowing gap is the experience of STKIP Taman Siswa, Bima, in 2021-2022. The university partnered with Bima district education and religion offices and INOVASI to implement the short-course training modules developed for INOVASI's

basic literacy pilot. The PGSD lecturers were involved mainly as administrators and in the monitoring and evaluation of the program. After six months, some of the lecturers were requested by the education office to become literacy trainers. In return, some of the high-performing district supervisors became guest lecturers in the college. The rector of STKIP said that the partnership was an invaluable learning experience for the lecturers, and the head of Research and Community Development reported that the exposure to the program has changed the way the faculty regard the teaching of reading. There has been a significant shift from more theories to content-based pedagogies. In January 2022, the college began trialling a new literacy course for its 100 literacy volunteers who took part in supporting students during the COVID-19 pandemic. In August 2022, the new Basic Literacy Course was officially added as a compulsory course for PGSD. Table 4 is a 'before and after' case study, exemplifying the difference made to the PGSD pre-service curriculum by exposure to INOVASI's model of teaching literacy; and the institution's own experience of working with real learners.

Figure 5 Case Study: Literacy related courses in SKTIP Taman Siswa Bima

Case Study – Literacy related courses in STKIP Taman Siswa Bima

The university has been offering the primary school teacher training (PGSD) program since 2013. The PGSD students need to complete 144 credit points to graduate. Every year, the program produces around 250 - 300 graduates who become primary school teachers, mostly in Bima, Dompu, and other districts in Sumbawa Island of NTB province.
Prior to engagement with INOVASI, Taman Siswa offered the following four courses related to literacy (in Indonesian language):
The science of Bahasa Indonesia (2 Credit Points – CP)
The basic concept of Indonesian language and literature (3 CP)
Indonesian language and literature learning for SD (3 CP)
Development of Indonesian language and literature for SD (3 CP)

Here is a comparison between 2 courses related to literacy in *Bahasa Indonesia:*

Indonesian language and literature learning for SD	Basic literacy (a new course)
Objectives – students are • Able to explain the nature of language and literacy learning Indonesian SD/MI • Able to develop multi-literacy-based Indonesian language and literature teaching media in SD/MI • Able to develop literacy-based teaching materials for Indonesian language and literature skills in SD/MI • Able to develop learning plans for Appreciation of Children's Literature in SD/MI	Objectives – students are • Able to explain the importance of phonological awareness in literacy learning in primary school • Able to apply learning strategies to read words according to students' ability levels in learning literacy in primary school • Able to identify the components of reading fluency and beginning reading in primary school • Able to conduct literacy assessment in primary school • Able to identify difficulties and solutions in managing classroom with multi literacy-ability in primary schools • Able to arrange student literacy learning steps according to level • Able to find sources for literacy lessons according to literacy levels of students in primary school • Able to make literacy media including big books according to level in primary school (C6) • Able to get in-service teachers' interest and inputs about media literacy media through end-of semester exhibition activities
Topics to be addressed: • The Nature of Language and Language Learning in SD/MI • Development of an Approach to Learning Indonesian language and literature for SD/MI • Development of multi literacy-based Indonesian language and literature teaching media in SD/MI • Development of literacy-based Indonesian language skill teaching materials in SD/MI • Development of SD/MI Children's Literature Appreciation Learning	Topics to be addressed: • Understanding and literacy skills • Introduction of sounds, syllables and words in class, as well as the importance of phonological awareness • Reading words (reading letters, sounding letters, reading syllables, and assembling words) • Reading fluency and initial reading • Learning Literacy According to Student Ability • Big Book and other literacy media • Literacy Activity Package for Group A Beginner Level & Letters (INOVASI package)

The course that was developed after engagement with INOVASI shows an improved level of understanding by lecturers on the importance of integrating content mastery (literacy acquisition) and practical pedagogy, such as assessment and the use of big-sized books for shared reading in the classroom. More courses such as these have been developed in partner universities in North Kalimantan, East Java, NTB, and NTT.

The *Merdeka Belajar* teacher professional development initiatives

This section looks first at the readiness of the *Merdeka Belajar* initiatives to become that "systematic program of continuing professional development" promised by the Teachers Law. It then brings out what INOVASI learnt from its experience of supporting learning over its eight years. From this analysis in the second part of the chapter, the discussion concludes with some suggestions for support that a future program might give to these new reforms.

The Ministry of Education launched its *Merdeka Belajar* program for transforming teaching and learning in March 2022, a transformative paradigm fully described in Volume 1 Chapter 6. Since that time, the Ministry has been working systematically on development of policy and systems to ensure a faithful and sustainable implementation. The arrangements for improving teacher quality are central to that project. In both scope and interdependence, the Ministry of Education's teacher professional development components look fit to fulfil the unmet promise of the 2005 Teachers Law.

The key elements of this professional development system are as follows. At the centre are the *guru penggerak* —a merit-based cadre of teachers, especially trained in the *Merdeka Belajar* agenda, who are responsible for scale out of the reforms. They do this through the establishment of learning communities in their own and neighbouring schools. The existing KKG may be utilized as learning communities. Teachers may also form their own learning communities, based on common professional interest or other criteria. Because all future heads of school and supervisors will be drawn from this source, the *guru penggerak* will take on the instructional leadership and mentoring role

for learning communities as well (Minister Regulation: *Permendikbud* 40 / 2021).

In their support to other schools, *guru penggerak* are responsible for assisting fellow teachers to access another new and significant professional development institution: the online platform (Platform *Merdeka Mengajar*, or PMM) which houses all the resources for the new agenda and all the materials for professional self-development. Already this platform is making an impact on teacher development at scale. So far, the PMM has been accessed by around 2.5 million teachers. This number surpasses the number ever previously reached in such short time by conventional face-to-face modes of training.

These *guru penggerak* are supported in their role of outreach to other teachers by a Ministry of Education institution located at the provincial level, the *Balai Guru Penggerak* (BGP), which also has the role of coordinating 'hybrid' (face-to-face and online) teacher professional development programs in each province. Also at the provincial level is the Ministry's institution for improving the quality of education; the *Balai Peningkatan Mutu Pendidikan* (BPMP), a rebadged institute,[23] whose role is to support district authorities plan and resource learning improvement, based on the data of the annual assessment of learning in the Education Report.

Tying the whole system together is the new Teachers Competencies Framework, replacing the old teacher standards emanating from the Teacher Law (Regulation16/2007). This framework has workforce relevance through its alignment with related reforms to teacher career pathways and structures for the teachers who are public servants. Once these reforms are completed, it is expected that the framework will be re-issued as the national education standards for teachers. INOVASI provided technical advice for the development of this framework, drawing substantially on the Australian Institute for Teaching and School Leadership (AITSL) model. Alignment with this framework is a pre-requisite for all aspects of teacher development, from pre-service

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[23] The BPMP were formerly called LPMP *(Lembaga Penjaminan Mutu Pendidikan)* – Education Quality Assurance Body.

education and induction through to in-service professional development, performance appraisal, and career progression.

Of particular interest in the framework is the five-level progression of competency: from basic to expert: *Lulusan* S1 (fresh graduate), *Berkembang* (developing), *Layak* (proficient), *Cakap* (highly accomplished), and *Mahir* (lead teacher). Under new arrangements (commencing August 2023) the BGP and BMPM are responsible to monitor and evaluate all professional development programs from all suppliers of teacher training, including development partners' programs. The BGP and BPMP will evaluate all professional development programs to ensure consistent use of the competency model and alignment with the teachers' profile and teacher training needs, based on teacher performance. Teacher performance is to be assessed, in part, by reference to the Education Report. The process is outlined in two regulations: GTK Decree on Operational Guidelines for Teachers Competency Models (2626/2023); and Guidelines for Continuous Teacher Competencies Development (4141/2023). If these interlocking elements are well implemented, the teacher professional development reforms will have provided a solution to perhaps the largest barrier to learning improvement in Indonesia.

The *Merdeka Belajar* reforms and Triple A

When considering sustainability and an authentic scale-out of these momentous reforms, it is useful to use the Triple A measures, explained in the previous chapter. The Triple A framework is useful to help appraise the extent to which reform process meets the three conditions for success: authorisation of these reforms at all levels, acceptance by the stakeholders affected by them, and ability to implement them as intended.

The acceptance principle

Acceptance by teachers is perhaps the most necessary, though not by itself sufficient, of the conditions. Effective teacher professional development programs empower teachers, fostering ownership, motivation, and responsibility for their own learning.

The *Merdeka Belajar* approach to professional development recognises the importance of teachers being able to 'own' their own professional development; to tailor their self-development and their teaching to their contextual needs. This aligns with one of the principles of effective teacher professional development mentioned in Chapter 2 and earlier in this chapter. Giving schools the freedom to choose which curriculum to implement, and the level of support they need for Kurikulum Merdeka, based on the type of implementation they opt for learning about the reforms builds this 'ownership' (***Mandiri Belajar, Mandiri Berubah, or Mandiri Berbagi*** - implementing changes; innovating on approaches, or being disseminators of change**)**. The self-selecting menu for professional development choice on the PMM platform also creates ownership. Meanwhile, the levelled framework of teacher competencies is intended to guide in-service providers to target the appropriate level and training needs for schools; and the Education Report gives an objective indication, based on students' performance, as to where teachers' professional development needs lie.

There is another process in acceptance however, which has been critical to INOVASI's success in the development and delivery of teacher support. This is the acceptance that comes from problem-based exploration of difficulties in collaboration with peers, which leads to ownership and confidence in undertaking change. Since Phase I, the development of training materials for INOVASI pilots has always been informed by a problem-based and participatory processes, where teacher representatives have a say in how the solution should be tailored to their needs. Meetings in teacher working groups, collaborative problem-driven improvement, applying new approaches in the classroom, and reflecting on the experience with peers, all facilitate a confident 'ownership' of learning. The new 'learning communities' led by the *guru penggerak* in their schools, KKG, and other networks could adopt this model.

There is also evidence of new forms of local peer groupings of teachers, or 'learning communities', that should be encouraged alongside more official sources of professional development. In North Kalimantan, groups of teachers 'meet' regularly on a social media platform to share their practices and get feedback from peers and trainers. Another grouping for teacher collaborative learning has emerged in partner

districts of East and Central Lombok of NTB where both the district education and the religion office agreed that teachers from schools and madrasah should work together. The establishment of village-based teacher working groups has resulted from this idea. There is a strong value-add to this model besides the obvious one of strengthening communication between two different organizations, namely the strong appreciation and support of village heads. Some villages even allocated village funds to support literacy training in the form of books that are stored in the village office and children in the village can access. The Ministry of Religious Affairs' Training Centre (BDK) is aiming to strengthen KKM (madrasah working group) by expanding its members to include teacher training institutes and Islamic foundations to support the implementation of *Kurikulum Merdeka*. INOVASI is supporting the Education Ministry's reforms by encouraging schools and madrasah in target districts to form, at least, a school-based learning community to improve teachers' preparedness for *Kurikulum Merdeka*. These local solutions fit well with the philosophy of *Merdeka Belajar* and should be encouraged.

Acceptance at the level of education authorities is critical to support reform. Whether the above model is adopted somewhat depends on how the training officials in the provincial teacher training centres regard their role. The trainers in BGP are very few in number compared with the great numbers of teachers. In NTB for example there are 17 trainers in BGP in NTB province for 91,357 teachers in the province (MOEC 2023). That scale may prevent province-based planners from adequate consultation, risking a one size fits all approach. *Guru penggerak* are local and can take on the role of consultative teacher mentors. But until they are appointed as heads of school or supervisors, when that role becomes their formal responsibility, they may run into the same difficulties as many of INOVASI's facilitators did; and have limited availability for training through competing responsibilities to their classrooms.

INOVASI facilitated training for school supervisors to mentor teachers and monitor learning outcomes in 2022 and 2023. The success of these efforts, particularly in NTB, NTT, and North Kalimantan, was recognized by national officials during provincial visits and influenced national policy implementation strategies. In NTB, for example, 142

district heads and supervisors were trained. These supervisors subsequently trained 150 school principals who then trained 1,152 teachers. Like teachers, many supervisors are underperforming but some are highly performing; and most would be responsive to development in the requisite skills. Involvement as local facilitators or *guru penggerak* encourages supervisors to integrate professional development elements into their supervision instruments and practices. Supervisors in NTB created an additional supervision tool that is student-focused in order to help teachers improve their practice in that regard. If supervisors are not included as a body, there is a risk of some institutional resistance to the reforms from this element.

In a joint-monitoring visit to Lombok in 2022, INOVASI, DFAT, and senior officials from the ministries discussed the role supervisors. Ministry officials met with supervisors and reviewed the supervision tool being piloted in NTB at that time. Drawing on this experience, INOVASI is currently supporting the Ministry (BSKAP) at the national level, to develop a tool for supervisors. A Director General Regulation, no 4381/2023, released in August 2023 on Supervisors Roles in Supporting *Kurikulum Merdeka* Implementation highlights the shifting roles of supervisors from 'controlling' to 'facilitating', and from input-based performance indictors (ensuring schools achieve the eight standards) to student outcomes-based indicators for literacy, numeracy, and character in the Education Report INOVASI had a significant role in influencing this change.

The Ability principle

This chapter has stressed the importance in literacy and numeracy professional development of combining subject knowledge (literacy and numeracy skills constructs) and pedagogy, focussed on how students learn those skills. However, it has not been a usual model in teacher development in Indonesia, as seen in the approach of the National Literacy Movement to improving reading. Although the initial training of *the guru penggerak* was sound in literacy and numeracy, their briefs for teacher development do not focus on the subject content of these two domains but on other features of professional behaviour. The trainers in the BGP tend not to have school experience or expertise

in literacy and numeracy; these trainers are experts in adult methods of learning.

The Ministry of Education has stressed the value of INOVASI's experiments in improvement of teaching and learning. In fact, the head of the Ministry's Education Standards, Curriculum and Assessment Centre (BSKAP) has called them 'the proof of concept' of *Merdeka Belajar*. INOVASI's materials and learning videos have been loaded onto the PMM's website. The guidance they offer teachers for teaching in line with the known progression of skills in literacy and numeracy is not starred as essential learning for teachers. And yet the experience of INOVASI during COVID-19 was that teachers needed concrete guidance in planning how to teach essential skills. Feedback on *guru penggerak* in the District Readiness survey (INOVASI 2022) indicated that many *guru penggerak* surveyed are still struggling with demanding skills, such as undertaking diagnostic assessment and grasping what the results are telling them. It will be important to closely monitor the teaching of literacy and numeracy during implementation to ensure that this primary principle of ability is being adequately catered for in the capability building of teachers for *Merdeka Belajar*.

The Authorisation principle

A very important part of INOVASI's overall experience is the willingness and ability of district authorities to take ownership and leadership for the improvement of teaching and learning. The success of the Emergency Curriculum during the pandemic was due to the ability of heads of district education offices, in most instances, to coordinate and support teachers' responses. While the provincial training centres (BGP) and the local education quality assurance centres (BPMP) work to implement national policy and fulfil central expectations, the ownership and authorisation that will matter to the thousands of teachers and school heads is at the district level.

On visits to INOVASI's partner provinces, Ministry officials have been impressed by the sense of ownership, and level of knowledge and professional engagement in learning improvement, that leading and middle-level officials have displayed in analysis of the implementation

of the reforms. This kind of authorisation and leadership is a key condition of success.

> **Box:** "We need to continue to learn together in managing change. By having a learning culture in the organisation, we can quickly adapt. We have learned new ways from INOVASI to partner with local governments and strengthen the education ecosystem in the regions. This new method can later be translated into a strategy for facilitating the regional government, which differs in each region, in taking on the role of a catalyst" Director General of Basic Education Dr Iwan Syahril, at the national workshop, 2022.

Insights

Reviewing the main emphases of this chapter on INOVASI's experience in supporting teacher professional development, three key lessons stand out. These three lessons are relevant to the most effective targeting of support for teachers in the implementation of *Merdeka Belajar*. The Triple A framework can be used to categorise the strategies that worked most effectively for INOVASI.
These three lessons are:

1. INOVASI developed effective strategies to create acceptance of change by teachers.

A particularly impactful strategy was enabling teachers to participate in identifying what they needed and in adjusting training materials to work for them in INOVASI pilots. INOVASI's materials gained strong acceptance at the subnational level because teachers and facilitators were given opportunities to reflect on the modules and suggest adaptation when necessary. INOVASI needs to continue work on illuminating the idea that engagement and building the capacity of local actors in the development and adaptation of training materials is a viable and decentralization-friendly model for a vast archipelago with over 500 districts. It is the growth mindset approach, a well-recognised precondition of effective teacher in-service development.

2. Increasing the technical ability of teachers released their creativity.

Teachers' understanding of the skills progression in teaching reading and number concepts resulted from the fusion in their professional development of knowledge about literacy and numeracy; and pedagogy. A most dramatic 'Ah Ha' moment for teachers in Phase 1 was when they recognised the skills basis of beginning reading, and quickly saw how they could support struggling students by identifying the weak or missing skill: this became the basis of strategies for teaching at the right level that they themselves invented for their schools.

Merdeka Belajar aims for its teachers to progress from basic to skilled and expert in its graduated Teacher Competencies framework; and that progression requires recognising the importance of subject knowledge as a pre-requisite of teaching skill. An important lesson for implementation of the reforms is that there is a need for much more focus on developing teachers' understanding of literacy and numeracy than is evident in teacher professional development for *Merdeka Belajar*.   The scale of this need requires the cultivation of local resources to take on this role. In all its provinces INOVASI has found that teacher training institutes are willing partners in improving literacy and numeracy – though both pre- and in-service teacher training. Support for partnerships between teacher training institutes and local education authorities is a key strategy for implementation of *Merdeka Belajar*, particularly to make a difference to students' proficiency in foundational skills.

3. Another key lesson is the feasibility of galvanising a local eco-system around learning improvement; and the resources it can release.

For this effect, the reforms need to be authorised locally. Authorisation in the Triple A context means not merely authorisation from the top, but at every level. An eco-system with all its local institutions — supervisors, principals, heads of clusters *(ketua gugus),* village authorities family welfare institutions—is the environment that authorises and motivates teacher change. The chapter has also shown how district authorities can deploy the resources of different local institutions to support the access of all children —in madrasah as well as in schools— and their parents, to literacy and numeracy development. As the pandemic showed, local leadership is best

positioned to develop solutions for more equitable access to the digital resources of the *Merdeka Belajar* platform. An implication of this for government and development partners is to focus on district authorities as leaders of a reforming eco-system.

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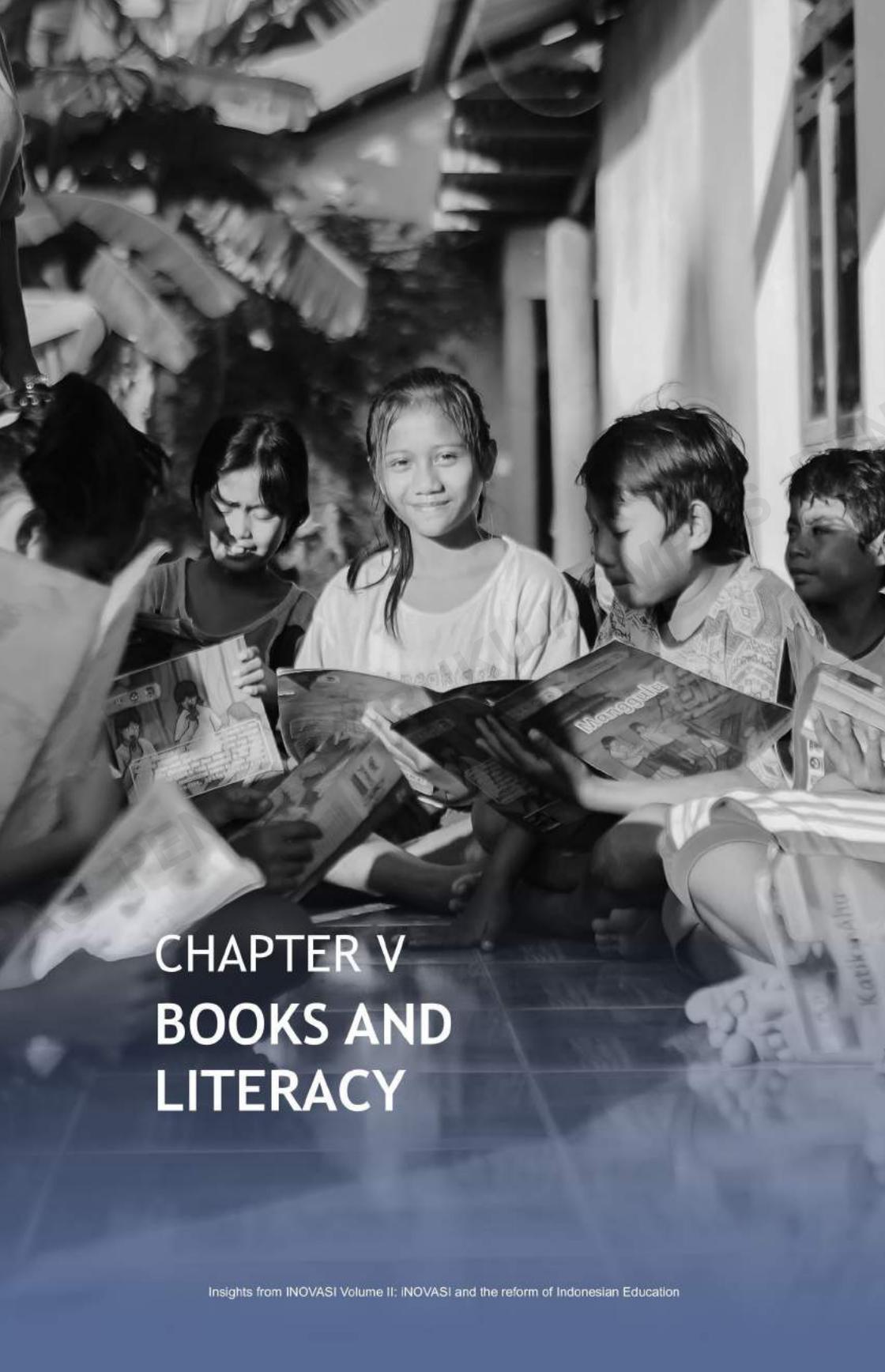
CHAPTER V
BOOKS AND LITERACY

CHAPTER V: BOOKS AND LITERACY

Handoko Widagdo & Stuart Weston

Abstract

This chapter presents a case study which began with local problem identification and contributed to national policy change. It begins with a review of current issues concerning the quality and availability of suitable reading materials and the constraints imposed on Indonesian schools related to funding and choice. In North Kalimantan, the low rates of literacy amongst early grade students were exacerbated by technical issues involving availability of quality books, distribution and rules that were not conducive for school purchases. The problem identification, as well as the subnational and national responses to the problem are discussed. With INOVASI's assistance, five significant 'solutions' were identified and actioned; (1) demonstrating on-the-ground evidence of the significant role of children's reading books in the process of children's literacy learning, (2) providing examples of high-quality children's reading books, (3) promoting the use of reading books in schools and communities (community reading centres/ village libraries), (4) encouraging the provision of books in schools in remote areas, and (5) providing input to both the central and regional governments on the formulation of book-related policies. The chapter concludes with a review of impacts from the program and future recommendations.

Introduction

In February 2020, just before the COVID-19 pandemic began, INOVASI was asked to prepare a policy brief, in the form of a slide-set, for one of the President's special advisors to present to the President. The focus was on literacy, why Indonesian children are underperforming, and what can be done about it. The presentation asked why are Indonesian children not learning to read? The answer drew on INOVASI's experience and pilots in Phase I: (1) there is no explicit curriculum for the teaching of reading in the 2013 Curriculum, (2) teachers are not familiar with a methodology for teaching reading, (3) the majority of children begin school not yet fluent in Bahasa Indonesia, and (4) there are no appropriate children's reading books in most schools. This chapter explores what INOVASI did over its eight years to address the last of these four problems.

Over recent years, the Government Indonesia has become concerned about the low level of students' achievement in international assessments of literacy, numeracy and science[24] Literacy is of particular concern as it is at the core of learning across the curriculum. Without adequate foundational literacy skills, students are unable to learn across the curriculum and in higher grades. Factors affecting the low level of achievement were discussed in Volume 1 of this study and include a low level of teachers' knowledge and skills in teaching reading and a lack of suitable material for children to read. Chapter 2 'Finding out what works to improve learning outcomes' of this volume emphasises the scale of the problem especially in remote and disadvantaged areas in Eastern Indonesia.

The provision of quality children's reading books is essential for the development of foundational literacy skills, as demonstrated in a wide range of international research reviewed in Chapter 2. Studies show that children simply cannot learn to read without sufficient reading material, and that the most effective reading material is matched to the ability of the student and engages their interest (Banerjee et al. 2016; Abeberese 2011; World Bank 2019).

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[24] This is explained in detail in Volume 1, Chapter 4 of this study

The purpose of this chapter is to look at the issues concerning book availability and use in Indonesian primary schools and discuss changes in the policies introduced by the Government Indonesia – specifically the Ministry of Education – to encourage the provision and use of books in supporting the development of children's literacy. The chapter discusses the contribution of INOVASI and its partners in promoting the provision and use of children's reading books as an important part of improving learning. INOVASI's programs developed innovations at school, community and district levels which can influence and serve as models for national policy. The last section of the chapter suggests policy priorities to increase the provision and use of quality children's reading books in schools and communities.

The problem

In order to learn to read, children need material to read at a suitable level of difficulty. However, most Indonesian primary schools rely mainly on textbooks for children to read and have few other books. The books they have, text and non-textbooks, are mostly unsuitable for beginner readers. The language is generally too difficult for the children to read and the books are uninteresting for children. What library books are available are rarely used to support learning in the classroom. The problems are particularly acute in rural and remote areas, where children's reading performance is generally poorer and more, not less support is needed. What has caused these problems and how severe are they?

How has this problem arisen?

The Government of Indonesia has long shown some appreciation of the importance of having books available in schools. During the time of the New Order (Orde Baru - 1966-1998) when Indonesia amassed a budget surplus due to the oil boom, the government printed and distributed children's reading books and established school libraries in most schools. However, these reading books focused mainly on stories of heroes, Pancasila and moral values and were designed primarily to reinforce Indonesian nation-building rather than develop reading skills and enjoyment of reading. Little attempt was made to match the topics

and language in the books to interests and reading ability of the children.

Before the issuance of the Regulation 22 of 2022 of the Ministry of Education, educational books were procured based on school levels. Books were categorized for early childhood education, primary school, junior secondary school, and senior secondary school. Such categorization was too broad especially at primary school level with the result that most books produced for primary schools assumed a high level of reader competence. Children who could not read or had a low level of competence in reading, especially in the early grades of the primary school had no access to books matched to their level of ability. Further, it was assumed that there was no place for illustrated story books in formal schooling, which commences in grade 1. Such reading material was regarded as 'entertainment' and appropriate for pre-school and early childhood centres but not for schools.

As described in chapters 2 and 6 of this volume, there have been many revisions of the curriculum over the years since independence. Before the Emergency Curriculum *(kurikulum darurat)* and Indonesia's new curriculum *(Kurikulum Merdeka),* none of the curricula encouraged the use in lessons of any books other than the textbook. Even the primary school textbooks designed to support these curricula in the early grades were already full of text (which it was often wrongly assumed the students were able to read). This was another important barrier preventing children in the early grades from having access to reading material that they could actually read.

Most schools have relatively few reading books other than textbooks. As explained above, the non-textbooks that are available are generally of poor quality, mostly not matched to the level of reading ability of the children. There is a lack of engaging illustrated children's stories and nonfiction books suitable for beginning or emerging readers. Many school libraries are full of textbooks from previous curricula, are usually unattractively arranged and act more as book storage spaces rather than as libraries.

Research conducted by INOVASI in North Kalimantan in 20 schools in 2018 found that while 85% children said they enjoyed reading, only 57% of children in grades 1–3 could pass a basic letter and word recognition

test, while 24% of grade 3 children were unable to read words (Heyward and Widagdo 2021)[25]. Their reading development was inhibited by a lack of books at an appropriate level and of suitable interest for them to read. Only 393 copies out of the 12,067 books in their school libraries were deemed as age-appropriate children's books. Meanwhile, in the Community Reading Centres near schools only 39 books out of 1,233 available titles were deemed age-appropriate (just over 3% of books in both cases).

Where library books are used, their use is generally confined to times other than during lessons (break times, before and after school). Outside what is regarded as *'pembelajaran'* or 'learning'. Few schools have traditionally allowed their children to take books home to read with their parents or siblings. Until recent years few other facilities for reading books outside school such as village libraries or community reading centres were available.

Bookshops such as Gramedia in the larger cities have started to sell more attractive and interesting books for young children with pictures and text to match their interest and ability. Initially, most of the books were translated from English, but there are increasing numbers of books from Indonesian authors. Unfortunately, bookshops are mainly situated in large cities and towns. There are few bookshops outside bigger cities, and in the eastern islands, making it difficult for schools in rural and remote areas to buy books. Most bookshops, outside the large cities, have few if any quality children's books available.

The government permitted schools to purchase books to using School Operational Assistance (BOS) funding. However, using government funding they were only allowed to purchase books on a list of books approved by the Ministry of Education's Book Centre.[26] The process of approval was slow, bureaucratic and could be costly. As a result, many publishers chose not to have their books approved, preferring to sell

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[25] Heyward, Widagdo (November 2021) "From little things big things grow: using data to drive education policy in Indonesia", DevPolicy Blog.

[26] The Curriculum and Book Centre (Puskurbuk), part of the Ministry's Research and Development Body (Balitbang), was restructured in 2019 to create two centres, Curriculum Centre (Puskur) and Book Center (Pusbuk), under the newly named Badan Standar, Kurikulum, Asesmen dan Penelitian (BSKAP). In this chapter, and throughout the book, we use the term Book Centre to refer to both Puskurbuk and Pusbuk.

them through bookshops to individual customers, private schools or state schools that are using privately raised funds.

In 2018, INOVASI conducted research on story books that had been assessed by the Book Centre, and approved under the Decree of the Head of the Research and Development Body of the Ministry of Education regarding story books for 2014-2017 period. The research suggested that there were not many story books that fell into the primary school category which were suitable for early grades. Although the number kept increasing each year, the number of book titles remained too small to be considered sufficient.

Table 5 Story book titles for primary schools approved by Ministry of Education 2014-2017

| Year | # of Books | Book Category | | | |
		Knowledge Enrichment	Skill Enrichment	Personality Enrichment	ECE Enrichment
2017	117	0	0	117	0
2016	69	10	0	19	40
2015 (1)	22	12	0	10	0
2015 (2)	16	0	1	10	0
2014	12	5	7	0	0

Source: *Studi Pemetaan Buku Nonteks Pelajaran yang Memenuhi Standar Kelayakan untuk Digunakan di Satuan Pendidikan Dasar dan Menengah 2014-2017 by Roosie Setiawan*

In September-October 2021, INOVASI conducted further research to provide a comprehensive illustration of the book ecosystem in Indonesia. This research provided an overview of various problems faced in the book ecosystem that were presented to the Minister of Education. Among the identified problems were the following: lack of appropriate levelling to address variable student literacy capabilities; the e-catalogue both enables and constrains access to quality storybooks; pricing for quality storybooks is out of range for most public schools; and very limited distribution outside urban areas.

During the era of Anies Baswedan as the Minister of Education (2014-2016), the Government of Indonesia issued the Ministry Regulation Number 12 of 2015 concerning Character Development. Based on the Ministry of Education Regulations, a reading culture in schools was to be fostered, and schools were encouraged to organise reading sessions of 15 minutes before lessons started.[27] This Ministerial Regulation did indeed stimulate reading habits in many schools. Sadly, this policy was not supported by book procurement matched to children reading skills. Books that were available in schools were still mainly textbooks for the various subject areas such as science and social studies.

INOVASI's response

Under the current Minister of Education (2019-present), the Ministry of Education has focused on improving student performance, especially in literacy, numeracy and science. To support the improvement of literacy, the ministry has begun to focus on the use of reading books to improve literacy. Previous curricula did not encourage the use of reading books other than textbooks during formal lesson times. The ministry has promoted three reforms for children's reading books: (i) providing books matched to the level of children's reading ability; (ii) increasing access to children's books; and (iii) including the use of children's non-textbooks in the curriculum. The reforms relating to children's reading books demonstrate the importance placed on children's reading books in achieving reading competence. Further details of the reforms introduced by the current minister are explained later in the chapter.

These reforms have been informed by pilot programs and studies undertaken by INOVASI and its partners that enabled the program to support the Ministry of Education in developing and implementing its reforms. Below is a description of several relevant programs and studies.

INOVASI advocated children's reading books as an essential part of the curriculum in achieving students' reading competencies. Since the

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[27] The development of reading habits using books other than textbooks was specified to take place 15 minutes before the start the school day as set out in Appendix of Chapter VI point 1 in the Regulation of the Minister of Education and Culture *(Permendikbud)* Number 23 of 2015 concerning Character Development.

beginning of the program, INOVASI working with partners, incorporated children's reading books as an essential component of literacy programs. Books that match students' reading ability increase children's interest in reading and thus are highly effective in improving foundational literacies.

INOVASI made contributions in the use of children's books with the goal of increased literacy competence for all students, as follows:

- Seeking evidence in the field that using good reading books in literacy programs would yield better results.

- Providing examples of quality children books.

- Encouraging the use of children's reading books by teachers and the community.

- Promoting the provision and use of children's books in remote areas including the use of digital books, especially when physical books are difficult to obtain.

- Providing inputs to policymakers at central and regional levels to increase access to children's books for children in schools and in the community.

A problem-driven approach to developing literacy programs

As explained in Chapter 3, INOVASI used a problem-driven iterative adaptation (PDIA) approach to support the Government of Indonesia and non-government partners find out what works to improve learning outcomes. The approach aimed to engage stakeholders in identifying and solving their problems with INOVASI support and thereby building a sense of ownership and capacity to address the problems in a sustainable way.

One such pilot program using a PDIA approach was the Literacy 1 pilot, which was implemented in 16 districts in 4 provinces between 2017 and 2019 to develop teachers' capability in teaching the elements of beginning reading. Teacher training modules were developed to introduce teachers to the teaching of component skills of children's

early reading ability. The modules covered phonological awareness; construction and decoding of words from sounds and developing reading fluency and reading comprehension. Prior to this, most teachers were entirely unaware of the building blocks of children learning to read and this was reflected in the absence of explicit teaching of reading in the national curriculum. The reading comprehension element in the course stressed the use of 'big books' for modelling and practising reading for meaning and for developing higher-order thinking skills, such as predicting and linking ideas in text.

In this pilot program INOVASI was supported by non-governmental organisations and private partnerships that provided books to schools as a critical element in improving reading. As with the teacher training pilot activities, these initiatives demonstrated to districts a sustainable means of addressing the book deficits in classrooms and communities, particularly in remote districts. Several of these partnerships ran in the same schools as the Literacy 1 pilots, facilitating book-centred approaches to learning to read. This was particularly the case in North Kalimantan, where the non-government organization, Litara, with its One Person, One Book program (OPOB) and the Asia Foundation, with its digital book program, helped INOVASI support the district policy of developing a literacy movement. In the four Sumba districts this function was filled by Rainbow Reading Gardens (Taman Baca Pelangi) that developed demonstration school libraries in each location.

Two other book pilots combined book supply with teacher development. In Central Lombok, the Pen Circle Forum (Forum Lingkar Pena) developed books to support inclusive teaching, designing books with sign language and modelling inclusion though the diversity of characters included in the stories. In two districts of Sumba, the Indonesian Children's Literature Foundation (Yayasan Literasi Anak Indonesia – YLAI) provided a sample of balanced literacy teaching through its levelled reading book program. It also modelled the shared and guided reading methodologies that enable teachers to put books at the centre of basic skills development and comprehension in reading.

The Indonesian Children's Literacy Foundation pioneered the development of levelled reading books for children in the early stages of reading. A total of 75 titles were initially produced, divided into six

levels originally for use in their school in Bali. These were accompanied by teacher's guides, student workbooks and teacher training materials[28]. The Foundation continued to produce books for early readers and worked closely with INOVASI in providing its books to INOVASI pilot schools and supporting training for teachers in the use of the books.

Impacts

North Kalimantan literacy pilot results

In North Kalimantan, a literacy pilot program was conducted in 2018-2019 in Bulungan and Malinau districts. The piloting combined three elements:

- training teachers to understand how children learn to read and to improve their skills in teaching reading

- providing 240 attractive and interesting reading books to each of ten pilot schools in order to boost interest in reading

- giving special support to students who had below average achievement of reading outcomes.

The piloting was conducted in 20 schools, seven of which were in Bulungan District and 13 in Malinau District. The combination of the approaches yielded significant results in improving students' learning outcomes in literacy as shown in Figure 3 below.

[28] In 2014 YLAI received a grant from USAID to adapt their books for wider use in Indonesia.

Figure 3 Results of literacy piloting in North Kalimantan 2018-2019

STUDENTS PASSING BASIC LITERACY TEST
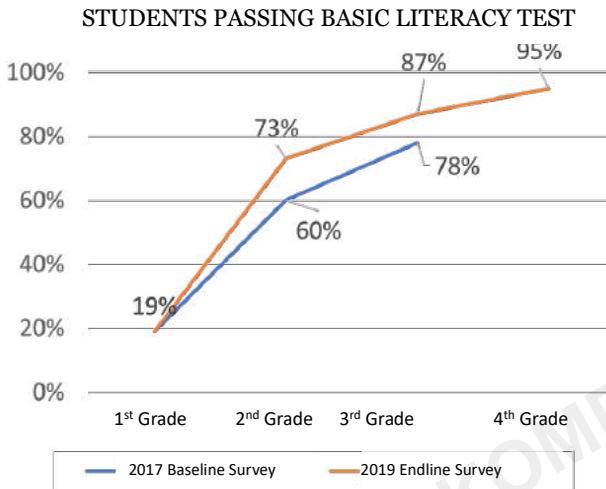
Figure 3 shows that before the intervention the percentage of children passing the INOVASI Standard Literacy Assessment (SLA) in Grade 1 was 19% in both the baseline survey and the endline survey as the children had yet to be exposed to the pilot interventions. In Grade 2 the percentage passing the test rose from 60% before intervention to 73% after the intervention and in grade 3 from 78% before the intervention to 87% after the intervention. Following the intervention 95% of children in Grade 4 were able to pass the test, which suggests that the vast majority of students had a good foundation of basic literacy skills on which to build to enable them learn across a range of subjects in the final classes of the primary school and in secondary school.

## The correlation between book availability, training, and literacy outcomes

In2020, INOVASI conducted a study to compare the impact of the literacy pilot programs according to the inputs they received: teacher training only (Literacy 1) and both teacher training and book provision. Table 6 compares the endline gains of the Literacy 1 pilot schools with and without special book provision.

Table 6 Comparison of endline gains of Literacy 1 pilot schools with and without book pilots

Literacy Measures	Literacy 1 baseline (%)	Literacy 1 endline gains (%)	Liyeracy 1 +book pilot baseline (%)	Liyeracy 1 +book pilot endline gains (%)
Reading Comprehension	61	6	50	9
Listening Comprehension	68	11	67	17

With similar baselines, the value added by including book provision pilots to complement the teacher training pilots for both grade one and two, compared to the plain Literacy 1 without book provision, shows student outcomes in reading comprehension increasing by a third higher than in the plain Literacy 1 (by 9% compared to 6%). There were similar results for listening comprehension (17% increase compared to 11%).

Figure 4 Percentage Changes in Student Literacy scores (Baseline- Endline)
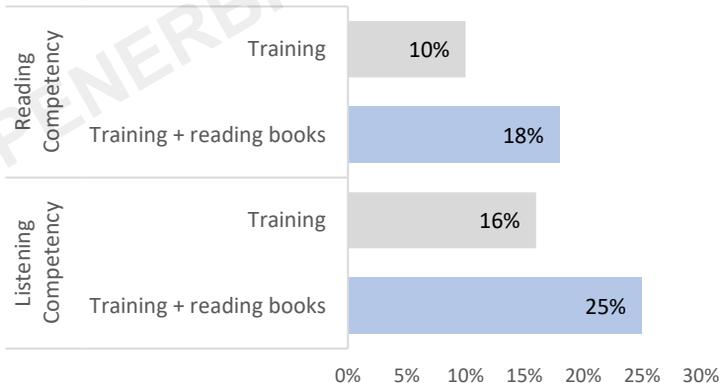
INOVASI's 2020 Thematic Study Report found that the availability of reading books (other than text books) in reading corners was more highly correlated with second grade students' reading achievement

than socioeconomic factors and the availability of textbooks.[29] INOVASI's study in 36 pilot schools in 16 districts in four provinces shows that literacy piloting complemented by the availability, provision and utilisation of children's books, as well as teacher training in utilising non textbooks in teaching reading, led to more significant progress for children's foundational literacy (Fearnley-Sander 2020).

The important, if unsurprising, lesson from the pilot programs and follow-up studies is that it is essential when providing appropriate reading books for children in the primary school to simultaneously train teachers in how to manage and how to use the books to the best effect to improve children's reading skills and their interest in reading. Doing one without the other is much less effective.

An adaptive approach

As described in Chapter 3, historically many programs funded and implemented with donor support have faded after donor support ceases. Reasons for this include the relevance (or lack of relevance) of programs to local needs and overall government policy and the engagement and commitment of government, school and community stakeholders in planning and implementing the programs, as well as continued financing after donor supports ceases.

INOVASI has sought to address all these issues. As mentioned earlier and explained in more detail in the chapter 3, its programs were based on a PDIA approach, where local beneficiaries were involved in assessing their own needs and developing and implementing the programs to address these needs from the very start. This approach was also effective in developing local ownership of programs at government and school levels. INOVASI coordinated closely with government at national level to ensure that its programs were in line with government policy and thinking and to give inputs on lessons learned from those programs in order to inform future policy making. In this section, we provide examples of the effectiveness of this approach at district level in North Kalimantan province.

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[29] https://www.inovasi.or.id/id/publikasi/studi-kasus-tematik-literasi-apa-yang-berhasil-dan-mengapa/

The first example is linked to the attempt by the Minister of Education, Anies Baswedan, to mandate 15 minutes daily reading sessions in schools. A major problem with the implementation of such a program was the lack of suitable books for children to read, especially at primary school level. INOVASI has been working with local governments in North Kalimantan since 2017 to identify the causes of low levels of literacy and running pilot activities to address the issue with the support of the local educational authorities. This included encouraging local governments to make appropriate reading books available to children. As a result, Bulungan and Tana Tidung districts made dramatic improvements to the availability of books in their schools. Beginning in 2018, Bulungan District consistently allocated funds for reading materials procurement through the Regional School Operational Assistance or BOSDA[30]. From 2018-21, as shown in Table 7 below, the local government allocated over IDR 2 billion for children's book procurement; schools in the district purchased over 47,000 copies of children's books.

Table 7 Funds allocated for book procurement in Bulungan District, North Kalimantan 2018- 2022

	2018	2019	2020	2021	2022	Total
Budget Realisation (IDR)	247,265,875	380,836,000	477,881,160	476,611,459	481,181,157	2,063,775,651
# of copies	5,225	9,842	9,350	12,681	9,972	47,070

Malinau District, in collaboration with business organisations in the district, utilised corporate social responsibility (CSR) funding. With a budget of over IDR 57.72 million they published six big book titles and printed a total of 720 copies of the books written by the local teachers. INOVASI helped coordinate the work of the CSR organisations, district and book publishers.

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[30] It was initially based on Bulungan Regent Regulation No. 14/2018 concerning Technical Guidelines for the Use of District School Operational Assistance Funds. Such regulation is still being issued every year until now in Bulungan.

Tana Tidung District allocated IDR 40 million of the Regional Budget to print 600 copies each of six big book titles. In addition, Tana Tidung Regent Regulation No 55/2022 concerning Guidelines for Allocation and Use of Village funds was used as the basis for Community Reading Centre budgeting, whereby each village was required to budget a maximum of Rp. 15 million for the purchase of children's reading books and simple teaching aids.

These examples are a good example of all parties involved pulling in the same direction. The minister mandated a program which addressed local needs. INOVASI supported this program and worked intensively to encourage local government to engage in and commit to the program. This resulted in local government providing financial support on an ongoing basis from their own and corporate social responsibility (CSR) funding. The role of local government in coordinating CSR funding is significant, as such funding has often been used for businesses to 'do their own thing' without engaging with local government and taking note of its or the national government's priorities.

Distributing children's books to districts

INOVASI helped procure children's books in its partner regions. The aim was to demonstrate the positive impact of book provision, while supporting improved learning outcomes in partner districts. In Phase 1 of the program from 2017-2020, INOVASI procured and distributed 64,942 copies of children's books in the four partner provinces at a cost of IDR 1.4 billion. Then, in Phase 2 (2020-present), INOVASI spent IDR1.9 billion to procure and distribute 106,300 copies of children's books in the four partner provinces. The book procurement for schools and Community Reading Centres in partner districts provided examples of quality books for schools, and effectively demonstrated the improvements in learning outcomes and literacy levels that can occur as a result of making books available and providing training for teachers in how to use the books. The increasing availability of interesting, appropriate, and attractive children's books, supported by teacher training in the management and use of the books helped raise awareness at the level of schools, local government level and the Ministry of Education. As described elsewhere in the chapter, it also led local governments in partner districts to invest substantial funding

from their own and from CSR budgets to increase book supply even further.

Supporting the Ministry of Education in providing access to children's books

Starting in 2015 the Ministry of Education supported the procurement of reading materials to schools through a Special Allocation Fund[31] regulated by the Regulation of the Ministry of Education Number 9 of 2015. The non-textbooks permitted to be purchased using the Special Allocation Funds were books approved by the Curriculum and Books Centre *(Puskurbuk)*. Sadly, the books purchased by schools using the Special Allocation Funds did not in general target beginner readers or those children struggling with learning to read owing to the lack of books at a suitable level of difficulty on the approved list for reasons explained earlier in the chapter.

In 2020 the Ministry of Education established the Quality Reading Books for Indonesia's Literacy program for schools in border, remote, and disadvantaged areas to address the shortage of children's books appropriate for children in the early years of education in those schools. The ministry was advised on the design and implementation of the program by a number of organisations implementing reading programs including INOVASI and its partners YLAI, Litara and Rainbow Reading Gardens. INOVASI's inputs were acknowledged in the text of the official launch documents in 2022.

The books given to the schools passed through a selection process including a screening for reading ability levels. The criteria for selecting quality reading books were very much informed by the work of INOVASI and its partners and were as follows. The books should:

(a) Have attractive and meaningful illustrations;

(b) Have interesting storylines that children can relate to;

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[31] Books were provided under the Special Allocation Funds (DAK), mechanism. These funds are part of the national budget and are allocated to regions with the aim of helping fund special activities which are regional responsibilities and in accordance with national priorities. Proposals for procuring books were submitted by each regional government (provincial and district). The types of books that could be purchased with the DAK budget are those that have passed the MoE Book Centre assessment.

(c) Be enjoyable for children to read, and engage and inspire them;

(d) Be related to children's interests and hobbies;

(e) Be matched to children's varying reading ability levels (in line with *Pusbuk* book levels explained later in the chapter);

(f) Include varied cultural representation and be appropriate socially and culturally[32].

This book grant program distributed over 15.3 million books and reached over 14,500 primary schools and nearly 6,000 early childhood centres.[33] Every school received 1,600 books, including books for Level A, B, and C (560 titles). The government spent a total of IDR 138 billion for book procurement through this Book Grant Program. As a result of the program, schools in remote areas that previously did not have books suited to their students' abilities and development stage received a collection of suitably levelled reading books.

In addition to book grants, and learning from the experience of INOVASI and others, the government program provided training and assistance for schools as program recipients. The training covered book management and the use of books. Book management training covered displaying, taking care of, storing, and rotating the books. The training in the use of books covered activities such as reading aloud, reading together, lending books for children to take home, utilizing books for extracurricular activities, and utilizing books for teacher training.

Using its experience from its literacy pilot programs INOVASI was involved as part of the national team that designed the training and developed the training modules. INOVASI also helped facilitate the regional training on the use of the books. At a field level, INOVASI assisted Nunukan District in North Kalimantan Province to manage the book grant program on an ongoing basis. INOVASI also developed several microlearning videos on the use of children's books and their integration into the learning process. These videos were uploaded to the

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[32] https://www.kemdikbud.go.id/main/files/download/5de55ec57263b5e

[33] Data were taken from the presentation slide of Nadiem Makarim, the Minister of Education, Culture, Research, and Technology, in Webinar Episode 23 on the Quality Reading Book Program for Indonesia's Literacy

Ministry of Education's online platform (*Platform Merdeka Mengajar - PMM*).

Promoting the use of digital books in remote areas

One of the biggest obstacles to procuring children's books in remote areas is the high price of books due to significant transportation and distribution costs. The use of digital readers has been piloted to address the scarcity of children's reading books in remote areas. Between 2019 and 2023, INOVASI collaborated with The Asia Foundation and Room to Read to train teachers and parents to utilise a digital library platform developed by these two organisations. Digital books were chosen as a preferred alternative to physically procuring books because, school demonstrated a level of readiness to use the technology. Most schools already had LCD projectors, and almost all teachers had mobile phones. Both could be utilised to make digital books available in classrooms.

INOVASI collaborated with The Asia Foundation in North Kalimantan in 2019 to train teachers to use digital books on the Let's Read digital library platform. The program also developed a guide for using the Let's Read digital book platform for teachers. Meanwhile, in NTT and NTB, INOVASI worked with Rainbow Reading Gardens and Room to Read to train teachers to use the Literacy Cloud platform. In October 2021, INOVASI, in collaboration with Room to Read, trained 1,094 teachers in four provinces to use the Literacy Cloud digital platform.

The digital books were used in the classrooms by teachers who had been trained in their use. It gave many children, especially those in remote areas, access to new attractive reading material suited to their own reading level. Although no formal study of the impact of these books has taken place, anecdotal evidence from teachers is very positive, stating that it stimulated children to read more and helped them improve their reading skills.

Additionally, INOVASI partnered with Bookbot Indonesia to develop an android reading application that aims to improve the literacy skills of children with reading difficulties, particularly with dyslexia. Bookbot has integrated the levelling system from *Saya Suka Membaca* (SSM), the Ministry of Education, and Asosiasi Disleksia Indonesia (ADI;

Indonesian Dyslexia Association) and developed a scope and sequence document which is compatible with Ministry of Education reading levels. Bookbot worked with the Ministry of Education to collect voice data from children across Indonesia, to ensure that the application recognises and works with a variety of accents from different regions and to improve the accuracy and reliability of the speech recognition model's feedback to children. To date, the app includes 1300 books. New books are being developed continually, using artificial intelligence to assist the creation of engaging and imaginative stories and illustrations based on children's interests. The Ministry of Education has established a Technical Team to advise on the development of Bookbot, and to review and approve books. This is an example of a small pilot that has found acceptance with the Ministry of Education and is now available across the country.

Whilst access to the internet is limited in some remote areas, a large proportion of Indonesian households do own smart phones, even in remote areas (Badan Pusat Statistik 2022). The Bookbot app has been developed to operate, if necessary, without the internet, and the large library of books and the artificial reading assistant have been developed to operate with limited storage space requirements and on older devices. The Bookbot Reports application is a supplementary app which allows teachers and parents to track their children's literacy progress, enabling more tailored teaching and support to the children.

The creation of digital books has increased the availability of reading materials, especially where purchasing books is difficult because of remoteness or cost. There needs to be an evaluation of their use, including their benefits and limitations including: What has been their impact on children's reading habit and performance? To what extent can digital books supplement or replace physical books? What improvements in digital infrastructure are needed improve viability? Are there cost and legal issues that need to be addressed?

Encouraging children's book writing to increase the supply of books

Commencing in 2019, INOVASI promoted and supported book writing, especially for children in early grades of primary schools, as one way to address the issue of the lack of books suitable for children in the early grades. At the subnational level, in INOVASI's four partner provinces,

the program pioneered the authorship of children's books, using a problem-driven approach to build local ownership. The Triple A approach was used to address Acceptance (using local context content appropriate to the needs of the students) Authority (ensuring the support of the district education offices) and Ability (helping teachers write books which were appropriate and met the needs of their students). In some cases, the program involved partnerships with local non-government organisations, which in turn partnered with local governments. Building the capacity of local organisations was seen as a key sustainability strategy.

In NTT, for example, book writing was focused on supporting the language transition program, using local languages as the language of instruction. In NTT, 44 book titles were written with different levelling to match children's varying reading abilities. The titles are a mix of both local language and Bahasa Indonesian books.

Meanwhile, in NTB INOVASI worked together with *Forum Lingkar Pena* to produce 15 children's books written by local authors. In NTB, the children's books were especially designed for students with disabilities. *Forum Lingkar Pena* developed the Si Bintang series, inclusive levelled children's reading books that promote the values of social inclusion and use sign language alongside the text. In North Kalimantan, 23 books were published. Of these, eleven titles were written by teachers and six were authored by North Kalimantan literacy activists working together with The Asia Foundation and Litara Foundation.

These books have gained acceptance at Ministry of Education level. A total of 17 children's book titles produced from INOVASI program have been reproduced by the Ministry of Education for use in the Quality Reading Book Program for Indonesia's Literacy described earlier in the chapter. These books were printed and distributed to 20,558 early childhood education and primary schools in 81 underprivileged districts. The six children's books produced in collaboration with The Asia Foundation are included in the Let's Read platform, a digital library platform for children's reading books, where books can be downloaded free of charge by individuals, schools and other organisations.

As explained earlier in the chapter, INOVASI feeds evidence of the impact of subnational activities back to the national level to support policy and program development at that level. In addition to working directly and in collaboration with other organisations to support the writing of children's books, INOVASI supported the ministry's Book Centre in conducting a webinar and series of workshops to strengthen the capacity of children's book writers and illustrators and thereby to improve the quality of children books. The program also provided technical advice on Gender Equality, Disability and Social Inclusion (GEDSI) in relation to book publishing and provision.

INOVASI brought in international resource persons to provide technical assistance for writers and illustrators on how to create quality children storybooks and picture books. The event included: (1) a webinar on the importance of picture books and how picture books can improve children's literacy; (2). a workshop for illustrators with Leigh Hobbs, an illustrator from Australia; and (3) a workshop for writers with Jackie French, an author from Australia. This children's book training enhanced the knowledge and skills of children's book authors, illustrators, and other book stakeholders.

It is expected that these activities will lead to an increased capacity to produce international standard, quality children's books. The approach has ensured authority and ownership from the Book Centre and has created an acceptance of a much wider range of relevant quality books to meet the needs of inclusive groups, as well as the mainstream, and increased awareness and acceptance of these books at government, school and community levels.

Fostering a reading culture

INOVASI's literacy program aimed to strengthen efforts of government and non-government partners to build a reading culture, while at the same time influencing curriculum and assessment approaches and building the ability of teachers to teach the fundamentals of literacy. INOVASI worked with district education offices, non-government organisations, and teacher training institutes to conduct training on the use of children's reading books. Teachers were trained to use levelled

books in teaching reading in the early grades, and on how to create interesting reading corners for students to read the provided books.

Different approaches evolved in different regions. Apart from training teachers, INOVASI encouraged the use of children's books through specific activities, such as reading camps, a Community Reading Centre program and collaboration with the Family Welfare Program (PKK).

The program to cultivate a reading culture in Community Reading Centres began through a partnership program with the Rainbow Reading Gardens Foundation in NTT. The Rainbow Reading Gardens Foundation provides libraries for children in Eastern Indonesia. A total of 24 children's libraries have been created by INOVASI in collaboration with the foundation.

In North Kalimantan the reading culture program started in Malinau. The District Head of Malinau invited INOVASI to help develop the enjoyment of reading through Community Reading Centres and Village Libraries. The piloting of Community Reading Centres in Malinau started in five villages. By 2023, there were 23 Community Reading Centres in Malinau providing quality children's reading books and provide a place and books for children to read in comfort.

During the COVID-19 pandemic, there was an urgent need to support children to study at home or in their local communities. INOVASI worked with the Family Welfare Program (PKK) in Malinau and Tana Tidung districts to help parents support their children's learning. One of the activities was to train parents and the community to read story books to their children. The Family Welfare Program in collaboration with Community Reading Centres provided a comfortable place and safe place for children to read and provided books at a suitable interest and reading level. In Tana Tidung District, the PKK program pioneered the establishment of Community Reading Centres in 32 villages.

All these efforts helped to build coalitions for change by connecting NGOs with district education offices and the community to improve their children's learning. They empowered the community to drive change and solve local problems with local solutions.

Increasing the number of books approved for early grade learners

In 2017, the government issued Law No. 3 of 2017 on the Book System. This law and subsequent regulations opened up an opportunity to publish books giving special attention to target groups of readers, including people with disabilities and different reading competency levels. In 2019, the Ministry of Education issued Ministerial Regulations specifically to regulate presentation standards, suitability of book content, and language use in line with learners' development stages (Article 10)[34]. These were important changes but did not, of themselves, remove blockages hindering the development and publishing of better and more appropriate reading books. One of the main obstacles was the Ministry of Education's own book approval system.

To address this issue, in 2019, INOVASI proposed a special assessment of non-textbooks suitable for early grades. Based on INOVASI's proposal, the Book Centre issued Decree No. 2557/H3.3/PB/2019 concerning the Selection of Character Enriching Books (fiction and nonfiction) as Classroom Non-textbooks, that meet eligibility requirements for use as learning resources at primary and secondary school levels.

The simplification of the approval system also included an online system for submitting book evaluations, where the proposing party does not have to be the publisher but can also be the author. This new online system has played a major role in reducing the time for submitting and processing book assessments. As described in Chapter 8, INOVASI also played a major role in incorporating Gender Equality, Disability and Social Inclusion (GEDSI) elements into the criteria for writing children's books.

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[34]Article 10 (1) The standard of presentation as referred to in Article 8 (b) includes aspects of: a. feasibility of delivering the contents of the Book in accordance with the level of development of students; and b. the use of appropriate and communicative language in accordance with the level of language mastery of students. (2) The suitability the contents of the Book according to the level of development of students as referred to in paragraph (1) letter a follows a writing pattern that is in accordance with the needs of students in a coherent and continuous manner. (3) the use of appropriate and communicative language in accordance with the level of language mastery of students as referred to in paragraph (1) letter b includes the level of simplicity or level of complexity of language according to the language abilities of students and the level of books.

Addressing constraints in book supply

Solutions to the problem of limited access to quality books, especially in remote areas, must involve the publishing and book retail industry along with other actors. The question was how to find a viable business model that will result in more quality books in the hands of Indonesian children. INOVASI facilitated a series of workshops over an 18-month period in 2021-22. As mentioned in Chapter 3, this was a classic PDIA approach. We brought together stakeholders from government, non-government organisations, and the publishing industry to explore the problem of children's book provision, and to brainstorm solutions. The group teased out the issues, identifying six key challenges on the supply side and six on the demand side, and a range of potential solutions. These are shown in the following two tables.

Table 8 Stakeholder problem analysis - Demand

Challenges	Proposed solutions
Awareness	Government policy on levelled readers Training for teachers Competitions for writers and illustrators Good models from NGOs Performance indicators for libraries and classroom reading corners Campaigns involving influencers Disseminate information on importance of children's books in schools
Budget availability	National government program to provide books for remote areas Local government funding to schools for books Regular procurement of children's books with school funds
Affordability	Online digital libraries, and digital distribution Strategies to reduce costs (paper, ink, freight, storage), possibly including government subsidies or tax breaks
Teacher capacity/ understanding	New national curriculum, in-service teacher training Training for teachers and principals in procuring and using children's books in the classroom Online teacher training platform

Procurement / access	Ministry database to maintain a comprehensive list of books for schools to select
Product appropriateness	Update and accelerate government book approval process Identify ideal books and share information

Table 9 Stakeholder problem analysis - Supply

Challenges	Proposed solutions
Procurement process	Relax government book approval process and improve implementation National government program to provide books for remote areas
Production costs	Bulk purchase of basic materials such as paper (Public-Private Partnership)
Market size	New national curriculum, in-service teacher training Online teacher training platform Regular engagement with the publishing sector and private distributors
Distribution costs	Province-level printing, storage and distribution Publication of local books
Affordability	Changes to calculation of maximum retail price setting to incentivise writers and publishers
Intellectual property protection	Enforcement of penalties for piracy

Some of the solutions proposed, such as changes to the book approval process and development of teacher training (online and offline), were adopted during the problem exploration period. Some, such as the government's book provision program, were implemented subsequently.

Following the 18-month problem exploration, INOVASI facilitated a national dialogue event with government and non-government organizations to discuss the topic 'Improving the quality and quantity of children's books'. Minister took part, along with all the key partner

non-government organizations that have been mentioned in this chapter. The discussions resulted in recommendations for book supply, school libraries and reading corners. The minister held a follow-up meeting with INOVASI, ministry officials and NGO partners to discuss the solutions and, as a result, parliament approved a government proposal to fund purchase of children's books for remote areas. However, the initial allocation approved by the Ministry of Finance was much less than hoped for. Reportedly, this was due to a misunderstanding: the Ministry of Finance officials assumed that the request was for textbook funding and responded that school BOS funds are already provided for this purpose. Not to be deterred, the minister successfully sought funds from the private sector and philanthropics to fund the book procurement plan. In February 2023, the minister launched the new policies and programs for children's books in a live-streamed event "Quality reading books for Indonesian literacy".

Another of the problems identified related to the Maximum Retail Price (HET) set for children's books, which made it unfeasible for publishers to produce and distribute quality children's books. through the Ministry of Education's procurement platform (SIPLah) due to the low maximum retail price set by the Ministry. Stakeholders had not agreed on how to calculate the maximum retail price. In December 2022, INOVASI facilitated a Book Centre meeting with book writers, illustrators, and the Indonesian Publishers Association (Ikatan Penerbit Indonesia, or IKAPI), to discuss how to determine the maximum retail price. The tools for calculations were finalised by The Book Centre in early 2023 and they agreed to re-survey the components for determining the HET which was due to be carried out in February-March 2023. The HET survey was conducted in March 2023 and resulted in an increase in the book prices from 2022 to 2023, attributed to the new formulation.

An ongoing dialogue has thus been brokered between the ministry and publishers to address how current government pricing, procurement, and distribution mechanisms disincentivise the provision of high-quality books through official channels. The government is exploring ways to adapt procurement guidelines and appropriately value creative intellectual property. The Minister proposed an online digital marketplace, where the public, including schools and families, can easily access and download books, and where creatives and the

publishing industry can all provide books and be paid on a fee-for-click basis.

Book Levelling to match children's reading ability

Importantly, INOVASI supported the Book Centre to improve the non-textbook assessment system which was very restrictive in approving books.

Based on the experience of book levelling in YLAI and INOVASI, and to implement the mandate contained in the Regulation of the Ministry of Education No. 22/2022, especially on book suitability for the target readers, the Head of the Education Standards, Curriculum, and Assessment Agency (BSKAP) issued Regulation Number 030/P/2022 Concerning Guidelines for Book Levelling. The guidelines divide books into five levels as follows:

1. Level A or Emergent Reader Level, where readers are familiar with books for the first time and are not yet able to read so they need scaffolding (a strategy to help children read until they become independent);

2. Level B or Early/Beginning Reader Level, where readers are able to read text in the form of words/phrases with combinations of letter sounds, simple sentences, and simple paragraphs, but still need scaffolding;

3. Level C or Lower Intermediate Reader Level, where readers are able to read text fluently in the form of paragraphs;

4. Level D or Advanced Reader Level, wherein readers are able to read and understand a variety of texts with medium difficulty level;

5. Level E or Skilled Reader Level, wherein readers are able to read various text analytically and critically and are able to synthesize a variety of ideas.

This regulation does not categorise children's books based on school grade levels but rather on reading ability levels. Based on the input of

INOVASI's partner YLAI, the guidelines for book levelling include more detailed levelling (sub-levels) of the Level B (early/beginning readers), namely B1, B2, and B3. The input also includes details on the characteristics of books at the various levels regarding vocabulary, number of words, sentences, types of sentences, and number of pages. The issuance of the Guidelines for Book Levelling aimed to ensure that book publishing attempts to match readers' reading skills. The guidelines also devote more attention to picture books, which were formerly considered only appropriate for pre-school level children. Picture books, with and without text, are also suitable for children at early childhood level and for beginner readers in the primary grades as they provide context and additional visual information to assist the reader interpret and decipher the text.

The annex of the guideline explicitly mentioned that INOVASI's findings in North Kalimantan that primary school students enjoy reading but could not find books with the right level to match their reading ability.

Children's reading materials in the curriculum

In previous curricula, children's reading materials were considered, at best, as optional supplements to textbooks.

During the COVID-19 pandemic in Indonesia, INOVASI and two of its partners, YLAI and Litara supported the development of the Ministry of Education's policy on the *Kurikulum Darurat* (Emergency Curriculum), which was a simplification of the 2013 curriculum where only core basic competences were taught. The Curriculum at Primary School level consisted of a combined Literacy and Numeracy Module that could be utilised by teachers flexibly to support children's learning. The module contains interesting reading materials for students taken from children's books that were made available in schools, in both digital and printed formats.

INOVASI supported Education Offices in 27 districts to implement the Emergency Curriculum during the pandemic. INOVASI provided the Literacy and Numeracy Module to schools in these districts, including Bulungan, Malinau and Tana Tidung. The program also provided training for teachers to implement and adapt the Literacy and

Numeracy Module in their lessons. In the Literacy and Numeracy Module of the Emergency Curriculum, children's reading materials were included in the teacher and student module books.

Randall (2022) and Anggraena (2022) concluded that schools using the Emergency Curriculum experienced less learning loss compared to those continuing to use the 2013 curriculum. Based on data collected from more than 18,000 students in eight provinces the study found that students in schools that implemented the simplified emergency curriculum achieved better outcomes than those in schools that implemented the full 2013 curriculum. The difference was around 0.35 standard deviations for both literacy and numeracy, or equivalent to four months of learning progress

The incorporation of children's reading material into the learning processes in the Emergency Curriculum and *Kurikulum Merdeka* should be regarded a major sign of progress. Teachers are, for the first time, encouraged to utilise children's reading materials as a learning resource.

The *Kurikulum Merdeka* and its development is described in more detail in the following chapter, and in Chapter 6 of Volume 1 of this series.

Insights

This chapter began by describing the problem, a lack of reading books in schools and communities for children to learn to read. We have provided many examples of how INOVASI worked with partners in government and non-government at national and subnational levels to address this problem. The impact of the program have been described. The main areas of impact at school, district and national levels are summarises below.

Many INOVASI partner schools have developed reading corners and school libraries filled with quality children's reading books. Pilot schools indicated a 35% increase in the number of classrooms reading

corners displaying non-textbooks.[35] Changes in teaching practices resulting from teacher training and the provision of books resulted in improved student performance in reading as set out in earlier sections.

Several INOVASI partner local governments have made significant changes in investing in children's reading books. Bulungan and Tana Tidung districts in North Kalimantan have allocated APBD budgets for the procurement of children's books. Bulungan Regency has consistently budgeted for the purchase of children's books for the primary and junior high levels from 2018 to 2022 through the Regional School Operational Assistance. Over five consecutive years, Bulungan Regency invested over IDR 2 billion to purchase over 47,000 books (as set out previously in Table 7).

Changes at national level were driven by evidence from research arising from problems identified in the field, subnational identification of problems in their context, and the development of solutions to see what works. These results were fed up to the national government, where support was provided to build the Authority, Ability and Acceptance to act at a level which can reach across Indonesia.

- Regulations related to the approval of books for use in schools have been rationalised and simplified.
- The levelling of children's reading books for use in the early primary grade has been normalised and is supported by government regulation.
- Gender equality, disability and social inclusion criteria are taken into account in developing and approving books.
- The *Kurikulum Darurat* and *Kurikulum Merdeka* have adopted the use of levelled readers and children's reading books for teaching reading as well as methodologies promoted by INOVASI and its partners.
- Supported by inputs from INOVASI and its partners, schools in remote and disadvantaged areas have benefitted from the provision of reading books appropriate to their children's reading levels and

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[35] INOVASI Literacy Thematic Study, June 2020. The baseline data was taken in 2017 while the endline data was taken in 2022.

interests as well as teachers trained in the teaching of reading using materials developed in partnership with INOVASI.

Evidence produced by INOVASI has been referenced by the Ministry of Education in dialogues with Indonesia's House of Representatives and frequently treated as material consideration in policy making.

How did INOVASI achieve these outcomes – and others discussed in the chapter? The program began with small pilots in districts, some, such as the initial pilot in Bulungan, which included just seven schools. That pilot, and what followed it, provide a good example to describe INOVASI's way of working, its interpretation of PDIA and TWP approaches in the local context. Following a PDIA-type approach, the aim was to 'find out what works.'

A rapid assessment in 2017 had identified low literacy levels as an issue and lack of reading books as a contributing factor. Identifying and exploring the problem using the fishbone tool with stakeholders, confirmed this, and led to the co-design of a pilot with seven schools to address the issue.

The pilot included basic training for teachers on the subject of reading and the methodology to teach it, as described in the previous Chapter 4. It included the development of diagnostic tests, introduction of differentiated learning (teaching at the right level) and, subsequently a remedial program for struggling readers. It also included reading corners in classrooms, creation of teacher-made big books, and establishing reading routines in the classroom. Initial results of the pilot, described above (see Figure 3), were impressive. The INOVASI team used the data to 'make the problem matter' to decision makers, sharing the alarmingly low levels of literacy and, at the same time, explaining the rapid gains achieved by the pilot program. This approach relied on having first established close working relationships with stakeholders and district leaders, built through both formal and informal channels in the small city of Tanjung Selor. It also relied on use of local data to be meaningful to local decision makers.

An important step was to give the district leader a good story to tell, a simple presentation describing the problem and the solution, and then a platform to tell it – through media and visits to Jakarta to present to

national decision makers. The sense of ownership and pride in achievement that was generated through this process was evident, and led to political and financial support from the district for a scale-out of the piloted program to include all schools in the districts. The scale-out adopted an improved design, based on the results and experience of the first small pilot. Along the way, other stakeholders were engaged, including the local university, the province-level LPMP, industry and corporate social responsibility programs, local NGOs, and provincial government.

As this bottom-up approach gained momentum, opportunities became available to leverage the results at national level. As described in this chapter, the government had, for some years, been working to build a 'reading culture' through programs like *Gerakan Literasi Nasional* (the national literacy movement). But the problem of lack of access to books, and, particularly, the chronically slow book approval process described earlier in this chapter, became glaringly apparent through the pilots in Bulungan. The political commitment and budget were there to provide books to schools, the district government had issued regulations and budgeted for local school grants to buy books using local BOS funds (BOSDA). But there were very few appropriate books approved for use in primary schools. This was due, in no small part, to the Ministry of Education's inefficient book approval process. The problem was raised with national government and led over time to the substantial changes in the book approval process described in this chapter. Engagement at national level with the Ministry's Book Centre, and subsequently with the publishing industry and other national stakeholders, eventually led to engagement with the Minister for Education and to significant policy shifts. It contributed to all the outcomes described above.

This is a story of bottom-up and top-down. The bottom-up approach met with government support at the central level, due to a confluence of influences – well described in Chapter 2 and in Volume 1 of this series. A reformist government wanting to improve learning outcomes, recognized the need for books to support literacy, and appreciated the evidence that INOVASI and partner districts provided to support their policy development and internal government advocacy. INOVASI then became a partner, able to use its connections and presence in districts to test out the national government's reforms in this area, and to feed

in advice and support, based on the evidence of its work that began in Bulungan District several years earlier in just seven schools.

Recommendations

As described in this chapter, the Government of Indonesia has–made substantial gains in reforming policy and practice relating to children's reading books. Quality reading books are becoming an important part of the learning process in schools. The Ministry of Education has also provided quality reading books in remote and underprivileged areas. However, there is much still to do to improve access to, and utilisation of, quality books for all Indonesian children. This relates to regulation, support, publishing, procurement and curriculum and training.

Authorization: government regulation and support

The current book assessment system could potentially be further simplified. Book evaluation could be confined to checking for sensitive content, leaving it open for schools, communities, and teachers to decide which books are appropriate to their context and needs.

Schools need authorization to acquire quality books in line with children's interests and reading ability. Regulations and guidelines to support the procurement of such books from government budgets will assist. It is important that these guidelines are well socialised to school and districts.

The role of local government is crucial in promoting books and reading. Legislation may be required to provide clear guidelines on the role of the local government in book procurement and use.

Ability: training, publishing and procurement

District governments can be encouraged to fund the procurement of quality reading books, to train teachers in their use and to support schemes to encourage reading among the wider community by establishing and supporting community reading centres, libraries and schemes and campaigns to encourage reading.

Efforts to train and encourage writers of children's books, including with local and regional content, could be scaled out. Schemes to assist with publishing may also be helpful. This could include expanding and enhancing a low-cost retail model that has been piloted in remote areas.

The private sector could be more fully engaged in efforts increase the supply of quality books for school, community reading centres and libraries. The idea of a digital library and marketplace for children's books could be usefully pursued, to ensure that all schools, even those in remote areas, have access to these books.

Acceptance: curriculum, campaigns and training

Media campaigns within the education sector and in the wider community could stress the importance of children's books in achieving competence in reading.
Teachers need training in the teaching of reading in early and higher grades. Training should ensure that teachers are aware of the reading skills that their students need to develop and that they know how to develop these skills using a variety of methods and reading materials. This applies to both practicing and trainee teachers. The development of attractive, interesting and accessible school libraries could be encouraged, and their use integrated into the curriculum.

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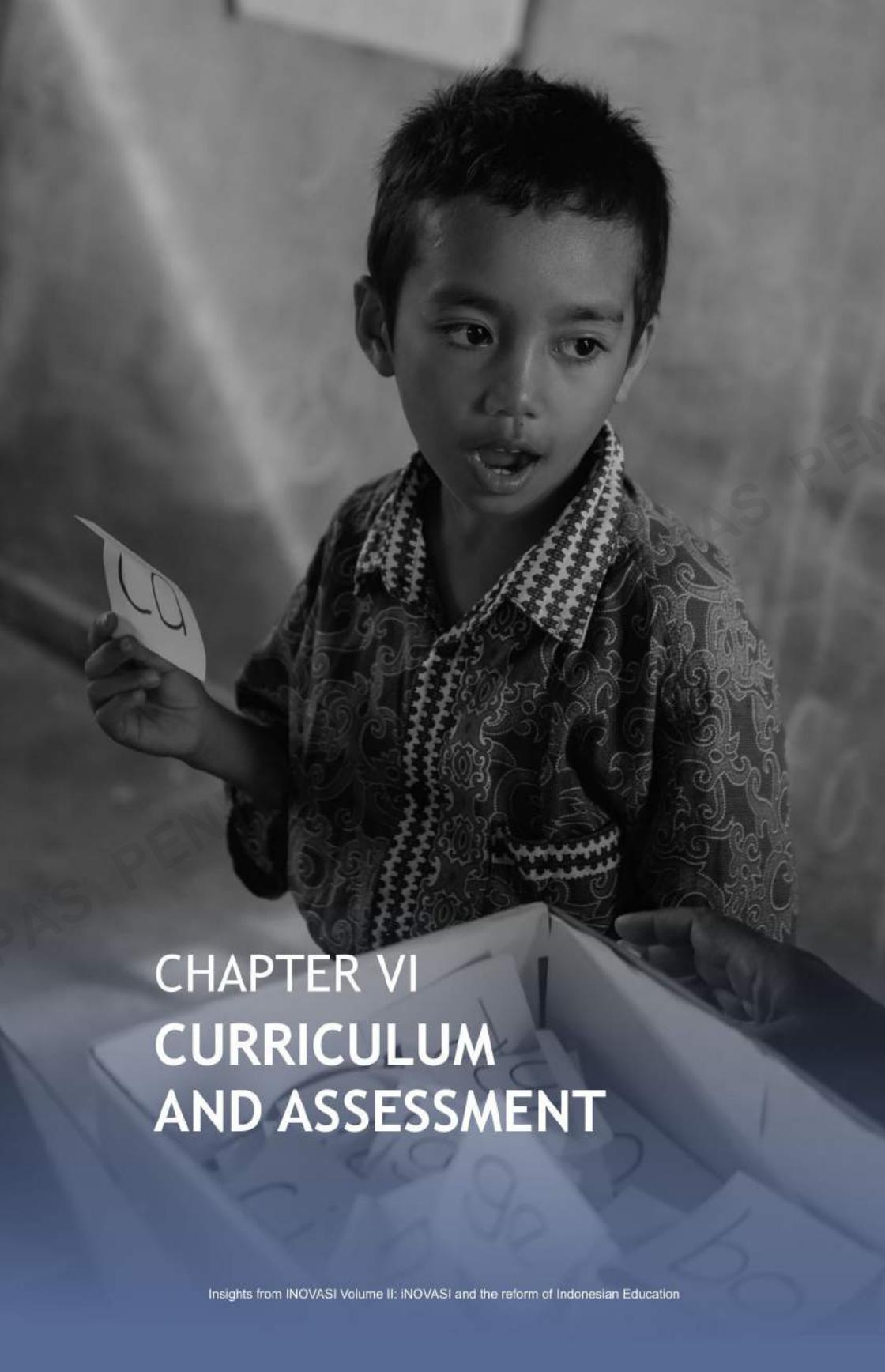
CHAPTER VI
CURRICULUM AND ASSESSMENT

CHAPTER VI : CURRICULUM AND ASSESSMENT

Robert Randall

Abstract

INOVASI adopted a range of strategies to accelerate progress towards improved learning outcomes for Indonesian students. In Phase 1 this was through a focus on building the evidence for what improved the quality of teaching in the classroom, quality of support for teachers; and learning for all. At the national level, strategies included using that evidence to contribute to review of the curriculum then in place and improvement of a national system of learning assessment. In 2019, the Jokowi administration began developing a transformative new curriculum and delivery framework to inclusively raise the proficiency of Indonesian students in literacy and numeracy, higher order thinking skills, and character attributes. Sharpened by the experience of supporting partner districts to manage the teaching and learning of foundational skills during the pandemic, INOVASI's approach in its second phase pivoted to using its experience to support the national government develop a best fit between the reforms and the capabilities of teachers, schools and districts to implement them as intended. This chapter identifies INOVASI's intersections with the reforms to curriculum and assessment that these experiences provided; the ways that the program made its contributions; and used Problem Driven Iterative Adaptation (PDIA) and Thinking and Working Politically (TWP) development approaches. It concludes with an assessment of what aspects of INOVASI's support had the most impact; and insights

from INOVASI's experience to support the faithful implementation of the reforms at scale.

Introduction

This chapter examines the contributions made by INOVASI to Indonesia's changes to curriculum, curriculum delivery and assessment policy and practice, culminating in the transformative reforms represented by the *Kurikulum Merdeka*. The purpose of the chapter is to identify the where, how and to what effect of INOVASI contributions; and insights for government and development partners relevant to ongoing support of the reforms as they are implemented across Indonesia's vast district and school system.

Curriculum and assessment are widely used terms and will often have context specific definitions or interpretations. Chapter 2: 'Finding out what works to improve learning' defines these terms and provides discussion on the opportunities and challenges of the successful design and implementation of curriculum and assessment initiatives.

The earlier chapter draws on a UNESCO definition of curriculum as a "systematic and intended packaging of competencies (that is, knowledge, skills and attitudes that are underpinned by values) that learners should acquire through organised learning experiences both in formal and non-formal settings" (UNESCO 2020). The discussion emphasises that curriculum encompasses planned experiences and learning opportunities designed to help students achieve educational objectives, incorporating what is taught, the materials used to support learning, the assessment of student learning and feedback, and evaluation for improvement.

Assessment of student learning typically includes both formative assessment and summative assessment, with formative assessment being an essential, integral component of ongoing, daily teaching practice and summative assessment providing data on student attainment and progress. Both formative and summative assessment data should be used to inform decisions about teaching and learning at the class, school, and system level.

The discussion in this chapter is presented in five sections. The first section identifies the problem that INOVASI, in partnership with targeted elements of the Indonesian education system, has sought to address. How INOVASI positioned itself to contribute both nationally and locally to key curriculum and assessment activities is the focus of Section 2. Section 3 is devoted to analysis of what INOVASI contributed specifically to the *Merdeka Belajar* reforms and to the fit of the *Kurikulum Merdeka* with teacher and district capabilities to implement them. The fourth section provides a summary appraisal of the impact of these contributions. Section 5 is concerned with what has been learned and reflections on whether the reforms in curriculum and assessment are sufficient to be able to be sustained and result in improved student learning.

The problem

That Indonesian students are not gaining basic, foundational skills is seen as a major barrier to the country's economic and social aspirations. As Chapter 2 Finding out what works to improve learning outcomes in this volume shows, Indonesia's PISA (Program for International Student Assessment) scores have essentially remained at the same low level for twenty years; in the most recent PISA (2018), in reading literacy only 30 per cent of Indonesian students scored at level two proficiency level (OECD average is 77 per cent); and in mathematics only 28 per cent of learners at level two proficiency while the OECD average was 76 per cent. (OECD 2019: 2).

Indonesia, like many other nations, aspires to an educated and skilled workforce as a matter of national interest: contributing directly to economic growth and regional competitiveness; decreasing inequity and household poverty; and supporting national well-being. Improving the foundation skills of literacy and numeracy is a necessary, albeit insufficient, step to realising such a goal.

Background to the current reforms

Curriculum.

As discussed in Volume 1, Chapter 4, since its independence in 1945, the Indonesian education system has experienced regular curriculum

change (OECD and ADB 2015)[36]. Throughout this history, the development of a new curriculum has always been expected to improve the overall quality of Indonesian education. Since 1994 this has been aspired to by promoting active learning as the core of teaching practices (Sopantini 2014).

However, as discussed in that chapter, while each iteration of curriculum was intended to improve the quality of Indonesian education, analysis shows that quality has remained stagnant or declined. A similar situation exists in terms of educational equality: disadvantaged groups are still falling behind their more advantaged counterparts.

A feature of curriculum changes since the Education Law, 2003, following decentralisation, is the alternation between decentralisation of curriculum development to the schools: (first the outcomes-based model *Kurikulum berbasis Kompetensi*—KBK, 2004, followed by School Based curriculum —KTSP, 2006); and then reversion to a prescriptive, standardising model, the *Kurikulum 2013*.

There are some key lessons from this span of curriculum change in Indonesia. One is the importance of teachers understanding the rationale for, and the nature of, change being undertaken. According to evaluations, this was not the case for many teachers in the earlier reforms (Bjork 2005). A second lesson is the need for an appropriate degree of decision-making being assigned to teachers, school leaders and local government authorities where significant change to practice is required. A degree of autonomy for local authorities, principals, and teachers is necessary in education service delivery because they tend to have a better understanding of what works best in their context (Ingersoll 2006). However, previous reforms indicate that the delegation of autonomy alone is insufficient – autonomy must be delegated alongside support for teachers. Schools and teachers may require a variety of resources, including training and mentoring, teaching, and learning materials, and additional funding. A third lesson is making provision for the knowledge upgrade of teachers and principals for implementing new approaches. However critical the content and approach of the new curriculum, teachers must be capable

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[36] 1947, 1952, 1964, 1968, 1975, 1984, 1994, 2004, 2006, 2013, and the latest is 2022.

of applying the new curriculum and delivering learning that meets its minimum standards. Finally, curriculum reform requires long-term commitment (OECD 2020) because major systemic changes need significant time to take root, typically greater than the timeframe of one government administration. Drawing on research into improving school systems, Mourshed (2010) optimistically noted that "systems focused on in this research demonstrate that significant improvement in educational attainment can be achieved within as little as six years" (Mourshed 2010:14). Further, to be effectively implemented, curriculum must be allowed to evolve with improvements and adjustments made over time. These adjustments should also consider changes that occur outside of schools, such as technological advancements, new skills required to address social problems, and the skill set demanded by the labour market, among other things.

Assessment.

As with curriculum, Indonesian assessment policy and practice has been designed to contribute to improving the quality of the education system and student attainment, in particular. However, while aspirations have been high, the system has predominantly focused on the conduct of exams at key stages of the schooling system.

As discussed in Volume 1, there have been many defects in the examination system across its long duration. These have detracted from its utility in informing policy on performance and performance trends. There have been undesirable consequences from the high-stakes nature of the exams (cheating, student stress and curriculum distortion). Notwithstanding the requirement of the law and regulation that one of the purposes of assessment includes assisting schools to achieve quality education, the regular changes and the dominant influence of the examination system have undoubtedly contributed to narrowing what is taught in schools and have also mitigated against the development of quality and sustained formative assessment practices. In primary school, the high-stakes nature of the Grade 6 exam for entry into the best schools at the commencement of junior secondary, contributed to the lack of systemic attention to and the quality of teaching in early grades, with serious consequences for foundational skills.

INOVASI's response

If improvements are to be made to curriculum and assessment policy and practice, policy developers need to have a deep understanding about the range of conditions for which curriculum and assessment are being developed, through being informed, having experience of them, and having an ongoing feedback and review process. Providing for policy and systemic strengthening based on evidence of what worked and was not working, was INOVASI's intent from the start of the program. This section follows the trajectory of INOVASI in supporting policy reforms in curriculum and assessment up to the emergence of the transformative reforms of the *Kurikulum Merdeka*, the new national assessment system, and *Merdeka Belajar* more broadly. The purpose of this account is to show the high relevance of INOVASI's local and national experience to the orientation of the government's unfolding transformation of teaching and learning; and how that experience came about.

Between them INOVASI and INOVASI's Phase I sister program, TASS (see Chapter 1), followed two main pathways. At the subnational level, INOVASI sought to make a difference through literacy and numeracy teaching approaches in INOVASI partner schools and through supporting partner districts develop better policies and practices to maintain and scale these school level improvements. At the national level, TASS brought the evidence and the examples of successful outcomes from these subnational activities to the attention of policy makers to support the process of policy development for learning improvement. In addition, the TASS program maintained the role of critical friend and facilitator to the Ministry of Education's curriculum and assessment teams, providing ongoing advisory services, including access to peer organisations in Australia, and to analysis of the curriculum provision of countries performing well in literacy and numeracy. The following describes how this was done.

INOVASI's agenda

Evidence generation from classroom practice.

INOVASI's attention during the initial phase of the program was on 'finding what works' to help improve basic literacy and numeracy in Indonesian schools.

The program started with the collection and analysis of baseline information, at district level, on local issues and challenges for student learning. While there were differences across districts, some common issues with a bearing on curriculum and assessment were identified in province and district baseline reports (INOVASI 2017a; INOVASI 2017b; INOVASI 2019a; INOVASI 2019b). These included the absence of sequenced beginning reading competencies in the *Kurikulum 2013*, to guide teaching. Classroom observation of teaching practices found that a large proportion of class time was spent on teaching from the blackboard, without using any learning materials. Rote recitation, in chorus, of syllables, words and sentences was the approach of many teachers to teaching reading, in place of teaching the skills of independent reading (Fearnley-Sander 2020). INOVASI also conducted two rounds of pilots on numeracy in six districts in the 2018 to 2020 period. Findings similarly featured low teacher understanding of the mathematical content and pedagogy needed to support children's understanding of basic numeracy concepts (Van der Heijden 2020).

These early baseline data contributed to INOVASI's development of its focus in its literacy and numeracy pilots from the second year of the program onwards. The pilots also sought to address other key factors affecting student attainment such as mother tongue instruction to support language transition, availability of reading books, inclusion, multigrade learning and school leadership (Fearnley-Sander 2020). Chapter 4 provide the evidence for the improvement of students' performance from the aggregated endline data of the combined literacy pilots. As will be shown later in this chapter, in addition, evidence of improved outcomes through language transition experimentation was to have its own significant effect on district and national policy. Chapter 5 tells a similar story about the effect of pilots trialling the difference that reading book availability made to children's learning.

A key lesson from the Phase 1 INOVASI pilots was that teachers cannot make and sustain changes in their teaching practices without the authorisation provided by curriculum and assessment to support them. From these pilots —32 of them, iterated over the three years of Phase 1—the program learned much about how to support teachers with competency sequences in curriculum, practical guides to teaching foundational skills and through opportunities to improve their understanding of the literacy and numeracy competencies they are to teach to students.

Policy advocacy based on evidence.

Through TASS, the program supported the Ministry in its curriculum review of *Kurikulum 2013* and in the development of the first national survey assessment of student competencies in literacy and numeracy (*Asesmen Kompetensi Siswa Indonesia*, or AKSI). In both curriculum and assessment, it fed back evidence of what worked in the literacy and numeracy pilots to inform improvement. Important observations about the Bahasa Indonesia and Mathematics 2013 curriculum, based on evidence from INOVASI pilots, included that:

- The curriculum does not include relevant content and a methodological guidance for teaching literacy in the early grades (and that a revised curriculum should include a balanced literacy approach, combining phonics and comprehension development through reading). The formal teaching of reading should not be part of the preschool curriculum but rather be the core business of Grade 1 and 2.
- Curriculum support should include should also include advice on how to transition learning in a first language to learning Bahasa Indonesia.
- The primary mathematics curriculum is too abstract and fast-paced which meant, for example, that students in the mid-primary classes are still confused about fractions.

The learning and feedback from the pilots also reinforced ways in which assessment could be used to improve teaching and learning practices, including:

- feedback from teachers involved in literacy and numeracy pilots indicated that, as a result of their new understanding of students learning problems, they could see how to apply diagnostic

      assessment and group students by level of achievement to teach to their point of need.

- the need for better alignment between the national curriculum and national assessment, through an assessment framework. School and class-based assessments could then be used by teachers, schools and district government as formative assessment to inform teaching and guide teacher professional development priorities.
- using evidence as it emerges can build local ownership of the problem and drive reform – the most successful pilot teams did not wait for the lengthy process of producing 'rigorous' results but instead used preliminary findings from rapid assessments to get buy-in from local partners.

The changing development context

As described in Chapter 3, the second phase of INOVASI starting mid-2020, coincided with the second period of the Jokowi administration and appointment of a new Minister for education. The government's change of priorities from infrastructure development to human development, promoted in the President's 2019 speech to the World Bank, was reflected in the Ministry's move to an explicit focus on literacy and numeracy development, curriculum revision to facilitate this shift, and the introduction of literacy and numeracy targets through the National Medium Development Plan (RPJMN). There was also a further iteration in the national testing program with a move to a new national assessment framework, comprising three instruments: the minimum competency assessment in literacy and numeracy (*Asesmen Kompetensi* Minimum or AKM), a character survey, and a school climate survey. At each of these points, the Ministry of Education and its teams were guided by the transformative philosophy of *Merdeka Belajar* and its main vehicle, the *Kurikulum Merdeka*.

The development of the reforms and the second phase of INOVASI also coincided with the onset of COVID-19. Meeting the challenges of maintaining learning during school closure required the Ministry to focus on curriculum simplification to ensure that foundational learning took place during learning from home. The Ministry's preference was for the use of a 'simplified' or Emergency Curriculum developed for the purpose, rather than continued use of the *Kurikulum 2013*. It supported this curriculum with literacy and numeracy modules developed for

parents and teachers, by advisors who had also supported the modules developed for INOVASI's literacy and numeracy pilots.

Scaling acceptance and authorisation of foundational skills.

With the pandemic, INOVASI's priorities at subnational level turned to supporting district governments to maintain the engagement of teachers and learners with teaching and learning under these unprecedented conditions. Supporting district authorities to help teachers identify foundational skills in the Emergency Curriculum, and how to 'translate' the literacy and numeracy modules into classroom sequences, became a key focus. The needs of both the Ministry and the districts thus created an unexpected opportunity for INOVASI to add impetus to a stronger system-wide focus on the basics of literacy and numeracy; and to exemplify at scale what kind of curriculum materials best support teachers. The program was heavily invested in this support for the first two years of Phase II. The literacy and numeracy modules produced during Phase I were modified to provide concrete examples of breaking down the curriculum into sequenced lessons (the LAS activity sheet) which was adopted in two of INOVASI's partner provinces. INOVASI supported the local education authorities authorise a curriculum policy for the district to coordinate schools' response to their learners' needs. Some districts in North Kalimantan and NTB also developed their own online platforms for monitoring learning and disseminating resources. Findings from INOVASI's research of capability in six partner districts indicate the emergence of leadership by local authorities in response to the Covid emergency. All took the lead in guiding teachers in curriculum adjustment, some innovating on adjustment by also adapting it to local language, enabling parents to better support children learning from home. In the absence of data collection on learning, several districts demonstrated increasing interest and innovation in ways of monitoring learning for themselves, including in one case, a policy of teachers' use of diagnostic assessment (INOVASI, 2023a).

The urgency of recovery of learning on school re-opening after COVID-19 also increased the emphasis of earlier pilots on diagnostic assessment and differentiated learning (teaching at the right level, or TaRL) as schools faced returning students with greatly varying experiences of learning during the pandemic. As shown in Chapter 4,

the practices of pre-assessment and the adoption of TaRL in INOVASI partner schools decreased learning loss: equivalent to 5-6 months during the pandemic year (SY 2020/2021), loss reduced to 2-3 months, one year after the pandemic (SY 2021/2022) (INOVASI, 2023b); with this result attributable to teachers' use of these methodologies.

National level

INOVASI also saw the need and opportunity to inform the Ministry of Education on the potential loss of basic competencies through learning at home; and to reinforce a stress on foundational skills improvement in the development of the *Kurikulum Merdeka*. It undertook qualitative and quantitative research and evaluation activities, that informed both the Ministry's response to COVID-19 and influenced the status of literacy and numeracy in the new curriculum. The 2021 Learning Gap study (INOVASI 2022c) undertaken by the INOVASI, in collaboration with the Ministry and the Australian Council for Educational Research (ACER), is an example of research and evaluation that had a major impact on the Ministry's acceptance of the need for change.

The Learning Gap study was also crucial for advancing political acceptance of the *Merdeka Belajar* reforms. Beyond highlighting learning loss and the widening inequality brought about by school closures, the intent of the study was to show the need to modify curriculum expectations; and to provide a stronger articulation of the foundational skills that students should learn in the early years of primary school. These modifications were made based on acceptance of the validity of ACER's technical advice.

The Learning Gap study provided the Ministry of Education with an evidence base to gain parliamentary approval for the new curriculum that was released in February 2021. The Minister for Education used the preliminary findings from the study to advocate with the national parliament's education commission, for adoption of the new *Kurikulum Merdeka* as a means of addressing COVID-19 pandemic learning loss in the intermediate term and improving educational outcomes in the longer term. The process of development of this advocacy was as influential as the product, with a range of one-to-one meetings between INOVASI personnel and senior ministerial staff to ensure understanding of the challenge set out by the data and analysis, the

need for action, and subsequent actions to improve draft versions of the curriculum. INOVASI also sought and promoted other external expertise in one-to-one meetings as a third party to reinforce the significance of the challenge as well as that of the opportunity.

Supporting Kurikulum Merdeka

This section opens with a profile of the *Merdeka Belajar* reforms and *Kurikulum Merdeka* to situate the following discussion of the four ways that INOVASI increased the potential of the curriculum and guidance to improve literacy and numeracy outcomes; and the fit of the reforms with the capabilities of teachers and local stakeholders for implementing them as intended.

The transformative nature of the reforms

Volume 1 Chapter 5 provides a comprehensive picture of the philosophy of the *Merdeka Belajar* reforms, and how they are reflected in the *Kurikulum Merdeka* and the new assessment system. As cited in that chapter, the essential objective of the reform is to put students' needs at the centre of teaching and curriculum and to empower teachers to make the judgments about what is needed to progress their students' learning (Ministry of Education 2020-24 Strategic Plan). It is an intended contrast to past, highly regulated, and prescriptive policies and practices that led teachers to prioritise a compliance with rules rather than focus on the different pace and contexts in which students learn. Indeed, the whole *Merdeka Belajar* program is designed to enable implementation of the curriculum and associated policy to vary at local levels in response to local needs and context. At the same time, as described below, the new curriculum is to be supported by a strong professional development program (see Chapter 4), a strong learning progression framework, and material supports for teachers in a way that the so-called 'School-based Curriculum' of 2016 was not.

Within the *Merdeka Belajar* agenda, the *Kurikulum Merdeka* model was designed around three key functions:
1. Establishing **expectations for what students should learn** through the learning expectations (*Capaian Pembelajaran*, or CP), and Pancasila Student Profile. The Government's aspirations for improvement have shifted from a focus on input-driven 'quality

improvement' typical of past plans, to one on specific learning outcomes. In Bahasa Indonesia and in Mathematics the outcomes follow established progressions of literacy and numeracy through to the end of lower secondary school. To enable students to learn at their own pace, the expectation for achievement of learning in the *Capaian Pembelajaran* statements is set at the end of a two-year phase rather than a single grade.

2. Providing **advice and guidance** to teachers and schools on the delivery of teaching and learning programs through documents that consider principles of learning and assessment and provide guidelines for operational curriculum development for schools.
   - A key change from the 2013 Curriculum to the *Kurikulum Merdeka* is that directions and technical instructions have been replaced by advice and guidance documents. This change has been made to provide flexibility for schools and teachers to develop a school curriculum that accounts for the needs and interests of students while still working towards attainment of national learning expectations. This is key to realising the goal of teaching students based on their current level of attainment, rather than solely on the grade they are in. Teaching at the Right Level (TaRL) is one method of differentiating instruction by grouping students at the same level of attainment across classes. It has been proven through rigorous evaluations to produce significant and cost-effective benefit for improving learning outcomes, especially in early grade students (Banerjee et al. 2016)
   - Projects to strengthen the Pancasila Student Profile (the character education component of *Kurikulum Merdeka*) focus broadly on the development of 21st Century skills; involving 20-30% of the total learning hours over a year (within the prototype of *Kurikulum Merdeka*). This is to be implemented through various themes, such as science, culture, and religion.

3. Providing **support material for teachers** through resources such as learning objectives (*Tujuan Pembelajaran*—TP) for curriculum planning and learning objective sequences (Alur *Tujuan Pembelajaran*, or ATP) as well as support material including learning modules (Modul Ajar, or MA), teaching modules, textbooks (student books and teacher books), and other

teaching materials; as well as microlearning content for teachers' professional development available on the *Merdeka Mengajar* online platform.

- Effective quality support materials that are directly related to student instruction make a significant contribution to improving teaching and, in turn, student learning.

- Teachers might use these support materials directly, might adapt them to better suit the needs and interests of their students, or might simply take them as examples and develop their own plans and lessons.

- The approach that school leaders and teachers take to the use support materials will likely reflect their experience and confidence with the content of the lessons. Less experienced and/or less confident teachers are advised to use the provided plans, modules, and textbooks to support the implementation of the curriculum or seek professional development or training support. Having used them once or improved their understanding of the content and teaching strategies, they might amend or adjust the resource material for the next time they are used.

To facilitate school decisions on their readiness, three stages of implementation have been proposed: learning about the reforms; implementing changes; innovating on approaches and being disseminators of change.[37] Schools can elect which stage best suits them and are expected to progress across these stages over time. Through such processes, weaknesses in the 2013 curriculum and previous curricula implementation have been addressed.

INOVASI's ways of supporting the *Kurikulum Merdeka*

Refining the targeting of learning in Kurikulum Merdeka.

The *Kurikulum Merdeka* model was drafted, reviewed, workshopped, and refined over a period of several years, with detail on the rationale for the model outlined in Curriculum for Learning Recovery published by the Ministry for Education's Education Standards, Curriculum, and

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[37] *Mandiri Belajar, Mandiri Berubah, or Mandiri Berbagi*

Assessment Agency (BSKAP) in February 2021. Throughout this process INOVASI advocated and modelled a consultative and evidence-based process which has been applied to a range of policy matters including, for example, project-based teaching and learning, early-childhood education, use of textbooks, and monitoring curriculum implementation.

INOVASI undertook a sustained supporting and advisory role during the design and development of the new curriculum and student assessment requirements and activities. The program team was invited by the Ministry to review drafts of the national curriculum, drawing on the insights gained through earlier literacy and numeracy pilots, to identify ways in which draft curriculum and implementation support material could be improved. Through such activity, INOVASI contributed to the refinement of achievement descriptions (*Capaian Pembelajaran*) for mathematics and Bahasa Indonesia – a significant contribution to a new national curriculum that will likely guide teaching and learning for years to come. INOVASI advice and guidance also influenced how teachers might use learning progressions to 'teach at the right level' and to draw on local contexts and students' interests to make their teaching relevant and engaging. This iterative approach was a breakthrough for the Ministry of Education and represented an important shift from a top–down approach to a more responsive and adaptive approach to policy development and implementation which included consideration of feedback from schools and subnational personnel.

Other contributions included forging strategic partnerships with, for example, Education Services Australia. This agency provided advice on curating teaching and learning resources on the model of the Scootle platform for teachers in Australia. The Australian Academy of Science contributed to the development of the draft science curriculum and advice on strategies to support the teaching and learning of science. As described earlier, the Australian Council for Educational Research (ACER) supported research and provision of advice on learning loss and curriculum adaptation to address the gap between curriculum expectations and students' proficiency levels. ACER also provided advice on early childhood education.

Through this period, policy and technical advisors from INOVASI worked as critical friends with a team from the Ministry of Education, which led work on the preparation of the curriculum framework. INOVASI was able to provide advice to this group on developments in Australia and in other places and to contribute to fast turnaround requests for advice on matters such as teaching at the right level, mandatory curriculum, project-based learning, implementation strategies and trialling, monitoring, and evaluating the curriculum.

A combined group drawn from the Ministry of Education's assessment and learning centre, curriculum centre and teachers and education personnel directorate was responsible for the testing or piloting, including disseminating and developing toolkits to support implementation of the curriculum. Through its partner districts, INOVASI was able to contribute to the piloting of the curriculum and the development of toolkits to support less confident and inexperienced teachers implement the curriculum. The third group of experts focused on developing technology approaches to supporting teachers' access to resources to understand and implement the new curriculum, primarily through the *Platform Merdeka Mengajar* (PMM) application and website.

Resourcing teachers' implementation of the curriculum

Teaching and training modules developed by INOVASI for early grade literacy and numeracy were drawn on by the Ministry of Education in 2021 as contributions to teaching material developed for the training and use of the *Guru Penggerak,* the teacher and principal change agents through which the Ministry is scaling out quality implementation of the *Kurikulum Merdeka.* In recognition of this success, the Ministry of Education invited INOVASI, in November 2021, to join the national literacy team, *Peta Besar Literasi*, that met weekly to discuss progress on literacy support activities.

INOVASI literacy and numeracy teaching resources, based on modules developed in Phase I but aligned to the new curriculum, have also been adapted by INOVASI and uploaded to the Ministry of Education's *Merdeka Mengajar* platform (PMM) to support implementation of the new curriculum. These include learning objective scope and sequence documents *(Alur Tujuan Pembelajaran)* for mathematics for primary

schools (Phase A-C) and for Bahasa Indonesia (Phase A), teaching modules (Modul Ajar Phase A) for literacy and numeracy, and for language transition. Twenty-two INOVASI literacy modules and 12 numeracy modules have been uploaded to the *Merdeka Mengajar* platform. These materials respond to earlier findings that the curriculum, including support material, needs to specifically address the teaching of reading and that the teaching of mathematics needs to be undertaken in a more measured way with greater attention to core skills and understanding.

INOVASI also developed 20 literacy and 17 numeracy microlearning videos in late 2022. These resources directly respond to the need for teachers to improve their skills and knowledge to teach basic literacy and numeracy. Building on from the learning and outcomes of Phase I (for INOVASI and TASS) the program has prioritised the inclusion of assessment advice and examples in the development of modules and micro-learning support materials, with a focus on assessing progress in learning rather than simply scores or achievement of grade expectations and using assessment.

INOVASI's ways of supporting assessment reforms

Improving the utility of national learning assessment.

The pandemic had presented an opportunity for reform to national assessment practices since the government had to abandon the traditional content-focused national examination system in 2020 due to school closures; this resulted in a permanent stay on the national exams. In addition, as discussed above, the pandemic also created more familiarity with and demand for diagnostic and formative assessment in literacy and numeracy – a key step if teaching at the right level is to realise its potential.

INOVASI's work on assessment was a focus of its early baselining and situational analyses. Reinforced by the pandemic experience of the need for integrating diagnostic and formative assessment into teacher practice, that focus carried through to work to influence the purpose and features of the national assessment program and the use of assessment data to inform decisions at the school, district, provincial and national level.

Building on TASS and INOVASI Phase I experience in supporting the national assessment of students' performance in the AKSI program, INOVASI worked with the Ministry on developing and piloting the Minimum Competence Assessment (*Assessment Kompetensi Minimum* – AKM) approach. It developed an academic paper to support the school climate component of the AKM survey, drawing on Indonesian policy studies to ground its rationale. It assisted with the development of a socio-economic index drawing on Australia's experience, to support intersectional analysis of the data. Through ACER it provided field support on computer adaptive testing; it provided statistical and psychometric input for the testing items, analysed the assessment instruments after field testing, and assisted in interpreting and reporting the results from the AKM and the accompanying school climate and character surveys. The program's long-established links to the Ministry of Education's assessment centre facilitated collaboration on improving the quality of the assessment instruments, the links between curriculum and the national assessment program and the quality of analysis and reporting of national assessment data.

Integral to the AKM is the Education Report that is generated from the data the AKM collects. The Education Report provides report cards to schools and districts, to identify for them areas of under-performance and the Ministry is promoting its use to inform and stimulate districts to allocate resources and implement programs to improve learning outcomes and equalise performance across schools in the district. If the Report has this intended effect on district and school planning, it may be a game changer for equitable improvement of outcomes. Schools across the country undertook the assessment for the first time in 2021 and again in 2022.

Bridging the policy-implementation gap

Through its partner districts INOVASI was able to contribute to the trial implementation of the curriculum. Continuing the supportive partnerships with local authorities developing during the pandemic, INOVASI assisted districts to develop systemic responses to the implementation of the new curriculum. Plans relevant to curriculum and assessment were finalised with INOVASI input: twelve of

INOVASI's partner districts established policies relating to support of literacy and numeracy. Most of the districts established monitoring and evaluation teams, some of which were formed only recently in the context of implementing the *Kurikulum Merdeka*. Most districts have coordinated their literacy and numeracy initiatives across government levels -with the new province-level institutions the Ministry established to support the implementation (BGP and BPMP) and have begun the development of their local eco-systems, some involving forums to bring together government and local education actors such as teacher training institutes and civil service organisations on education issues. The program has helped bring the eco-system model to the still-centralised the madrasah system. Adopting the model of the Islamic education eco-system developed in NTB, the program has helped the Ministry of Religious Affairs develop guidelines— *Panduan Implementasi Kurikulum Merdeka Berbasis Komunitas*—for local community eco-system implementation of the *Kurikulum Merdeka*. None of these systemic capabilities were in evidence in the baseline analyses that INOVASI conducted in its partner provinces in 2016-17.

Impact

This section considers what impact the INOVASI program has had on curriculum and assessment reform over its life span, both at subnational level and nationally. It also presents INOVASI and TASS' ways of contributing as implementations of their development approaches of PDIA and TWP.

Overall impact

When comparing the priorities of INOVASI and of *Merdeka Belajar*, as integrated into *Kurikulum Merdeka*, they look very similar. Both have made literacy and numeracy improvement the target objectives for learning. Both have seen that the critical reform of teacher capability and confidence to centre teaching on the student; and that the practices that drive that centring are formative and diagnostic assessment and teaching at the right level. Both have integrated these pedagogies into curriculum guidance. Both have seen that 'teaching to need' requires decentralising the decision making about the interpretation of the

curriculum to the district, the school, and the teacher, so that they have the freedom to adapt the learning process to best meet the needs and interests of the students in the classroom and at the school. Both have recognised that the capability for delivering the curriculum depends on the availability of quality professional development, curricular guidance, and a supply of practical resources for faithful translation of the curriculum into learning activities.

That similarity does not mean that INOVASI is responsible for these features of the *Kurikulum Merdeka*. As Volume 1 Chapter 5 shows, *Merdeka Belajar* has its own strong roots in Ki Hadjar Dewantara's philosophy of education; and the mindset change that informs the transformative ambitions of *Merdeka Belajar* was already present in the *Nawa Cita* agenda of President Jokowi's first administration in 2014. The technical team that developed the curriculum were professional educators, some of whom share similar professional and academic backgrounds to the INOVASI team, and all of whom will have been exposed to the same stream of educational development that promoted literacy and numeracy approaches in Indonesia over some years.

What that similarity does mean however, is that INOVASI has already had an impact on the design and faithful delivery of curriculum in Indonesia; and will likely have an impact at scale. Implementing the PDIA processes of problem-based approaches to develop local ownership of change, it has worked iteratively with stakeholders to evidence the source of problems in teaching and learning and generate the systemic solutions that fit their context. The program had a practice run in capability building during the pandemic in readying district authorities for leading and monitoring curriculum delivery. The district performance cited in the previous section shows that impact, when compared with INOVASI's 2017 baselines.

The potential of this impact is the demonstration effect that the INOVASI's partner districts can now contribute to the project of scaling out the reforms nationally. Because of the similarity the INOVASI model has with the *Merdeka Belajar* vision, the Ministry of Education leadership have referred to it as the 'proof of concept' of their reforms; and that is where its potential for influence at scale lies. Bridging the policy-implementation gap

INOVASI's PDIA approach is also responsible for another, higher level aspect of impact. That is, the influence the program had in demonstrating the value of what Ministry stakeholders have called an 'asymmetrical approach' to policy making. (See Box A).

The increased visibility of the 'language of instruction' challenge in regions where local language is dominant provides a valuable illustration of a problem moving from the periphery of national attention to one requiring the solution of full policy authorisation. Though allowance was made for use of local language to facilitate learning in the Education Law (2003) and in Presidential Regulation 63/2019, policy guidance was necessary to give teachers confidence about what exactly was authorised within the scope of this activity. This

Box A: Thinking and working politically capabilities for effective policy development

INOVASI's focus on problem driven engagement and response at the subnational level meant that district leaders became more confident to 'have a go' at addressing problems and to learn and adapt as a result. This willingness to be flexible and adaptive was observed by the Ministry's Director General for Teachers and Education Personnel (INOVASI 2022a) after taking part in a joint monitoring visit to INOVASI's program in West Nusa Tenggara ahead of the national steering committee meeting in May. The DG observed that "*INOVASI's approach to local government assistance is asymmetrical and consultative. The emphasis is on a learning approach. Let them decide their path, even if it is not the most ideal way. Don't dictate. As a result, each local government in NTB has different interventions. Not all the same. Later in the process, the local government will learn, and make corrections as a form of continuous improvement. The result is strong district ownership of the program. And increased confidence of ecosystems that they can support change, because of their own strength.*" (INOVASI, 2022a:ix)

was provided in the Ministerial Regulation 16/2022. How this came about is described in Box B.

Box B: Language transition – moving from awareness through to policy

Benson (2016:3) cites a range of evidence that use of learners' own languages for literacy and learning across the curriculum provides a solid foundation for basic and continuing education This and other research on the mismatch between home and school languages and its impact on early learning has informed one of the key lines of inquiry undertaken by INOVASI to improve early literacy learning.
Baseline information collected by INOVASI drew attention to the extent that many children entering school are not fluent in Bahasa Indonesia, the language of instruction. Through the pilots, the program was able to demonstrate that use of mother tongue in the early grades and then transitioning to Bahasa Indonesia could result in better student outcomes (compared to regular literacy pilots).

At the subnational level, INOVASI brokered agreements between local governments and non-governmental organisations to support literacy and language transition programs. An INOVASI baseline study in 2021 found that the schools in East Sumba and Nagekeo, East Nusa Tenggara, had the capacity to manage the scale-out of language transition programs piloted in Phase 1 and through Yayasan Sulinama (a civil society organization), training of teachers on using mother tongue as a transitional language began in 2022.

At the national level, INOVASI contributed to the development of positive attitudes and a knowledge base for language transition programs. This input informed MoECRT's policy brief in 2021 on 'Using mother tongue to improve basic literacy in the early grades'. This policy: (a) gives a school discretion as to whether to use it, linking the option directly with the choice making *Merdeka Belajar* allows schools: (b) affirms the benefits of learning in mother tongue for cognition and pyscho-social development; (c) advocates all teachers use diagnostic assessment to determine the level of oral fluency in Bahasa Indonesia of early grades students; (d) recommends subnational governments endorse and regulate the use of mother tongue and adapt for their contexts; (e) recommends its inclusion in pre and in-service training; and (f) explicitly recognises INOVASI's role in supporting this policy development. (Ministry of Education Policy Brief No.1 June 2023).

Nudging policy improvement

While curriculum design has been on the national agenda in recent years in Indonesia, INOVASI's influence in this area has contributed to focusing attention on the curriculum design and curriculum development and implementation processes through provision of evidence and models, workshopping and professional discussion and debate, along with reinforcing how curriculum design relates to other learning system initiatives.

The program contributed advice across a large range of curricular issues: mathematics and literacy content and the teaching at the right level approach; science content and inquiry skills; approaches to

developing general capabilities and values (the Pancasila student profile); implementation strategies, including for the *Sekolah Penggerak* program; communication and change management strategies.

In addition to being able to draw on the experience and learning from schools and districts to inform national policy, the program has also been able to bring into national-level policy discussion and strategy development experience and examples from other countries. The impact of this was noted in a response from a Ministry official during monitoring and evaluation for 2021:

> Very clear [is] INOVASI's contribution (with regards to collection and analysis of data related to school closures and the learning gap). Input from international consultants is really helpful, they provided analysis or perspectives/best practices to strengthen the content of curriculum. What I can confirm, the discussions with INOVASI consultants, [with one of the INOVASI advisors] in this domain, is really insightful, providing new knowledge about the system in [other countries]. That is a new thing for me. (INOVASI, 2022a: 5)

The provision of evidence of the critical need to improve learning outcomes across Indonesia, along with evaluation data and feedback about acceptance of the new curriculum model also contributed to political and public acceptance of the overall change and endorsement of the need to develop the curriculum and build capability to support its implementation.

INOVASI provided this ongoing technical advice to the Ministry's curriculum development team through the trusted collegial engagement with counterparts described in Chapter 3 as the program's application of Thinking and Working Politically (sometimes through fortnightly progress meetings and written notes) to help investigate and troubleshoot any issues arising during the development process. Through INOVASI monitoring and evaluation processes, INOVASI counterparts reported that discussions with INOVASI had increased their knowledge and understanding of what is needed in each stage of

the curriculum revision from organizing, delivery and implementation (INOVASI 2021).

> During 2020 respondents reported difficulties at first in working out how to build the curriculum framework and what components they needed but several interactions with the INOVASI team, through a combination of meetings and discussions, helped to clarify the issue and added to their thinking. One respondent observed that: *"... clearly, there should be strong alignment between design and function, in that for example at the design stage we should be clear on what learning outcomes mean, what is in the achievement standards, the content and what skills that our teachers should have, INOVASI talked a lot about this important linkage; one, that I realised, is missing in our (existing) curriculum*." (INOVASI, 2021:29).

Developing capability for thinking and working politically

INOVASI's most significant application of thinking and working politically to policy development at the national level is that model of asymmetrical recognition of need for local ownership referred to earlier. For the successful implementation of the *Kurikulum Merdeka* throughout the great diversity of context in Indonesia, this capability at the national level will be the most crucial.

The insights

Insights from the experience of supporting counterparts in changes to curriculum and assessment policy can help stakeholders continue the process of iteratively improving on them as the reforms roll out. The extensive change that they both entail for curriculum leadership, teaching and assessment practice will inevitably face challenges across Indonesia's diverse contexts. The following insights are intended to help anticipate and meet some of those challenges.

Effective use of evidence

A key operating principle of problem driven iterative adaptation (PDIA) adopted by INOVASI was evidence development. As described in previous chapters, the program has worked to use evidence as it emerges to build local ownership of the problem and drive reform. This

has been evident in the curriculum and assessment reforms that INOVASI has been able to support in Indonesia. An insight from the program itself, however, has been that the most successful pilot teams did not wait for the lengthy process of producing 'rigorous' results but instead used preliminary findings from rapid assessments to get buy-in from local partners. Based on the experience gained through two phases of operation a future challenge might be how to best shorten the feedback loops to drive reform more quickly.

Quality curriculum and assessment policy and practice in Indonesia

The *Kurikulum Merdeka* (KM) is more than just a 'new curriculum'. It is accompanied by effort to transform the learning system, changing the way teaching and learning take place so that all children can succeed, according to their individual potential. A key element within the changes to curriculum and assessment is the concept of differentiated learning, or 'teaching at the right level'. If this can be successfully implemented and sustained, then progress in learning for all students will improve with the consequential improvement in student outcomes. The new curriculum is accompanied by a reformed national assessment system, *Asesmen Nasional* (AN). The new, sample based AN will assess and evaluate school performance. As the change from evaluating students to evaluating school performance progresses, greater attention can be given to how the learning system and its component parts can improve to drive improvements in student progress and learning outcomes.

A core challenge for Indonesia will be to sustain fidelity of implementation across all schools in Indonesia, with districts assuming responsibility for guiding and supporting implementation and the diversity of school settings across the country. The ambitious new curriculum warrants comprehensive implementation strategies and ongoing monitoring and refining of the curriculum based on feedback from schools and others.

Another core challenge will be to build the capabilities of school leaders and teachers to provide instruction that is engaging and 'at the right level'.

A third general challenge will be to support school leaders and teachers to understand the reasons for and the nature of the change they are being asked to undertake. This will involve, at least, communicating differences from the previous curriculum, why changes have been made, how new features are evident in the curriculum framework and what expectations there are of school leaders and teachers.

Resourcing teacher skills and knowledge for implementing the curriculum

Challenges and remaining tasks that lie ahead, related to resourcing teachers include:

1. The need to acknowledge and respond to the different levels of experience and need across the great range and diversity of schools in Indonesia, including matters such as teacher knowledge and pedagogical skill, and resources (including access to resources via use of technology, or not).

2. Resources and training to build teacher confidence and capability to implement the new curriculum, from the explicit attention on early reading and literacy development, to the well-paced and supported teaching of mathematics. The approach of 'teaching at the right level' may draw on a range of strategies from small-group teaching to multi-age classes, to engaging additional support in the classroom to meet individual student needs.

3. Extensive development of advice on and examples of formative assessment to guide teachers on using relevant assessment data to judge the success of teaching strategies and inform next steps for student learning.

Enhancing curriculum and assessment design and monitoring

Specific curriculum and assessment related challenges include:

1. Maintaining an alignment between curriculum and national assessment, so that 'what is being taught is what is being assessed' and data and models from the national assessment can meaningfully contribute to analysis and improvement strategies.

2. Further development of diagnostic assessment instruments is important, particularly for the early years of schooling in key skill areas, including for literacy and numeracy. These might include assessments for use by schools to identify the extent of learning that students bring to school, including, for example, the extent of their reading ability. The aim of the diagnostic assessments will be to provide teachers with quite detailed information about what students already know and can do and what areas require attention.

3. Development of strategies to help students learn the capabilities detailed in Pancasila Student Profile through subject instruction and through project-based learning. This is one area of the new curriculum for which there is a significant change from current practice. To successfully implement this new element of the curriculum, a range of guidance and illustrations of practice will be needed—from advice on which capability naturally fits with which subjects to balancing direct teacher instruction with inquiry-based activities.

4. The establishment of an ongoing monitoring, evaluation, and research program to identify and respond to issues that arise as the curriculum is used across the Indonesian learning system. This will include regular feedback from teachers and others who are using the curriculum as well as an ongoing program of research (national and international) looking at ways in which the curriculum, curriculum support and/or pedagogical practices can be further improved.

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CHAPTER VII

DISABILITY. PROGRESS AND POLICY HARMONISATION IN INDONESIA'S DISABILITY-INCLUSIVE EDUCATION JOURNEY

CHAPTER VII: DISABILITY.

PROGRESS AND POLICY HARMONISATION IN INDONESIA'S DISABILITY-INCLUSIVE EDUCATION JOURNEY

Beth Sprunt

Abstract

Indonesia's Disability Law No.8 of 2016 guarantees the rights of persons with disabilities, including to a quality inclusive education. This law has required a process of adjusting, and revoking where necessary, regulations that are contrary to its provisions. In the context of education, the policy pathway to achieving the rights of students with disabilities has been the development of comprehensive regulations related to reasonable accommodations.

Implementing disability-inclusive education has posed significant challenges, as it has in many countries. Key challenges include a lack of reliable data on disability, limited availability and capability of special education teachers, and inadequate support service systems in the regions. A crucial step in addressing these challenges has been to improve data systems to enable accurate and relevant data to plan and budget for reasonable accommodations, as well as for scaling up Disability Service Units, which are a critical support structure for inclusion.

This chapter reviews changes in laws and policies from 2003 to 2023 and examines INOVASI's role in policy and practice shifts, with particular emphasis on the application of Problem-Driven Iterative Adaptation (PDIA).

Introduction

In this chapter, we examine progress made in Indonesia regarding disability-inclusive education policy and practice, starting from 2003. The first section provides a chronology of legal and policy developments leading to the current reforms. The significance of the reforms is underscored by evidence of the substantial disparities in educational access and participation of Indonesian children with disabilities.

The next section explores the contributions made by INOVASI and TASS on changes to policy and practice, exploring how approaches to building authority, ability and acceptance for disability-inclusive education have supported the reforms. INOVASI's work on disability has involved the interconnected areas of disability identification and data systems, regulatory reform, staffing and support systems to enable inclusive practices in schools. Emerging from challenges identified by schools and local governments in NTB in Phase I of INOVASI, in parallel with data and regulatory problems identified through the work of TASS with the Ministry of Education and the Ministry of Religious Affairs at a central level, efforts to address these problems had to be iterative and adaptive. The process of developing and testing solutions involved learning, experimentation and flexibility to arrive at solutions.

The chapter finishes by reflecting on key insights and future considerations, touching on issues related to sustained partnerships, participation of people with disabilities, and the varied emphases on ability, acceptance and authority within the journey towards policy and practice reforms. The last section outlines policy areas and systems that need further development or support for implementation on a larger scale and provides some key recommendations.

Disability-inclusive education

Inclusive education has been defined as a process of focusing on and responding to the diverse needs of all learners, removing barriers impeding quality education, and thereby increasing participation in

learning and reducing exclusion within and from education (UNESCO 2005). Inclusive education is central to Sustainable Development Goal 4, which aims to: "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", including persons with disabilities (United Nations 2016:2).

Although inclusive education is intended to encompass all learners, children with disabilities are often among the most marginalized when it comes to access to education (UNESCO 2020). Therefore, there is a pressing need to prioritize strategies that address the unique barriers faced by children with disabilities. This chapter focuses on disability-inclusive education because many barriers that cause exclusion for children with disabilities are specific to the issues of disability. These require different strategies and actions from those needed to overcome barriers due to poverty, language, gender and others.

Disability-inclusive education enables children (or adults) with disabilities to access education within regular, mainstream schools alongside peers without disabilities, in the classrooms they would be attending if they did not have a disability, or within environments that best correspond to their requirements and preferences (that is, special schools). Disability-inclusive education relates to people with all types of disabilities or functional difficulties including physical, sensory (hearing, vision), cognitive, communication, behavioural and psychosocial.

Indonesia's Law No. 8 of 2016 states that Persons with Disabilities are any person who experiences physical, intellectual, mental, and/or sensory limitations for a long time which, in interaction with the environment, may lead to obstacles and difficulties to participate fully and effectively with other citizens based on equal rights.

The problem

Evident from the persistent and wide disparities in educational access and achievement between Indonesian students with disabilities and their peers without disabilities, the imperative to transform the current situation is unmistakable.

School enrolment, attendance, and completion rates for children with disabilities in Indonesia are markedly lower than those without disabilities. In March 2022 the national statistics agency (BPS 2022)

reported that, as seen in Figure 3.10, the Net Enrolment Ratio for students with disabilities is substantially worse than for students without disabilities (90.96 compared to 97.91 in primary school; 49.64 compared to 81.07 in junior secondary school; 27.44 compared to 62.19 in senior secondary school; and 13.38 compared to 22.08 in tertiary education). This shows the enormous loss in transition from primary to junior secondary and from junior secondary to senior secondary school for students with disabilities, with large proportions of students with disabilities becoming out-of-school at those points.

Figure 5 Participation rates by education level and characteristics

Source: BPS, Susenas Maret 2022

Out-of-school rates show a similarly striking discrepancy (see Figure 6 below):

- 7-12 years: 8.43% of children with disabilities are out-of-school, compared to 0.52% of children without disability.
- 13-15 years: 39.15% of children with disabilities are out-of-school, compared to 6.75% of children without disability.
- 16-18 years: 56.17% of children with disabilities are out-of-school compared to 22.31% of children without disability.

Figure 6 shows that the majority (71%) of people with disabilities in Indonesia's population have only primary school education or below, while the majority (64%) of people without disabilities have junior secondary school education and above.

Figure 6 Highest level of education completed by 15 years and over according to disability status
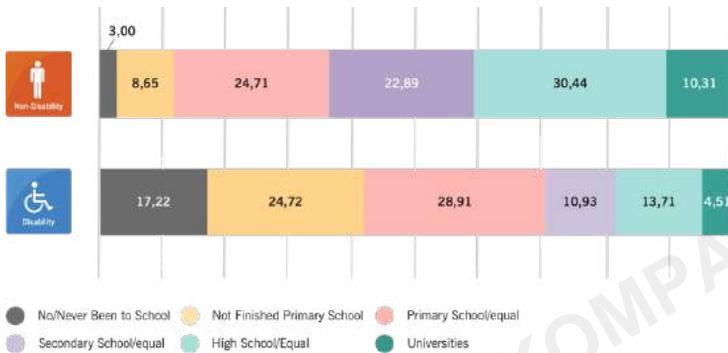
Source: BPS, Susenas Maret 2022

The average length of schooling for people with disabilities across the population is 5.32 years, compared to 9.18 years for people without disabilities (see Figure 7).

Figure 7 Average length of schooling according to demographic characteristics 2022

Source: BPS, Susenas Maret 2022

Evidence from INOVASI's Learning Gap Study (INOVASI 2022) emphasised that efforts to promote disability-inclusive education must have a **specific focus on rural areas**, where students with disabilities face compounded disadvantages. Students with disabilities, particularly in rural and remote areas, face significant disadvantages, as shown in Figure 8. A striking 86% of Grade 3 male students with disabilities did not meet the minimum proficiency level[38] for literacy compared to only 69% without disabilities. This disparity was compounded in rural and remote areas, where 91% of boys with disabilities underperformed compared to their urban counterparts at 82%. Similarly, a higher percentage of girls with disabilities in rural and remote areas (87%) did not meet the minimum proficiency level, as compared to girls with disabilities in urban areas (73%). These findings highlight the urgent need for special emphasis on disability-inclusive education efforts in rural areas. The intersection of disability, rural/remote and mother tongue should be explored at the beginning of planning processes for inclusion, both at the student, school, and district level.

Figure 8 Proportion of Grade 1-3 students not meeting the Minimum Proficiency Levels in literacy (by student, disability, gender and location

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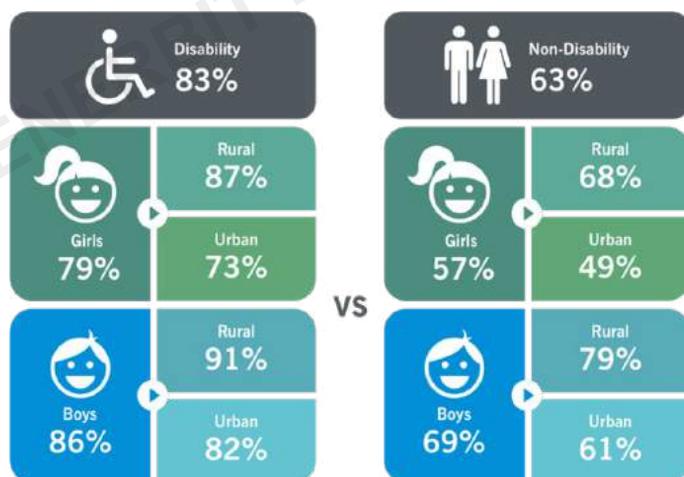
[38] Based on UNESCO's Global Proficiency Framework Minimum Proficiency Levels (MPLs)

The policy context

Government policy reforms in disability-inclusive education

For over three decades, Indonesia has been improving access to and the quality of education for students with disabilities. The commitment of Indonesia to The Salamanca Statement and Framework for Action on Special Needs for Education (UNESCO and MoES Spain 1994) in 1994 helped pave the way for the implementation of inclusive education. The country has since reaffirmed its ongoing dedication to inclusive education through various laws, regulations, and policies, and signed up to international frameworks such as Education for All, the United Nations Convention on the Rights of Persons with Disabilities (CRPD), and the Sustainable Development Goals. This section traces the chronology and influence of key reforms to laws and policies related to education of children with disabilities, culminating in the present disability-inclusive education agenda. The subnational case study of policy reform is from West Nusa Tenggara (NTB).

History of policy development and reform for disability-inclusive education

Inclusive education was formally incorporated into the education system through the National Education Law No. 20 in 2003. This law guaranteed the right for students with disabilities to access educational services in special schools, regular schools or public schools. From this law, derivative regulations have been developed related to, for example, special education teachers, education standards and curriculum, among others. Law No. 20/2003 was the basis for the National Education Ministerial Regulation No. 70/2009 *(Permendiknas)* which provided the policy framework for inclusive education, including "students with disabilities and the potential for intelligence and/or special talents", in kindergarten, primary and junior secondary schools. In line with this, district governments undertook inclusive education initiatives by assigning one primary school and one junior-secondary school in each sub-district to provide inclusive education.

While Regulation No. 70/2009 was a significant step forward in promoting inclusive education, it was insufficient to promote its full realization. A key criticism was that the regulation lacked clear and

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specific guidelines for implementing inclusive education in schools. The regulation called for provision of reasonable accommodations[39] for students with disabilities, but it did not provide guidance on what types of accommodations should be provided, how they should be provided, or how schools could be held accountable for providing them. This lack of specificity made it difficult for schools to implement inclusive education meaningfully.

Another criticism of the regulation is that it did not address broader systemic issues affecting the ability of students with disabilities to access education, for example, a lack of accessible transportation, lack of assistive technology and equipment, or the shortage of qualified teachers and support staff with skills in inclusive education. Inadequate funding and infrastructure barriers are also seen to have hampered the implementation of inclusive education policies.

Despite these criticisms, Regulation No. 70/2009 was an important first step in promoting inclusive education in Indonesia. It helped to raise awareness of the need for inclusive education and laid the foundation for future policy and programmatic efforts to promote the full realization of inclusive education.

In 2011, Indonesia ratified the UN Convention on the Rights of Persons with Disabilities (UN 2006), affirming the right of children with disabilities to receive quality, inclusive education tailored to their needs and preferences, whether in mainstream or specialized settings. Article 24 of the Convention recognizes inclusive education as the means of fulfilling the right to education for people with disabilities. Indonesia's Law No. 19/2011 on the Ratification of the CRPD mandated the government to provide equal access and opportunities for people with disabilities, to ensure non-discrimination, and promote their participation in all aspects of life. It also mandated the provision of support and services to people with disabilities, including in education, and established the National Commission on Disability Rights as the overseeing body for CRPD implementation and promoting the rights of

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[39] Reasonable Accommodations are modifications or adjustments made to educational practices or environments that enable students with disabilities to have equal access to education and participate fully in education, in accordance with the government's obligations of inclusivity and non-discrimination. Examples include providing sign language interpreters, offering extended time on tests, providing accessible materials such as braille or large print, modifying classroom seating arrangements, or making physical modifications to school facilities to ensure accessibility for students with physical disabilities.

people with disabilities. Five years later, Law No. 8/2016 on Persons with Disabilities was enacted, which is a more comprehensive and detailed law that places greater emphasis on the practical implementation of specific measures to promote and protect the rights of people with disabilities. It guarantees the right of people with disabilities to access a quality education in all levels and types of educational facilities, whether mainstream or special schools, and requires reasonable accommodations for students with disabilities. Consistent with the CRPD, Law No.8/2016 also supports the establishment of special schools and classes for children with disabilities, as appropriate. It mandates that the curriculum and assessment methods should be adapted to the needs of people with disabilities, considering their individual abilities and learning styles, and calls for provision of alternative assessment methods and reasonable accommodations to enable people with disabilities to demonstrate their knowledge and skills. The law requires that education personnel are trained in inclusive education and in working with students with disabilities, and that educational institutions provide accessible infrastructure. It also provides for financial support to enable people with disabilities to access education and training, including scholarships, grants, and other forms of financial assistance.

Current reforms: Interconnecting Education and Disability laws for inclusive education

With the enactment of Law No. 8/2016 on disability, Regulation No.70/2009 became outdated due to variations in terminology as well as in normative substance related to education rights. In response, the Ministry of Education and the Ministry of Religious Affairs drafted a replacement regulation, derived from the Education Law No.20/2003 and the Disability Law No.8/2016, which is Regulation No. 13/2020 on Reasonable Accommodation. This provides more specific and detailed guidelines for implementing inclusive education. It specifies accommodations to be provided for students with disabilities, including assistive technology and accessible facilities, in all levels and types of education both inclusive and special. It also provides guidance on how schools should develop individualized learning plans for students with disabilities and how schools should measure and monitor the progress of these students. It requires that schools provide accessible transportation and facilities and calls for the development of a national

database of qualified teachers and support staff with training in inclusive education. The regulation mandates schools to conduct regular assessments of their accessibility and inclusivity and provide inclusive education training for all teachers. The regulation, for which schools and higher education institutions are held accountable with a series of sanctions, requires the government to list students with disability, by type of disability, and the number of students who have received reasonable accommodation. Implicit in this is the ability for schools and governments to make an accurate determination as to whether a student has disability and what reasonable accommodations should be provided; this has been a key challenge for the Government of Indonesia and a focus of INOVASI's support, specifically, the development of the Student Learning Profile (PBS).

In line with Article 43 of Regulation No.13/2020, the Ministry of Education developed implementing Regulation No. 48/2023, on the Provision of Reasonable Accommodations for Students with Disabilities in Formal Early Childhood Education, Basic Education, Secondary Education, and Higher Education. In parallel, the Ministry of Religious Affairs drafted an equivalent Regulation on Reasonable Accommodation for Students with Disabilities in Ministry of Religion Educational Institutions[40]. The aim of the regulation is not only to ensure access to education for all students with disabilities, but also to ensure the quality of education, especially learning, with the availability of reasonable accommodations and budget support systems, human resources, curriculum, and facilities according to the needs of students. INOVASI's contribution to the development of these regulations is explored later.

Merdeka Belajar

As discussed in Chapter 5 of Volume 1, and in previous chapters in the current volume, major reforms to education have been underway at both national and subnational levels associated with *Merdeka Belajar*. The change in approaches to curriculum and teaching has provided a significant opportunity for improving inclusive education, with the aim of equity in learning outcomes. The intention for teachers to implement

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[40] *Akomodasi Yang Layak Untuk Peserta Didik Penyandang Disabilitas Di Lembaga Penyelenggara Pendidikan Pada Kementerian Agama*

Kurikulum Merdeka using differentiated instruction (teaching at the right level) is central to the *Merdeka Belajar* reforms. Differentiated instruction involves tailoring teaching methods, content, and assessment to meet the diverse learning needs of individual students within a classroom. This pedagogy aims to ensure that all students receive instruction at a level appropriate to their abilities, which is particularly important for students with disabilities who may require tailored instruction to fully participate in the learning process. The new emphasis on the processes of diagnostic and formative assessment is critical in supporting the inclusion of children with disabilities. These assessments provide teachers with a better understanding of individual students' strengths and weaknesses, which can inform the development of individualized learning plans. Efforts to scale up teachers' capability for differentiated instruction is vital. Riahta and Kurniawati (2018) reported that many Indonesian teachers do not have the confidence to support the learning activities of students with disabilities in their classes as they do not have the skills to undertake differentiated instruction.

Decentralisation's effect on disability-inclusive education

Decentralization in Indonesia, as discussed in Chapter 2, Volume 1, presents opportunities and challenges for disability-inclusive education. Decentralization has enabled greater local control over education policy and funding, which has led to more flexibility in the delivery of education services. Special schools, however, come under provincial jurisdiction, whilst inclusion within mainstream schools is the responsibility of district education offices, which has led to challenges in coordination.

Additionally, decentralization has led to a lack of uniformity in education policy across different regions of Indonesia, resulting in disparities in the quality of education and access to education services. For example, students with disabilities may not have access to the same level of support and resources in some regions as in others. With the ongoing harmonisation and reform of laws and regulations related to disability-inclusive education, the decentralized nature of the education system means that substantial effort, resourcing and time are required to ensure appropriate reforms and subsequent roadmaps (implementation plans) in all 34 provinces and potentially all 7,274

sub-districts. On top of that, and perhaps most importantly, efforts and resources will be required to raise awareness within schools and communities about the rights and resources implicit in these new regulations.

The response - INOVASI/TASS contribution to disability-inclusive education reforms and the effects of the changes

During the period of INOVASI Phase II, there has been extensive regulatory reform, including the integration of the disability law into education policy and the *Merdeka Belajar* reforms. These agendas both hold significant potential to bring about positive impacts on the numerous learners with disabilities who have been excluded from quality education. Through its trusted partnership with the Government of Indonesia, INOVASI has had the opportunity to support and influence these policy reforms and to contribute to tools, products and systems which aim to enable schools and the government to deliver on the reform ambitions. The long-term goal is to see quality inclusive practices being implemented in classrooms across Indonesia and improved learning outcomes for students with disabilities. INOVASI's work to date, however, has largely focused on key building blocks required to enable these changes at the classroom level; these are discussed below.

As outlined in Chapters 2 and 3, the triple conditions for effective take-up and sustainability - whereby governments and schools enable and implement disability-inclusive education - are Authority, Ability and Acceptance. In this case, Authority relates to the political, regulatory, legal and organizational support for disability-inclusive education; Ability refers to the skills, tools, systems and resources to implement disability-inclusive education; and Acceptance is the mindset within implementing officials and schools towards changes required to achieve disability-inclusive education. INOVASI has focused on different ways, times and places for each of these three areas, with emphasis on authority and ability.

Structured around this Triple A framework, this section describes how INOVASI's work has contributed to each of these conditions. The Insights section of this chapter explores the intersection between these

Triple A factors and the lessons gleaned from our experience engaging in these areas.

Authority for disability-inclusive education

In the context of advancing disability-inclusive education within Indonesia's decentralized education system, securing authorization to act is paramount. The complex network of authority at both national and subnational levels has necessitated a nuanced approach: understanding power dynamics and building strong relationships with key stakeholders has been crucial for achieving progress.

The fragmented and dynamic nature of the authorizing environment for disability-inclusive education, encompassing stakeholders responsible for various aspects of education as well as other sectors (such as health, transport, villages), has necessitated close cooperation and extensive communication. Strategic engagement with various authority holders, evidence-based advocacy, and collaborative partnerships are key to expanding the scope for transformative change in disability-inclusive education across Indonesia's diverse classrooms and education systems.

INOVASI has been particularly involved in building the authorizing environment for disability-inclusive education reform through its contribution in three areas: regulations and roadmaps in NTB; the national regulation on reasonable accommodations for students with disabilities and disability service units (linked to use of data from the Student Learning Profile (*Profil Belajar Siswa,* PBS*)*; and national teacher competency standards for special education teachers. These areas are discussed below, and a timeline of these is presented in Table 8.

Subnational reform – the example of West Nusa Tenggara (NTB)

Subnational policy reform is essential for advancing disability-inclusive education. Several provincial governments have developed their own inclusive education policies and plans tailored to the local context and allocated additional resources to support inclusive education, such as funding for special education teachers and aides, assistive technologies,

accessible school infrastructure, and transportation services for students with disabilities. Subnational governments have also been pivotal in supporting teacher training programs and promoting disability rights, often in partnership with local NGOs and Organisations of People with Disabilities (OPDs).

In 2016 in NTB, one of Indonesia's less developed provinces, the provincial government released the Governor's Regulation No.2/2016 on the Implementation of Inclusive Education. This was followed in 2018 by guidelines for implementing the policy. In 2020 these guidelines were replaced by Governor's Regulation No. 20/2020, which added information on early identification, teacher training and the use of assistive technologies[41]. Also in 2020, the Governor's Regulation No.21/2020 was released, on Technical Guidelines for the Implementation of Inclusive Education in NTB, which provided practical guidance for teachers and school administrators in implementing inclusive education practices. In 2022, following review of inclusive education dashboard data supported by INOVASI, the NTB government requested INOVASI support to review the 2016 Governor's Regulation. The extent of required changes resulted in replacing the 2016 regulation with the Governor's Regulation No.78/2022. This included stipulations about using functional assessment to identify disabilities and mandated data collection as a basis for inclusive education policy making.

At a district level, INOVASI supported a multistakeholder policy analysis and development process in 2017 in a district within NTB, resulting in the Central Lombok District Inclusive Education Roadmap (2018-2023). This was an important document in the promotion of inclusive education, outlining targets, timelines, stakeholders and partnerships needed for implementation. It includes strategies such as capability building for teachers and school administrators, provision of inclusive learning resources and infrastructure, and community engagement to support the inclusion of children with disabilities. The roadmap bridges the gap between policy and practice, providing a concrete plan for district level implementation and a valuable tool for monitoring progress and ensuring accountability.

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[41] Assistive technologies include devices such as braille machines, screen reading software, wheelchairs, hearing aids and communication boards.

Regulation on reasonable accommodations for students with disabilities

In July 2022, the Ministry of Education's Legal Bureau asked INOVASI to provide experts with lived experience of disability and experience in policy, education and research to review and improve the draft Regulation No. 48/2023 concerning Reasonable Accommodations for Students with Disabilities in formal Early Childhood Education, Primary, Secondary, and Higher Education.

This regulation is a pivotal piece of policy in translating the rights outlined in the CRPD and in the Disability Law No.8/2016 into action. Reasonable Accommodations are modifications or adjustments made to educational practices or environments that enable students with disabilities to have equal access to education and participate fully in academic and social activities, in accordance with the government's obligations of inclusivity and non-discrimination. Examples of reasonable accommodations that schools might provide to students with disabilities include providing sign language interpreters, offering extended time on tests, providing accessible materials such as braille or large print, modifying classroom seating arrangements, or making physical modifications to school facilities to ensure accessibility. The four minimum components[42] that must be implemented by the government to fulfill reasonable accommodations for students with disabilities include: (i) provision of budget support and/or funding assistance; (ii) provision of facilities and infrastructure; (iii) preparation and provision of educators and educational personnel; and (iv) curriculum provision.

During the extensive review process, INOVASI advisors provided several key recommendations, including enhancing the clarity of duties, roles, and competencies of special education teachers, in both schools and Disability Service Units (ULD). They also suggested improvements in the university system for developing disability service units and their role in facilitating reasonable accommodation, as well as the formulation of regulations concerning assistive technologies for such purposes. They advocated for the abolition of Ministry of Education

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[42] Article 4 Paragraph 1 of Government Regulation No. 13/2020 concerning Reasonable Accommodations for Students with Disabilities

Regulation No. 70/2009, which was seen as inconsistent with the principles of Disability Law No. 8/2016. INOVASI proposed a functional identification and assessment approach for registering students with disabilities in schools, offering an alternative method for teachers, schools, and parents to determine the need for reasonable accommodations. Lastly, they applied pressure to accelerate the ratification of ministerial regulations by coordinating with high-level officials from the Ministry of Education.

The importance of obtaining acceptance for functional assessment approaches to be regulated is discussed in the section below *Disability data for evidence-based policy implementation*. This paves the way for official use of data arising from the Student Learning Profile (*Profil Belajar Siswa,* PBS). A pivotal achievement is the clarity outlined in Article 12 of the new Ministry of Education regulation No. 48/2023 which states that reasonable accommodations for students with disabilities will be provided based on the results of the functional assessment, which will include information about the conditions, barriers, and needs of students with disabilities to inform the provision of reasonable accommodations. This is the key example of working in the Authorising domain to enable effective uptake and scale out of a technical solution in the Ability domain.

Concurrently with inputs to the Ministry of Education's regulation, INOVASI has assisted the Ministry of Religious Affairs to develop the Minister's Regulation (PMA) concerning Reasonable Accommodation for Students with Disabilities in Educational Institutions at the Ministry of Religious Affairs. Collaboration between INOVASI staff working with the Ministry of Education and the Ministry of Religious Affairs has enabled cross-learning regarding disability-inclusive education and maximisation of efforts and resources.

Educational standards

The third body of work in creating the Authorizing space for disability-inclusive education relates to standards which underpin teacher capabilities and conditions. INOVASI provided support in the development of the Teachers and Education Personnel Division in the development of Ministerial Decree No. 56/2022, which sets initial

teacher education standards. This decree, based on academic papers prepared by INOVASI, regulates the undergraduate degrees required for professional education of teachers, serving as a foundation for reforms.

In 2023, INOVASI provided support to the Ministry of Education by facilitating the development of teams including people with disabilities, special education organizations and other experts to discuss and finalise the Ministry of Education's Special Guidance, Teacher Competency Guidelines in General and Vocational Education Units – Directorate General of Teachers and Education Personnel, Directorate of Secondary Education and Special Education Teachers in 2023. These guidelines are a derivative of the Director General of Teachers and Education Personnel regulation, Perdirjen Teachers GTK Kemendikbudristek No. 6565/B/GT/2020 concerning Competency Model in Teacher Professional Development. These guidelines outline the responsibilities of teachers, a professional development model, and best practices. They serve as a reference document for teacher promotions and continuing professional development, and classification as a special education teacher in the ministry's basic education management information system *(Dapodik),* which triggers incentives, teacher allocations, and prioritization in teacher distribution planning.

INOVASI was requested to undertake a process to validate the guidelines with representatives of district education offices, organizations for people with disabilities (OPDs), teachers, and expert representatives of universities. Further work is needed to align the guidelines with the recently issued Minister's Regulation No. 32 of 2022.

Table 10 Policies and strategies that INOVASI has provided technical support to, which have significant influence on disability-inclusive education, by relevance to the Ministries of Education and Religious Affairs on Minimum Education Service Standards.

Year	Law / policy and its relation to inclusive education	Relevant for MoECRT	Relevant for MoRA	Significant contribution by INOVASI
2016	NTB Governor Regulation No. 2/2016 on the Implementation of Inclusive Education – provides a general framework for implementation of IE			ü
2018	Governor Regulation No. 55/2018 on Guidelines for the Implementation of Inclusive Education in West Nusa Tenggara Province - provides detailed guidelines on the implementation of IE in NTB, including roles and responsibilities of stakeholders, strategies for promoting inclusive practices, and monitoring and evaluation mechanisms			ü
2019	Central Lombok District Inclusive Education Roadmap 2018-2023 - outlines the strategic direction for inclusive education in the district and provides a comprehensive plan for implementation			ü
2020	Roadmap for Special Education for Students with Disabilities in Special Education Units, General Education Units, and Vocational Education Units at the ECCE, Primary, and Secondary Education Levels 2020-2024 - Secretariat General of the Ministry of Education and Culture in 2020	ü		ü
2020	Decree of the Director of GTK regarding the establishment of the Inclusive Education in Madrasah Forum (FPMI – Forum Pendidikan Madrasah Inklusi)		ü	ü
2020	Perdirjen Teachers GTK Kemendikbud Ristek No. 6565/B/GT/2020 concerning Competence Models in Teacher Professional Development			ü
2020	Governor Regulation No. 20/2020 on Guidelines for the Implementation of Inclusive Education in West Nusa Tenggara Province: This regulation updates and replaces the previous guidelines (No. 55/2018) with new provisions that reflect current developments in inclusive education. It includes additional guidance on topics such as early identification and intervention for students with disabilities, teacher training and professional development, and the use of assistive technology.			ü
2020	Governor Regulation No. 21/2020 on Technical Guidelines for the Implementation of Inclusive Education in West Nusa Tenggara Province: This includes detailed guidance on curriculum adaptation, teaching strategies, assessment and evaluation, and the provision of support services for students with disabilities. Intended to provide practical guidance for teachers and school administrators in implementing inclusive education practices in the classroom.			ü
2022	Decree of the Director General of Islamic Education No. 758/2022 concerning Guidelines for Implementing Inclusive Education in Madrasah		ü	ü

2022	NTB Provincial Governor's Regulation No. 78/2022 concerning Inclusive Education - that stipulates using functional assessment to identify disabilities and mandates data collection related to inclusive education as a basis for policymaking			ü
2023	MoECRT Regulation No. 48/2023 on the Provision of Reasonable Accommodations for Students With Disabilities in Formal Early Childhood Education, Basic Education, Secondary Education, and Higher Education[43].	ü		ü
2023	MoRA PMA Regulation No. XX/2023 on Reasonable Accommodation for Students With Disabilities in Ministry of Religion Educational Institutions		ü	ü
2023	Guidelines for Implementation of Inclusive Education in Madrasah *(Panduan Penyelenggaran Madrasah Inklusif)*		ü	ü
2023	Establishment of Inclusive Madrasah (Penetapan Madrasah Inklusif)		ü	ü
2023	(Draft) MoRA Roadmap of Inclusive Education in Islamic Religious Education, Directorate Pai Kemenag		ü	ü
2023	(Draft) Special Guidance Teacher Competency Guidelines in General and Vocational Education Units – Ministry of Education, Directorate General of Teachers and Education Personnel, Directorate of Secondary Education and Special Education Teachers in 2023, Derivative of the Director General of Teachers GTK, Ministry of Education No. 6565/B/GT/2020 concerning Competency Models in Teacher Professional Development	ü		ü

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[43] *Akomodasi Yang Layak Untuk Peserta Didik Penyandang Disabilitas Pada Satuan Pendidikan Anak Usia Dini Formal, Pendidikan Dasar, Pendidikan Menengah, Dan Pendidikan Tinggi*

Ability for disability-inclusive education

The Ability component of the PDIA approach emphasizes the development of skills, knowledge and resources necessary for successful disability-inclusive education implementation. This has been a key aspect of INOVASI's contribution, which is not surprising given the technical nature of the partnership between INOVASI and the Government of Indonesia in which INOVASI is frequently requested for support addressing specific technical challenges or gaps.

Disability data for evidence-based policy implementation

Central to addressing the unique requirements of many students with disabilities is teachers' capacity to identify those who have disabilities. This aspect has constituted a substantial focus for INOVASI. The following description illustrates the journey of a solution to the problem of disability identification, which required years of trialling, improving, multi-layered communication and collaboration, and extensive parallel work in regulatory reform.

The approach to identifying disability in education systems in Indonesia, and many other countries, has historically been based on a medical model that categorizes children by health conditions or impairments. Previously, the Ministry of Education based its approach, with more than 14 medically based categories, on the Regulation of the Minister of Education No. 70/2009 concerning inclusive education for students who have disabilities and have special intelligence and/or talent potential. In education systems, medically-based disability categories are often used and interpreted inconsistently by teachers, particularly for children with learning difficulties, intellectual disabilities, and emotional or behavioural problems - and such labels do not indicate the severity of difficulties a student may face. Additionally, these categories do not capture the everyday functioning of children or provide guidance on individualized support as functional abilities vary widely within and across these categories. Medical diagnoses of categories such as autism spectrum disorder, attention deficit hyperactivity disorder and learning disorders are poor predictors of educational participation (Anaby et al. 2013) and functional abilities are diverse within and across these categories (Lee 2011). Additionally,

medical labels have led to an emphasis on 'fixing' the child through rehabilitation and remedial education to fit into a regular school, rather than overcoming educational barriers.

Part of TASS's early work with the Ministry of Education and the Ministry of Religious Affairs related to a problem regarding a lack of appropriate data in the education management information systems (*Dapodik* and EMIS) on which to be able to undertake resource planning. Simultaneously, INOVASI's work in NTB was uncovering a parallel problem, that disability identification was a challenge for many teachers and schools. In his critique of inclusive education in Indonesia for children with special needs, Efendi (2018) proposed several variables required to ensure Indonesia's planning and implementation of inclusive education is based on the needs and characteristics of learners, including: (i) the number of children with disabilities; (ii) the type of difficulties of each child; (iii) the degree of difficulty of each child; (iv) availability and readiness of education personnel; and (v) availability of facilities. This proposal aligns with INOVASI and TASS's learnings about the type of data needed by governments and schools.

INOVASI posited that if the approach to identifying disability in students were strengthened using a teacher-driven system based on functional difficulties instead of medical or impairment categories, a number of benefits would materialise: the ministries could plan the resources required for learning supports and reasonable accommodations more accurately and in advance, and monitor progress against the disability-inclusive education policies; teachers would have better information to plan for differentiated instruction and assessment; schools could plan actions and budgets to make the schools more inclusive; local governments would have proper data with which they could more effectively undertake their responsibilities for managing an inclusive education system; families would have better information to support learning at home and to undertake relevant referrals as needed; and most importantly, students would experience a better quality education.

This led to work developing and testing the Student Learning Profile (*Profil Belajar Siswa* – PBS). Through an extensive consensus-building process (or 'making the problem matter' in INOVASI's PDIA terms), working with many representatives from both ministries, organisations

of persons with disabilities and sector specialists, the student learning profile was developed. At the time, the Ministry of Education had an imperative to plan effectively for an appropriate workforce for special and inclusive education. The Student Learning Profile provided the potential to gather evidence to inform competencies required by teachers relating to the Ministry of Education Regulation No.32/2008 concerning Standards of Academic Qualifications. For this reason, the online platform selected to host the PBS was the Continuous Professional Development Management Information System (SIMPKB).

In 2019, the Ministry of Education and INOVASI piloted data collection using the Student Learning Profile (PBS) instrument, as integrated in SIMPKB. Data were collected from approximately 11,000 students in 2,300 schools and madrasah across all provinces. The data provided evidence of the need for additional competencies for classroom teachers and special education teachers. During the pilot, inputs from teachers, schools, education offices, universities and other institutions helped refine the Student Learning Profile and improve data collection, entry and analysis.

Using PDIA to find a solution to a systemic disability data challenge: During the school year 2021-22, INOVASI contracted an organisation, UX Indonesia, to conduct independent user-experience testing on the Student Learning Profile, which helped to iteratively improve the instrument and prototype an application for use on mobile devices. Now that the profile was in a form more suitable for scaling, the next step was integrating it into the education management information systems of the Ministry of Education and the Ministry of Religious Affairs – *Dapodik* and EMIS. However, as the directorates responsible for these systems were still governed by regulations that required medical or diagnostic disability identification, progress in integrating the Student Learning Profile was slow. In relation to the Triple A elements of increasing the change space (authorization, ability, and acceptance), purely focusing on Ability through a functional disability identification tool and app was inadequate to achieve the solution. The stumbling block was a lack of Authority of the data directorates to use this approach. This required flexibility and an adaptation to the priorities and focus of INOVASI's disability team, towards building the policy space for this functional measurement approach.

INOVASI and TASS's assistance to policy reform processes enabled advocacy and opportunities to share evidence to support the use of a functional approach to identifying disability as an alternative to medical

approaches. After months of policy development meetings (in which disability identification was only one of many issues), in 2022 regulations were developed in both ministries which allowed for a functional approach to disability identification, enabling use of the Student Learning Profile as the basis for identifying and collecting data on students with disabilities. This enabled momentum to pick up with the directorates responsible for *Dapodik* and EMIS.

In 2022, through technical discussions with the *Dapodik* team, it became clear that Student Learning Profile data had to be collected in a separate application instead of directly into the *Dapodik* management system. INOVASI contracted the Cipta Lantar Media (LCM) organisation, recommended by the Ministry of Education[44], to develop a separate Student Learning Profile application (based on the user-experience testing prototype) and to enable integration of the data into Dapodik. The Student Learning Profile is being incorporated into the Ministry of Religious Affairs' EMIS management system using the LCM app, consistent with the application developed for the *Dapodik* system. Both ministries piloted the Student Learning Profile instrument with INOVASI support. The Ministry of Religious Affairs will use the Student Learning Profile app nationally in the Madrasah New Student Admissions.

INOVASI and LCM conducted several trials of the new app with teachers from primary, junior secondary, senior secondary, and vocational levels, followed by further improvements focusing on the core algorithm responsible for disability identification. *Dapodik* and EMIS teams undertook a larger-scale pilot without INOVASI's direct assistance, across multiple provinces. In October 2023, the Student Learning Profile application became fully integrated with the *Dapodik* and EMIS data collection systems, enabling informed decisions for planning, budgeting, monitoring, and evaluation purposes, particularly in relation to reasonable accommodation for students with disabilities. INOVASI will continue to provide support to both the Ministry of Education and the Ministry of Religious Affairs developing dashboards and utilizing data effectively.

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44 Directorate of Secondary Teachers and Special Education

Merdeka Belajar

Technical support from INOVASI has contributed substantively to supporting the Government of Indonesia to deliver against the *Merdeka Belajar* reform aspirations, which directly support the inclusion of learners with disabilities.

Formative assessment and differentiated instruction: Arguably, one of INOVASI's strongest contributions to disability-inclusive education was its support to the development of the new curriculum and promotion of techniques within *Merdeka Belajar* of using formative assessment and differentiating teaching methods, content and assessment to students with diverse needs.

INOVASI bolstered teacher capabilities in formative assessment and differentiated instruction for foundational skills within the *Kurikulum Merdeka*. This assistance included technical expertise, training, evidence of improved learning outcomes from Phase I pilot programs, and international experience, facilitating the development of guidelines, standards, and teaching resources on the national platform. INOVASI assisted partner provinces and districts in forming curriculum implementation teams, promoting awareness of the new curriculum, establishing systems for conducting diagnostic assessments in schools and creating lesson plans for differentiated learning. Supervisor training programs were run to mentor teachers and monitor learning outcomes. The success of these efforts, particularly in NTB, NTT, and North Kalimantan, has been recognized by national officials during provincial visits and influenced national policy implementation strategies.

As explained in Chapter 4, INOVASI provided support to district education offices, the Ministry 888898of Religious Affairs, and teacher training institute teams in developing differentiated literacy teaching materials for the new curriculum, utilizing a three-level cascade approach. For instance, in NTB, 142 district heads and supervisors received training, who then trained 150 school principals who in turn trained 1,152 teachers. These teachers were then able to conduct assessments and establish literacy improvement targets for their students. Over time, local stakeholders, including district education offices, the Ministry of Religious Affairs, teacher training institutions,

supervisors, and facilitators, gradually assumed a larger role in content development and training, with reduced technical support from INOVASI. Working with district heads and supervisors as facilitators of the differentiated instruction was key to the sustainability of teacher training as it strengthened the capacity of existing structures and responsibilities. Efforts elsewhere training teachers and expecting them to train other teachers were less successful as it required them to undertake a job that is outside of their normal responsibility and for which there is little endorsement.

The reforms introduced by INOVASI have been widely adopted, as evidenced by all 14 partner districts implementing approaches previously funded or managed by INOVASI. These approaches include formative assessment and teacher training in differentiated instruction. Scaling out successful practices shown to improve learning outcomes is primarily driven by partner district agencies utilizing their own systems and funds, with support from local district facilitators previously trained by INOVASI. Schools in NTT saw the benefits of assessing students and then differentiating learning, which influenced the local education authority to develop policy and use its own funds. In North Kalimantan, INOVASI worked with the district to form a learning development team tasked with designing and developing curriculum content to be implemented district wide; many of the INOVASI-trained facilitators are members of this team. INOVASI provided limited technical support to the team, working alongside the facilitators, helping in the background, and providing quality assurance as needed. District acceptance of these approaches was enhanced by evidence from INOVASI's pilot initiatives.

Disability-focused tools for supporting teachers: INOVASI's support to the *Merdeka Belajar* reforms had a particular focus on collaboratively developing tools for supporting teachers to implement disability-inclusive education. Three examples are provided here: videos, handbooks, and a reading app.

The Ministry of Education's Directorate of Secondary Education and Special Education Teachers requested INOVASI to help facilitate development of 20 disability-inclusive education teaching modules targeting teachers with non-special education backgrounds. These 'microlearning' videos covered: Recognizing Inclusive Education;

Student Diversity; Curriculum and Learning that Accommodates Student Diversity; and Support Systems in Inclusive Education. The development of these videos was for the Disability-Inclusive Education Module on the Ministry's online platform, Platform Merdeka Mengajar (PMM). This builds on the disability-inclusive education teacher training modules developed by INOVASI which were undertaken by 137,000 participants (teachers, district secretaries, supervisors and education personnel) across just under 64,000 schools.

Figure 9 Completion of inclusive education training on *Guru Belajar dan Berbagi* Platform
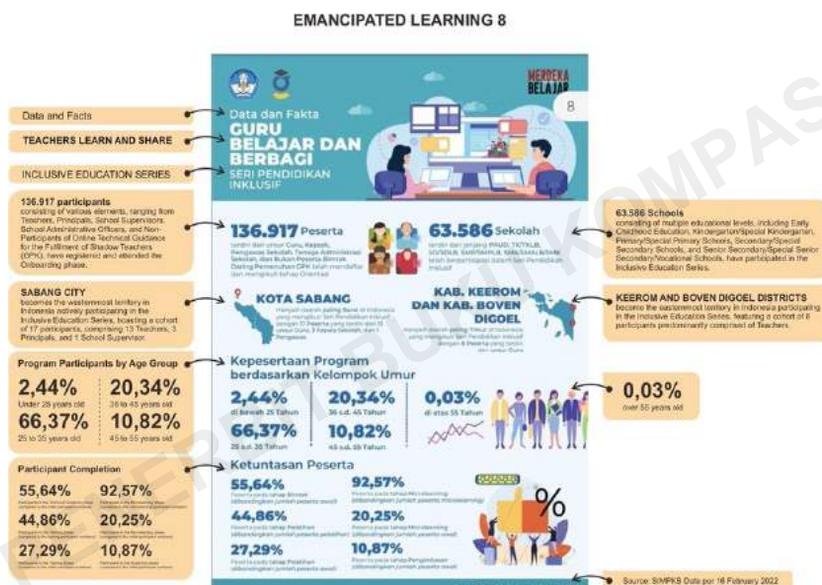
INOVASI partnered with the Ministry of Education to develop **handbooks** to help teachers and parents teach and support the growth of children with disabilities. The teacher handbook targets teachers without special education backgrounds. To develop these, INOVASI assembled a writing team of individuals with various disabilities, therapists, and academics and held consultations with experts. Iterative rounds of revisions followed testing of the usability and usefulness of the handbooks by teachers and parents in Central Lombok and East Lombok Regencies. Throughout this journey, INOVASI collaborated closely with the Ministry of Education and the Ministry of Religious

Affairs, ensuring the handbooks' endorsement for nationwide dissemination through the PMM platform. INOVASI also met with education departments to gain support for handbook distribution. An alliance between INOVASI and the State University of Malang orchestrated public discussions and provided a focus for disseminating awareness of the resources.

INOVASI supported the development of an application called **Bookbot Indonesia**, aimed at children with dyslexia and other reading difficulties. The app provides an interactive reading experience for children by listening to them, providing real-time feedback, and assessing their progress. Originally developed for English-speaking audiences, the Bahasa Indonesia version was released in 2022. It has features such as reading books aloud with word and line highlighting, tapping words to hear their pronunciation, and assisting children in correcting their reading of incorrect words. The app is linked to Kurikulum Merdeka and follows a detailed scope and sequence for levelled books. INOVASI recognises the value Bookbot may have for the many children who use languages other than Bahasa Indonesia at home. This is especially significant in potentially addressing limitations that parents who lack proficiency in Bahasa Indonesia may encounter in helping their children learn to read.

Teacher training institutes in NTB: Partnerships with teacher training institutions were an important sustainability and scale out mechanism. As described in Chapter 4, INOVASI's RELASI literacy volunteer program in NTB supports children with learning difficulties and has been integrated into teacher training institutes and community service programs, including Hamzanwadi Institute of Islamic Religion and Taman Siswa Teachers' College. Between 2020 and 2023, through PDIA approaches to increase take-up, RELASI expanded and is now delivered by 16 teacher training institutes, 82 civil society organizations, and four village administrations. Volunteers receive support through resources on the online NTB Belajar platform and participation in events like the RELASI camp organized by the NTB Reading Consortium and Forum RELASI, with technical input from INOVASI, including a talk show episode on digital-based literacy learning.

In Central Lombok, The *Semua Anak Cerdas* (All children are clever) program led by the University of Mataram, has successfully enhanced student literacy outcomes. The Ministry of Religious Affairs' Central Lombok education office invited officials, supervisors, and madrasah principals to learn differentiated teaching via the program. Following this, at the Central Lombok Ministry of Religious Affairs' request, INOVASI aided training for all madrasah supervisors. Subsequently, the ministry independently trained grade 1-6 madrasah teachers and principals in Central Lombok, utilizing trained supervisors as facilitators, funded by School Operational Assistance (BOS) funds, Bank Dinas, and Bank Syari'ah Indonesia. This training encompassed 2,000+ teachers and principals from 305 madrasahs. The program's success inspired Ministry of Religion offices in Mataram, West Lombok, and North Lombok to initiate similar efforts using schools' BOS funds exclusively.

Acceptance for disability-inclusive education

The third A required to create the change space for disability-inclusive education relates to Acceptance on the part of implementing officials, teachers and others, at each level of implementation. INOVASI's work in the domain of acceptance has been relatively limited compared to the work to gain an authorising environment and to create the ability for disability-inclusive education. To a large extent, at the level of the central government and within some subnational governments, stakeholder acceptance of the need for change for disability-inclusive education pre-dates the work of INOVASI. This relates perhaps primarily to the Education For All movement and Indonesia's ratification of the Convention on the Rights of Persons with Disabilities, plus years of work by organisations of people with disabilities, universities, branches of government working on human rights, civil society organisations and development partners.

DFAT's whole-of-program approach to increasing access to rights for people with disability is an interesting lesson. DFAT has prioritised disability inclusion within many programs and sectors, raising the profile of disability, supporting formalization of rights within legal frameworks, strengthening participation of people with disability and their representative organisations, requiring disability performance indicators and disaggregated reporting data, and developing leadership

for disability rights. This has undoubtedly contributed to a prevailing acceptance of disability inclusion as a priority, creating an environment which is open to specific technical contributions such as regulations, guidelines and disability identification tools.

Whilst INOVASI's work in disability data has been discussed here as a contribution to the Ability for disability-inclusive education, the overlap with how this contributes to Acceptance is notable. In NTB, the strategic communication of evidence arising from the inclusive education data dashboard stands out as an example which led to a direct rise in government acceptance and prioritisation of disability-inclusive education. Similarly, disability data from the early piloting of the Student Learning Profile (*Profil Belajar Siswa*, PBS) was effectively used to build confidence and momentum in use of individual student needs data to inform resource planning.

Acceptance needs to occur at many levels, and much work is yet to be done to achieve widespread acceptance for disability-inclusive education at the classroom level and to see an increase in the number of provinces and districts that prioritise the changes required.

Insights and future considerations

While INOVASI's involvement in classroom-level disability-inclusive education has been relatively modest compared to extensive initiatives in areas like literacy, our primary focus has been on regulatory and systemic improvements. We anticipate that these initiatives will ultimately yield tangible improvements for children with disabilities in a large proportion of Indonesia's classrooms. The harmonization of the disability law within educational regulatory reform signifies a dedicated effort to establish a comprehensive legal framework that champions disability-inclusive education.

As discussed in other chapters, Problem-Driven Iterative Adaptation (PDIA) emphasizes tackling specific problems or challenges through iterative and adaptive processes. It involves identifying the root causes of problems, experimenting with potential solutions, and adapting approaches based on feedback and learning. In INOVASI's work on disability-inclusive education, PDIA approaches were useful in addressing challenges identified by schools and local governments in

NTB, as well as in collaborations with the Ministry of Education and the Ministry of Religious Affairs. By being demand-generated and focusing on specific problems related to disability identification and data systems, regulatory reform, workforce development, reasonable accommodations, and support systems, INOVASI was able to contribute with targeted responses and iterate on them based on feedback and evidence.

PDIA emphasizes learning and experimentation as integral components of the problem-solving process. INOVASI's disability work required a learning mindset, continuously seeking feedback, testing different solutions, and adapting based on the results. This adaptive approach, requiring flexibility and responsiveness, allowed for innovation as solutions were refined and improved over time. The interconnectedness of the issues at both national and subnational levels related to disability identification, data systems, initial regulatory misalignment and work towards eventual alignment, and the interlinked content of guidance handbooks and videos was a prime example of the iterative and adaptive nature of disability work over the eight years of INOVASI. To a large extent, the problem of disability identification, leading to the development of the Student Learning Profile, was at the origin of this journey.

Consistent with the principles of PDIA, INOVASI fostered and benefited from a culture of collaboration, innovation, and continuous learning among stakeholders involved in addressing challenges in systems and practices influencing disability-inclusive education. **Sustained partnerships** with government and other stakeholders were a critical element enabling INOVASI to contribute meaningfully to disability-inclusive education reform. Had the program finished after Phase I, initial versions of the Student Learning Profile (PBS) may well be sitting on a government shelf, along with earlier versions of the teacher support materials which would not have enabled the capabilities and responsibilities implicit in the new regulations.

At both national and subnational levels, progress towards disability-inclusive education required INOVASI to play the role of broker and facilitator, connecting stakeholders including national and local government, organisations of persons with disabilities, teacher training institutions, schools, and madrasah. Participation of people with

disabilities enabled development of contextualised and appropriate policies, materials, and approaches. Through regular inputs by INOVASI-contracted advisors with disabilities into technical products and policy development, the Ministry of Education witnessed the benefits of involving people with personal experience of disability, and this became a common request from the government. INOVASI's flexibility in contracting advisors has been important in facilitating access to the expertise of people with disabilities on behalf of the Ministry of Education.

In NTB, INOVASI transitioned from delivering training itself to involving local actors, including districts, teacher training institutes, civil society organizations, and provincial teacher training and education quality assurance centres, to improve sustainability and ownership of the changes. The learnings from these partnerships are critical to take forward. The scale of communication and capability development over coming years to realise the ambitions of *Merdeka Belajar* and the regulatory reforms is extraordinary. Partnerships and collaboration must remain central in any disability-inclusive education scale out strategy.

Taking the regulations and systems for disability-inclusive education to scale will require a far greater programmatic focus on Acceptance. A significant challenge lies in fostering acceptance among teachers, students, and parents – enabling them to acknowledge the need for change, understand its implications, and embrace the value of inclusive education. Gaps in acceptance often stem from misconceptions, lack of awareness, and limited exposure to inclusive education practices.

Whilst Authority for disability-inclusive education is supported through improved regulations, and Ability can be enabled through tools, handbooks, videos and apps, the teacher workforce is enormous, and a significant challenge remains to achieve Acceptance and Ability for disability-inclusive education amongst this workforce. Efforts to ensure Authority, Ability and Acceptance for disability-inclusive education must be considered and achieved in the different geographies and levels in future programming.

Initiatives will need to focus on sensitizing teachers, students, and parents to the benefits of inclusive education, addressing concerns and

providing training to bridge these acceptance gaps. Teachers need to be empowered with the skills and knowledge required for successful inclusive education. When teachers have the confidence to manage diverse learning needs and are provided with tools and resources that facilitate inclusive practices, they are more likely to embrace the idea of including children with disabilities in their classrooms.

Supporting teachers to successfully include children with disabilities can also build positive local examples and stories, which can serve to positively influence other schools, local governments, and community perceptions. Acceptance within communities directly impacts the freedom families perceive to enrol their children with disabilities in schools, as well as social inclusion more broadly. Community engagement, partnerships with organisations for people with disabilities (OPDs), awareness campaigns, challenging stigmatizing beliefs, and involvement of local leaders and influencers can help bridge these acceptance gaps.

Policy areas and systems that need further development or support for implementation

To translate reforms into tangible changes in the classroom, various efforts are needed including: communicating with subnational governments, schools and communities regarding disability-inclusive education reforms; promoting the *Merdeka Mengajar* platform (PMM) and the available inclusive education resources for enhancing teachers' and parents' knowledge and skills; assisting subnational governments in adapting national regulations and standards to local contexts; enhancing disability-inclusive education within teacher training institutions; supporting teachers and principals; and monitoring, evaluation, reflection and feedback loops to identify innovations and successes and support scaling where proven.

Support is needed for sensitization, recruitment, training, infrastructure improvements, access to assistive technologies, community awareness, and linkages between different sectors, such as health. Acceptance within subnational governments, supervisors, schools, and madrasah of the changes required to achieve disability-inclusive education will require partnerships with OPDs, sharing and learning within and between districts, dissemination of evidence, and

multiple communications tools and approaches. The widespread professional development required to support the rollout of the disability-inclusive education reforms is heavily reliant on effective access to the PMM platform.

Partial implementation of disability-inclusive education poses risks for children with disabilities, including being placed in mainstream classrooms without support or assistive devices, and being taught by teachers who lack skills and confidence. This can lead to negative educational experiences for children with disabilities, their families, and teachers – and resistance from the teaching profession to inclusion. While decentralization has contributed positively to disability-inclusive education in Indonesia, lessons around inconsistent application of laws and regulations leading to unequal access for children with disabilities in different parts of the country must be heeded. Ensuring that the new regulations and systems are implemented consistently and equitably will require trialling, reflecting, adapting, sharing, communication and collaboration between multiple stakeholders.

The Ministry of Education's newly established provincial-level centres for education quality assurance (BPMP) and teacher training (BGP) in all 34 provinces have the aim of acting as facilitators, assisting provinces and districts in implementing *Kurikulum Merdeka* and its associated reforms. These centres have the potential to play a crucial role in promoting disability-inclusive education subnationally by supporting connections between national regulatory reforms and raising awareness and implementation of these reforms in schools.

Recommendations

Various actions would facilitate implementation of the reforms. Given the scale of change required, the following recommendations will need collaboration and partnerships between governments, development partners, organisations of persons with disabilities and other civil society organisations, teacher training institutions, and the private sector.

Subnational governments could be supported in contextualizing national regulations and standards. This involves development of local

regulations, roadmaps, forward plans, and budgets that align with the goals of disability-inclusive education.

Support could be provided to subnational governments and schools to implement newly updated disability data processes to ensure availability of data that support reasonable accommodations. Analysis of disaggregated **disability data** that is intersectional, reliable and comprehensive, is required to inform targeting and transformational change, through better planning and budgeting at national and subnational levels.

Awareness-raising regarding the Regulations on Reasonable Accommodation and Disability Service Units is essential within all directorates and institutions at national and subnational levels. Integrating disability-inclusion into other **standards**, such as assessment standards and facilities standards, could be a priority. Developing comprehensive **guidelines** to facilitate the application of these is also essential. Intersectional, reliable, and comprehensive data systems could be utilised for informed decision-making, targeted interventions, and improved planning and budgeting at both national and subnational levels.

Schools could receive support for implementing the regulations, building capability of teachers, understanding mechanisms for accessing resources, and utilising updated disability data processes to ensure data that supports reasonable accommodations.

Special attention could be given to **teacher training institutions** to build the capabilities of pre-service and in-service teachers to ensure they are well-prepared to provide effective support to students with disabilities. Additionally, training for special education teachers should be undertaken in line with the new competency standards.

Efforts at both national and subnational levels could focus on planning and implementing the scale-up of well-resourced and sustainable **Disability Service Units**. These units are vital in strengthening disability inclusion across all education units, including universities.

OPDs and individuals with disabilities should be actively involved in every stage and at every level, in planning, implementation,

monitoring and evaluation, to ensure the successful provision of reasonable accommodations for students with disabilities.

Teachers would benefit from guidance and support in accessing and effectively utilizing the **digital learning resources on PMM**. Involving teachers and people with disabilities in the ongoing development of these resources ensures their relevance and usefulness. Efforts could also be directed towards improving **digital and learning technologies** for students with disabilities and other sources of disadvantage and expanding its accessibility, particularly in marginalized or remote areas.

The **Grand Design of Disability-Inclusive Education** needs to be updated to align with the requirements related to reasonable accommodations for students with disabilities.

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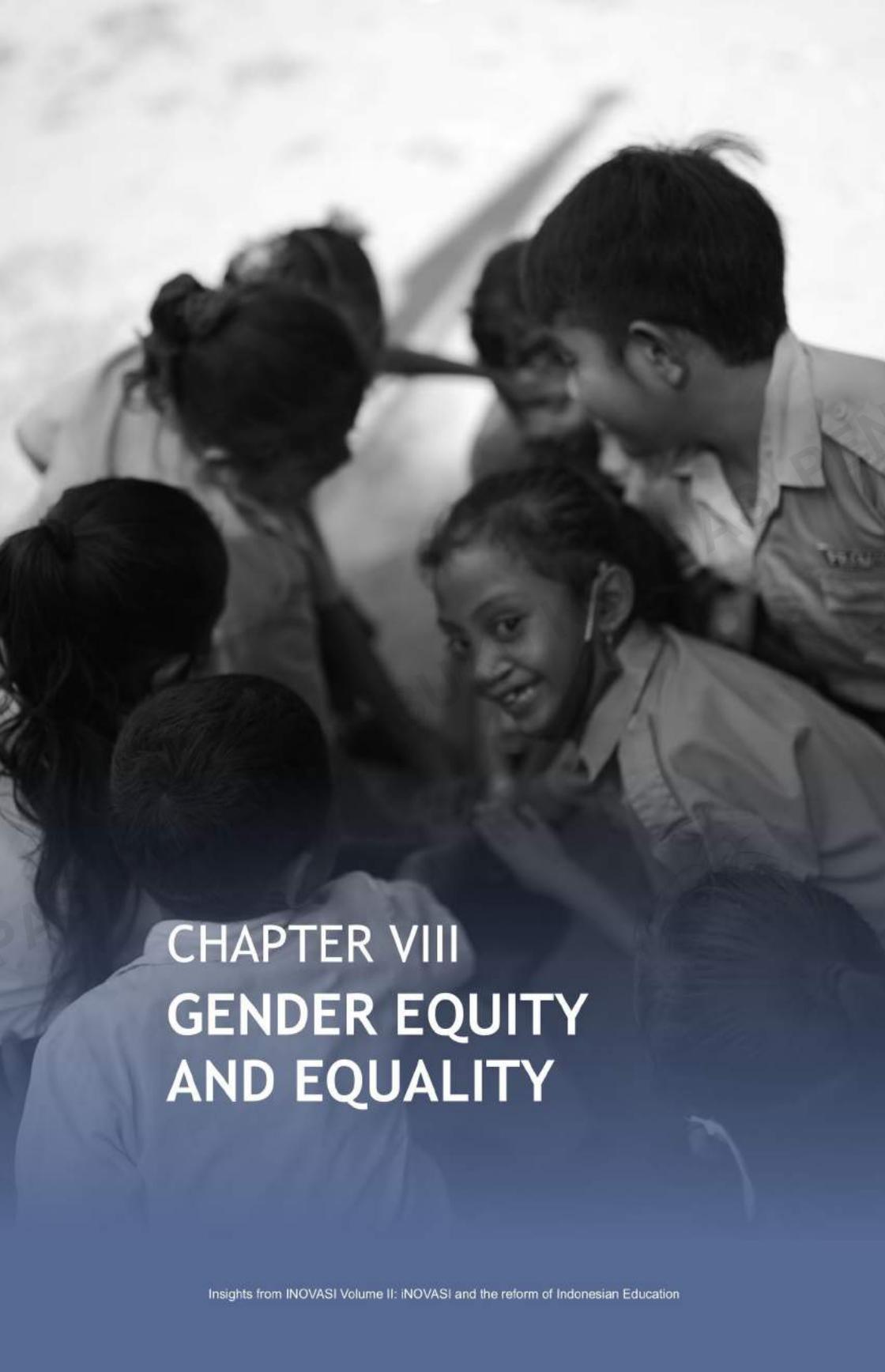
CHAPTER VIII
GENDER EQUITY AND EQUALITY

CHAPTER VIII: GENDER EQUITY AND EQUALITY

Felicity Pascoe

Abstract

This story starts with finding entry points for working within gender equality issues. It records the gradual move towards an approach to some central gender issues touching on norms; made possible through finding a niche within the Indonesian Government's own values and priorities in gender equality. The narrative lets the reader into a 'real time' application of the principles of Problem Driven Iterative Adaptation (PDIA), narrating the reasoning that took place about the problem, decision-making on strategies, reading the lessons for adaptation from difficulties getting traction; and the contexts where local acceptance or national authorisation were most likely. As the chapter moves from its initial 'hooks' in gender sensitive classrooms to developing government packages for influencing norms and behaviours in schools, it is an illustration of the necessity and the power of ownership and authorisation for any norm-changing activity.

Introduction

This chapter reflects on some of the key policy and program reforms in Indonesia over the past eight years that have promoted gender equity towards gender equality in education. Within these policy developments we look at how INOVASI has leveraged, created

opportunities, and adapted to address gender issues that promote a safer and more supportive learning environment. We also look at the implications of progress made for future programming. In doing so, this chapter has three parts.

The first section overviews the key gender equality issues in education and their status when INOVASI began Phase I. The gender-related issues are: the presence of gender bias and stereotypes in learning materials; the need for more positive role models in schools, especially women leaders; schools' inability to meet water, sanitation and hygiene (WASH) standards; bullying and sexual violence in schools; and child marriage. It overviews the policy environment around these issues and reflects on some of the recent developments and progress made to address them.

The second section then explores INOVASI's approach and contributions to help address the issues overviewed in the first section. We overview INOVASI's main gender activities which adopted different approaches to test different solutions towards change. We reflect on how these approaches evolved as we learned, as opportunities presented themselves, or as the operating context changed. Analysis here uses the Triple A lens (ability, authority and acceptance). More specifically, the extent to which the issue being addressed had sufficient ability, authority and acceptance from government or implementing partners to enable changes we were working towards.

Finally, based on results and progress INOVASI has contributed towards over the past eight years, the third section reflects on implications for future programming to build upon and consolidate early success emerging from INOVASI's work presented in this chapter.

The issue and its policy context

Greater attention to the nuanced gender issues in education is needed to improve the learning environment and contribute to improved learning outcomes for boys and girls Indonesia achieved gender parity in the Net Enrolment Rate (NER) at the primary level (1.0) in 2019 (World Bank 2020). This significant achievement followed improvements over decades to education policy and programs that included a strong focus on gender mainstreaming.

However, beyond achieving equal access to primary level education, Indonesia has been slower to effectively address the more nuanced gender issues that affect the quality of the learning environment for girls and boys. This includes, but is not limited to, removing gender bias and stereotypes from teaching practices and learning materials, ensuring supportive school facilities especially for menstruating girls, and ensuring students are safe and child protection is in place.

At the highest level, Indonesia's policy commitment to gender equality is clear. Indonesia ratified the UN Convention on the Rights of the Child in 1984 and the UN Convention on the Elimination of Discrimination against Women (CEDAW) in 2000. Specifically in education, Indonesia has also committed to the Education for All (EFA) Movement (UNESCO 2023a) through which the Sustainable Development Goal (SDG) 4 on education is implemented. SDG 4 aims to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' and to 'eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations' (UNESCO 2023b). The Education 2030 Framework for Action acknowledges the significance of gender equality in achieving education for all and pledges: to support gender-sensitive planning, policies, and learning environments; to eradicate gender-based violence and discrimination in schools; and to incorporate gender issues in curricula and teacher training (UNESCO 2023c).

The government has acknowledged that students feeling safe and comfortable physically and emotionally and treated equally without discrimination based on gender or other factors, is a necessary condition for meaningful learning to occur in schools (Bappenas 2020; MoECRT 2020). The Ministry of Education included gender equality as a key principle in its strategic planning document *(StraNas)* and issued Regulation No.84/2008 on Guidelines for the Implementation of Gender Mainstreaming. The ministry's Gender Responsive School Indicators (2014) and Pocketbook on Gender Mainstreaming (2016) provide guidance to schools to improve the quality of learning and the learning environment, particularly for girls. The pocketbook notes that "stereotypes and sexism limit girls' potential growth and development

because internalising negative stereotypes impacts their self-esteem and ultimately academic performance" (MoECRT 2016).

However, this guidance has not always been consistent. The Ministry of Educations' Regulation No.19/2005 on the National Standards of Education does not explicitly and meaningfully reference gender equality within the eight standards of education and their measurements. The Ministry of Education's recent Regulation No.7/2022 on Content Standards for Early Childhood Education, Elementary, and Junior High level articulates gender as important, yet gender equality messaging only appears in learning content for Bahasa Indonesia and Religion.

Some of the gender-based factors that affect quality of education and the important role a safe and supportive learning environment plays in learning outcomes in Indonesia have been documented. A World Bank survey in 2018 found that boys are more likely to miss school than girls, with 55 percent of boys reporting missing school at least one day a month, compared with 44 percent of girls. Data from the study show that boys' lower grades and higher absenteeism rates are correlated with lower socioemotional skills, demotivating mindsets, and low perception of classroom environments (World Bank, 2018). In terms of repeating academic years, the repetition rates at the primary level are higher for boys. In 2018, nearly 1.7 percent of boys repeated grades in primary school, compared with 0.9 percent of girls (World Bank, 2020). Related to learning outcomes, INOVASI's Learning Gap study (2022) did however find that during the pandemic, female students experienced a significantly greater learning loss, particularly in numeracy, compared to males during school closures (equivalent to 7 months of learning compared to 4 months for boys). According to INOVASI studies, a variety of factors affect learning. These include the curriculum, language of instruction, assessment methods, remoteness of the school, role models, teacher expectations, teaching styles, WASH facilities, and the way teachers praise and discipline (INOVASI 2020a and 2020b).

To explore these issues further, and how the nuanced gender issues affect the learning environment for boys and girls, the next few sections identify specific gender issues in education. We look at the status of these issues when INOVASI began Phase I and the policy environment

surrounding them. We reflect on some of the recent developments to improve, particularly at the policy level.

Removing gender bias and negative stereotypes from textbooks and non-textbooks

Teaching and learning materials in schools, including textbooks and non-textbooks, tend to present traditional stereotypes of roles of boys and girls, women and men in professions, domestic and public spaces. Whether explicitly or implicitly presented, these gendered social norms shape a child's perceptions and attitudes towards behaviours for males and females and influence their aspirations (UNESCO, 2020). The Ministry of Education has recognised the need to address gender bias and stereotypes in education materials in early years. The Ministry of Education (2016)[45] noted that the long-term effects of gender bias for girls in the early years become most apparent in adolescence and so gender mainstreaming needs to begin during the early years of education. At the beginning of INOVASI Phase I, The Ministry of Education's Book Centre textbook and non-textbook review instruments included limited guidance on how to screen content and images to identify and remove gender bias and negative stereotypes in education materials. Towards the end of INOVASI Phase II, the Book Centre's increased attention to the removal of gender bias and negative stereotypes in education materials was evidence in their revised book review instrument and capacity support to book developers and reviewers. INOVASI's role in this change is explored in the second section of this chapter, below.

Positive role models, particularly women leaders

Schools play a key role in supporting students to achieve their potential. For this, girls and boys need to be able to see role models that can influence their aspirations, including women in leadership and men with positive leadership qualities to support all students. Further, there is emerging evidence on the connection between female school leaders and improved learning outcomes (UNICEF 2022). However, although women make up 70 per cent of primary school teachers in Indonesia, less than half of school principals in these schools are women, and only

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[45] MOCERT (2016) Pocketbook Gender Mainstreaming in Education (Pocket_Book-revisi-ok.indd (kemdikbud.go.id))

about one-third of school principals in Islamic schools are women (Margret, et al. 2021). In our survey data across 385 schools in four provinces showed that women made up 82 per cent of the grades one, two and three teaching staff but only 39 per of the school principals (INOVASI, 2020b).

Evidence supports the need for more women in leadership roles. Our studies showed that female primary school principals were perceived by their teachers as having better school leadership and management capacities overall compared to perceptions of male school principals by their teachers. INOVASI's survey of 567 teachers and 199 school principals across four provinces[46] found that female teachers and female principals (compared to their male colleagues) allocated more funding to areas that are widely recognised to improve the learning environment, such as teacher development, student learning activities, and libraries, whereas their male peers allocated more to salaries and school operational budgets (Arsendy et al. 2020).

However, women face greater challenges to taking up and retaining positions as principals compared to their male counterparts. The influence of gendered social norms and gender-neutral regulations present invisible challenges and obstacles to women in striving for leadership positions (Margaret et al. 2021; Ardiansa et al. 2022; World Bank 2021). Aspiring female teachers are deterred from applying with no clear information about when and where successful candidates would be assigned as principals. Other factors include lengthy training (nine months) and distance of training venues far from home. In general, gendered social norms impacts women's choices and stakeholder's perception on women and men as principals (Margret et al. 2021). Towards the end of Phase II, The Ministry of Education began discussions on how to support aspiring female principals. INOVASI's role in drawing attention to this this issue is explored in the second section, below.

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[46] East Java, Nusa Tenggara Tengah, NTB and North Kalimantan

Meeting standards for water, sanitation and hygiene (WASH) facilities

A large portion of schools still do not meet national standards for WASH facilities. In 2019, the Ministry's basic education management system (Dapodik) reported that 22 percent of Ministry of Education schools did not have access to water; 8.2 percent of schools did not have a functional (usable)[47] toilet and 25 percent of Ministry of Education schools do not have gender-separated toilets, and 45 percent of special schools do not have separate toilets for boys and girls (Afkar et al 2021). School physical environments are intrinsically linked to learning and health-related needs. Schools without safe water, adequate sanitation and hygiene (WASH) facilities tend to have lower enrolment and increased absenteeism, that limits students' progress. A study in Indonesia on menstrual hygiene management and school absenteeism in four provinces[48] (Davis et al, 2018) found that girls in rural areas and/or NTT province were almost four times more likely to miss school due to menstruation than those in urban areas. The study reported absenteeism was significantly higher among girls in schools without water or toilet paper in all individual toilet compartments, and without a bin in each toilet compartment. Although data on the link between absenteeism and educational outcomes is limited in Indonesia, evidence on this link from international studies shows it is plausible that absenteeism due to menstruation contributes to poorer education and health outcomes among Indonesian girls (Davis et al, 2018).

INOVASI's baseline school survey showed that 65 percent (383 schools) had no separate toilets for girls and boys (East Java 52 percent, North Kalimantan 79 percent, West Nusa Tenggara 60 percent, East Nusa Tenggara 93 percent). Only 20 percent of the schools surveyed had gender-separated toilets for teachers and less than two percent of schools had disability-accessible toilets. Girls are impacted disproportionately to boys by the lack of access to improved hygiene and gender-separated sanitation and facilities in schools. Ensuring these services is therefore essential to achieving Sustainable Development Goal 4 (Afkar et al 2021). INOVASI's role during Phase

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[47] *Definition of usable toilets in Dapodik*: Toilets function properly for students, and there is clean water available for the needs of the toilet and wiping (anal washing). Water can be sourced from a faucet that flows clean water or there is a tub/water reservoir in the latrine which holds enough clean water. Toilet must be walled, roofed, lockable and easy cleaned

[48] Nusa Tenggara Tengah, Papua, East Java, and South Sulawesi provinces.

II to successfully advocate for increased budget in two districts for the construction of separate gender toilets in schools is explained below.

Eliminating bullying and sexual violence in education institutions

The risks of bullying and violence for Indonesian boys and for girls are documented. The 2021, national survey for experiences of children and youth *(Survey Nasional Pengalaman Hidup Anak dan Remaja)* found that 13 to 17-year-old girls are at greater risk of sexual violence (8 in 100) compared to boys (4 in 100). Boys of the same age group are more at risk of physical violence. Bullying and sexual violence effect a student's quality of learning where it leads to school absenteeism, unwanted pregnancy, early drops outs and emotional stress and trauma. INOVASI's studies (the 2020 Gender Thematic Studies, 2021 Baseline Study for Gender Responsive Schools and Character Education in Sumba 2021) also found bullying in schools to be an issue. Although the prevalence for sexual violence among children in Indonesia reportedly decreased by two percent in 2022, the number of reported cases significantly increased from 6,980 in 2021 to 8,730 cases in 2022 (*Survei Pengalaman Hidup Anak dan Remaja*, or SNPHAR). The survey data from SNPHAR shows sexual violence to be a gendered issue with girls below 18 years of age being two times more likely to be victim of sexual violence compared to boys.

Since 2015, both the Ministry of Education and the Ministry of Religious Affairs have introduced regulations and guidelines that focus on anti-discrimination and children's rights against all forms of abuse, including sexual violence, in educational institutions. In 2020 the Ministry of Education introduced guidelines on the prevention and management of violence in primary schools. This was based on their Ministerial Regulation No.82/2015 and included the need for schools to adopt strategies, including those with a gender equality perspective, addressing issues of gender discrimination, avoiding gender stereotyping and promoting gender-sensitivity in the handling of cases of violence. In 2021, the Ministry of Education then issued Regulation No.30/2021 on the prevention and handling sexual violence cases at the university level. Most recently, the Ministry issued a Ministerial Regulation No.46/2023 on the prevention and handling of violence at the school level, updating previous guidance on violence in schools with

more comprehensive definitions and identification on the different forms of violence, including sexual violence.

The Ministry of Religious Affairs issued Regulation 73/2022 on the Handling and Prevention of Sexual Violence in Education Institutions. Beneath this regulation, they then issued the Technical Guidance (SK Direktorat Jenderal Pendidikan Islam No 3991 Year 2023) to Prevent Sexual Violence and Bullying in Madrasah. These regulations and guidelines for schools are a positive and important step forward. Schools will however continue to require support to effectively implement them. The Ministry of Education's and the Ministry of Religious Affairs' technical guidelines are designed to help strengthen their policies, systems and capacity to prevent bullying and sexual violence.

As part of efforts to eliminate bullying and sexual violence in schools, a broader perspective is needed beyond policies and prevention mechanisms. Programs on character education, the Pancasila Student Profile Strengthening Project (P5) and P5RA *(Profil Pelajar Pacasila Rahmatan Lil Alamin)*, and the development of 21st Century skills all can play a critical role. These programs relate to promoting respectful behaviour, tolerance, collaboration, critical thinking and finding solutions. These values and behaviours need to be introduced at the primary level so that by the time students enter high school, they are more likely to be modelling respectful behaviour, tolerance, open mindedness, and inclusion. The Ministry of National Development Planning (Bappenas 2013) acknowledges the need for a holistic approach to character building that creates an inclusive learning environment and improves overall performance of boys and girls. This involves using positive discipline techniques and encouraging respectful, gender-equal relationships; giving both boys and girls high and low status roles, such as student leadership, cleaning, and tidying; and making sure boys and girls are encouraged to participate in all extracurricular and sporting activities. INOVASI's role, particularly towards the end of Phase II to contribute to the Ministry of Religious Affairs' technical guidance on the elimination of bullying and sexual violence in madrasah, as well as piloting support to schools to improve policies in practice is explored in the next section below.

Eliminating child marriage

Finally, child marriage can lead to an increase in school dropouts and other risks that affect student learning, preventing children from reaching their potential. Indonesia's policy commitment to eliminating child marriage is clear. The government raised the minimum marriage age for women from 16 to 19 with the passage of Law No. 16/2019, The National Mid-Term Development Plan (2020-2024) sets targets to reduce child marriage rates in Indonesia (Bappenas 2020) and the 2020 National Strategy for the Prevention of Child Marriage (*Stranas* PPA) intends to lower the child marriage rate from 11.21% in 2018 to 8.74% in 2024 and 6.94% in 2030 (Bappenas 2020). In support of national efforts, some local regulations guarantee married children the right to continue their education. For example, East Lombok Regent Regulation (Perbup) No. 41/2020 concerning Child Marriage Prevention and requires the Education and Culture Office to provide strengthening, mentoring, and facilitation to married children to continue their education in the desired school (Fajriyah et al. 2022).

However, impacts of the COVID-19 pandemic increased the risk of child marriage in some parts of the country. Data from the Supreme Court of Indonesia showed that the number of marriage dispensation applications received in the religious courts increased from 23,386 in 2019 to 64,487 in 2020 (*Komnas Perempuan 2021)*. However, the actual number of child marriages is likely higher. The 33 child marriages examined in our study (2022) showed that only 12 of these marriages (37 percent) were registered. As schools reopened post-COVID-19, the policies concerning school openings tended to be dominated by a discourse on safe schools and learning recovery, with little to no focus on addressing the needs of child marriage victims. Despite local policy commitments in some regions to eliminate child marriage, and support students to continue studies, this has not always translated into action at the school level. This finding is also echoed in the Kore Global (2023) study that found, from 37 schools across three provinces (East Java, West Nusa Tenggara and East Nusa Tenggara) only one school, located on Madura Island, had a policy to actively support married students back to school. INOVASI could not find a school-based program in our targeted locations on the prevention of child marriage. In general, INOVASI found school staff to be aware of child marriage occurring in their communities, however often lacked

the knowledge and skills to develop a child marriage prevention program in their school. Following the completion in 2022 of INOVASI's qualitative study to better understand child marriage in the context of COVID-19 Pandemic impacts and school-related responses, INOVASI engaged with government and non-government stakeholders in NTB to work with selected schools to develop and pilot school programs on eliminating child marriage. This is explored in the second section of this chapter, below.

INOVASI's Response

The five key gender issues in the first section of the chapter, above, and their policy developments provide the context for this section. Here we will look at how INOVASI supported government and non-government stakeholders to address the above five issues. We will examine the different approaches adopted, entry points leveraged, adaptation as we learned, and the partnerships we engaged towards gender-related improvements in the learning environment. As mentioned previously, analysis in this section uses the Triple A lens (ability, authority and acceptance). First, we provide an overview of how INOVASI's approach differed between Phase I and Phase II before exploring each of the five issues in greater detail.

An introduction to our approach

During Phase I, understanding in INOVASI and TASS of the context surrounding the above nuanced gender issues and their impacts on the learning environment was developing. At the time, we focused on mainstreaming gender equality into a range of INOVASI activities and research. For example, INOVASI's analysis on female heads of school in 2020 included analysis on the gender-related issues associated with the gap between male and female principals at the primary level. Several activities on literacy and numeracy integrated approaches that saw modest results in reducing the boys' achievement gap. At this time, we did not implement targeted activities that had a primary focus to address gender equality outcomes. We were aware that the government was not prioritising the above issues through its priority education reforms and our assumption was that through mainstreaming gender into the delivery of broader INOVASI activities we could contribute

incrementally to gender results. Adopting this approach, our first four years of INOVASI's programming saw minimal results.

We learned from this. In Phase II we increased resourcing and adopted a more strategic twin-track approach[49], that included both mainstreaming efforts as well as targeted activities where gender equality outcomes were a primary objective. One of the targeted activities - our work on gender-responsive schooling - became our gender flagship (an area of focus where we felt we could generate significant results and have potential for broader impact). By the end of Phase II, at central and local levels, we had gained traction on:

- Strengthening the Ministry of Education's review instrument and process for textbooks and non-textbooks to remove gender bias and negative stereotypes from learning materials.
- Supporting changes at the school level in policies, facilities, and classroom practice for a more gender-responsive, safe and supportive learning environment.
- Increasing district budget allocation for the construction of separated girl's and boy's toilets in schools.
- Supporting the Ministry of Religious Affairs guidelines on eliminating bullying and sexual violence from madrasah and sharing practice from our pilot with central government.
- Piloting school programs to eliminate child marriage integrated into existing priority education programs, working with district government and local stakeholders.
- Encouraging greater attention at the central level to review and strengthen support for more female principals.

Our approach was quite fluid. We did not map all the above opportunities from the outset. The change space for an increased attention to many of these nuanced gender issues remained constrained. We needed to be responsive to opportunities that arose through other INOVASI activities (e.g. through long term relationships or policy issues where gender issues were seen as relevant and timely). We needed to continuously look for ways to connect gender initiatives

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[49] A twin-track approach implements both Gender Mainstreamed Activities' (activities where gender is not the key focus, but gender activities are part of a broader approach and mainstreamed into the activity. Results related to gender equality are expected but not the key expected outcome) and Gender Targeted Activities (Gender equality is the key focus of the activity and main outcomes contribute towards gender equality).

to the Ministry of Education and the Ministry of Religious Affair's priority programs and reforms.

By the end of Phase II our approach had evolved significantly. Dots had been connected across the above gender-targeted activities at central and subnational levels that were not always clear from the outset. We had gained some traction with partner directorates in national ministries, and improvements were being made to the learning environment that were directly addressing the more nuanced gender issues. Each of the above areas of work are explored below examining what we did and how, and the degree of change that was required to bring about improvements and results.

Strengthening the review process of textbooks and non-textbooks to address gender bias and representation

We leveraged INOVASI initiatives and partnerships outside its gender portfolio to push for continued improvements in how genders were represented in schoolbooks and learning resources. INOVASI had been providing technical support to the Ministry of Education's Book Centre *(Pusbuk)* on book development and strengthening the capacity of writers. As part of the Book Centre's process to update the review instrument in 2022, INOVASI broadened discussion with the Book Centre team on the importance of greater attention to the reviewing and identification gender bias and other stereotypes in book content and illustrations. the Book Centre's book review instrument included a question to check for gender bias, however it was general, and there was little guidance on how a reviewer would identify what gender bias might look like. This became an entry point for discussion.

The Book Centre then invited INOVASI to review their instrument and provide feedback on how to strengthen the review of gender bias. Our suggested modifications included reviewing books: to ensure positive and equal representation of both genders in content and image; to ensure the choice of words promotes gender equality so as not to reinforce negative gender stereotypes; and to promote positive representation of females in non-traditional professions and men in domestic roles. These revisions to the review instrument were accepted and INOVASI was invited by the Book Centre to train book reviewers and to support training for book authors and illustrators on gender-

responsive content and images (also covering disability inclusion and the inclusion of marginalised populations). In 2023, we then reviewed a sample of books prepared using the Book Centre's revised instrument. The changes made to the central review instrument will affect the content and review process of future textbooks and non-textbooks through the Book Centre's book development processes. If implemented well, it has the potential to impact positive messaging and representation of women and men, boys and girls, in the classroom learning environment on a national scale. Effective implementation requires book reviewers to have the capabilities to identify instances of gender bias, stereotypes and provide feedback on improvements to be made.

Upon review of a sample of 20 books developed and reviewed using the revised review instrument 11 books explicitly promoted gender equality (as well as disability inclusion and social inclusion). Not all book storylines provided the opportunity to explicitly reference positive gender equality messaging due to the nature of their storyline and/or characters. This was therefore a positive change from previous books where there was less of a tendency to take up opportunities to promote positive messaging about gender equality and inclusion.

INOVASI's desired changes to the review instrument and books subsequently prepared, came about firstly because the ability within the Book Centre was present. There was an existing team with the technical capacity to implement changes to the instrument and roll these changes out to book reviewers and developers. There were no fiscal constraints to the ability of the Book Centre to make these changes. The enhanced capacity of book reviewers to utilise the new instrument was strengthened through training and mentoring provided by INOVASI. The capacity of book developers to identify opportunities to integrate explicit messages of gender equality was enhanced with training provided by INOVASI under the leadership of the Book Centre. Second, the authority existed. The Book Centre was leading on reforms and had the decision-making power to change the review instrument and lead on its implementation with book reviewers. We therefore only needed to work on building acceptance and some strengthening capacity (enhancing the ability of users). The degree of change was relatively minor yet the potential for broad reaching change is strong given the textbooks and non-textbook are used in schools across the nation.

Finally, although book developers noted that they understood the importance of developing content free from gender bias, they also recognised the importance of developing books that children could relate to with content that reflected their daily lives. This highlights the need to work further on shifting gender norms. Shifting gender norms is a complex process that extends beyond the school environment to cultural and social norms and behaviours in the household and community. Here lies an opportunity for future programming to continue to work with book developers and reviewers while simultaneously working in a more strategic way with parents and school communities on gender norms and removing gender bias. This can also include working with other programs that focus more on social and gender norms and community behaviour change.

Supporting change in school policies, facilities and classroom practice for a safer and supportive learning environment

As mentioned above, the gender-responsive school training was our flagship. This activity was carried out as a pilot targeting ten schools in East Java reaching 2,521 students. The pilot cuts across all five issues explored in section one of this chapter, adopting a whole-of-school approach. Compared to our work with the Book Centre - focused on gender representation in book content and illustrations - we adopted a broad brushstroke to promote a range of gender-responsive improvements to school policies, facilities and classroom practice. We were aware this was not a priority issue for government and there was no government champion from the outset to partner with, who was motivated towards this change. We therefore chose to partner with a university to test how to build both acceptance and ability within school units to improve learning environments. Our assumption was that if we built a body of evidence and generated results within pilot school, these results would build acceptance by government (central and local) and influence their authority. Our learning during the pilot was critical to adaptation that followed towards a more appropriate approach. The direction of this work is starting show positive signs of success, is connecting more broadly to other gender initiatives, and shows promise that can be built upon going forward.

We partnered with Centre for Gender and Child Protection Studies (*Pusat Studi Gender dan Perlindungan Anak*, PSGPA) at the Muhammadiyah University of Sidoarjo (*Universitas Muhammadiyah Sidoarjo*, UMSIDA) as the training provider and supported them to develop training content in gender-responsive schooling approaches. We helped UMSIDA to train ten pilot schools, that then used what they had learned to develop action plans to make changes in their school policies, facilities and classroom environment to be more gender-responsive. The plan was that UMSIDA would play a key role in scaling the approach and influence local government in East Java to finance resourcing for training in additional schools. The training was positioned as: linking to the Ministry of Education's Indicators for Gender Responsive Schools (2014); aligning with National Education Standards; and aligning with The Ministry of Education guidelines (2020) where reference is made for schools to work with a gender equality perspective and treating students fairly and without discrimination.

Twelve months after the training, the pilot is showing positive results with several changes in school policies, facilities and classroom practices. Examples are:

- 9 schools (90%) have separated toilet for boys and girls, provide sanitary napkins, underwear and spare clothes.
- 8 schools (80%) of schools displayed posters or information on prevention of gender-based violence and other messages related to anti-bullying.
- 8 school (80%) have developed Gender-Responsive School activity and budget plan (RKAS).
- 7 schools (70%) supplied garbage bins with lids in school toilets
- 5 schools (50%) have a School Health Clinic with separated bed for boys and girls
- 5 schools (50%) have gender-responsive vision/mission/regulation.
- One of the pilot schools, SDN Tenggulunan, established a regulation in 2023 on gender-responsive school activity management that included principles of gender equality into learning. They also formed an Anti-Bullying Task Force.

Classroom observations in 20 classes in the pilot schools in mid-2023, one year after the training, showed that:

- In 19 classes (95%), teachers had organised gender sensitive classrooms (this included having boys and girls sit together, ensuring boys and girls had the opportunity to sit close to the front of the class and so on).
- 18 teachers (90%) of those trained had independently prepared and were using a Lesson Implementation Plan (RPP) with activities and approaches that reflected a gender-responsive way of teaching (remove gender bias from activities and classroom rosters and tasks).
- 7 classes (35%) were using reading books that referenced or described what gender bias was and/or showed balanced representation of genders free from bias.
- 15 classes (75%) of classes displayed a class agreement that had been formulated by the teacher together with students.
- 18 classes (90%) had displayed Class Rules and a Student Portfolio that encouraged respectful behaviour and values that reflected Character Education and 21 Century Skills.
- Male and female students were observed to equally take part in classroom duties such as cleaning the classroom (previously seen as a task for girls).

The pilot demonstrated that it was relatively easy for schools to prioritise and carry actions that led to changes to school policies, facilities and/or classroom learning to promote a safe and supportive learning environment for all students. The ability was therefore present, with no fiscal constraints. The acceptance and desire for change within schools was strong following their engagement in the training and actions they took were within the control of the school management and teachers (authority). Twenty case studies prepared by the ten schools on their practice, policy and facility changes were submitted to the Ministry of Education to be uploaded on the Ministry's online platform PMM for access by schools and education stakeholders across Indonesia. As results were emerging local government was increasingly interested in the approach and how to replicate the core components of the training for broader use.

Notwithstanding positive results at the school level, the pilot generated important learning about the feasibility for broader change for this work, as an INOVASI-driven approach. Teachers and principals noted the need to train more teachers in their school if they were to influence broader and sustained changes in their school. The UMSIDA team were lecturers with full-time teaching schedules. Their interest and availability to train additional schools (as initially planned) was minimal. They were primarily interested to integrate key aspects of the modules into their university curriculum, which they have done. Finally, despite emerging interest from local government to further utilise the approach, scaling the three-day training was too resource intensive for easy replication. This was particularly the case given there was no strong motivation (acceptance) from the local government to help finance and facilitate the scaling (ability).

We also found that attempting to link the training modules to Indonesia's eight education standards and the Ministry of Education's gender-responsive school indicators did not build sufficient demand from non-pilot schools or local government. It was clear that unless the content on gender-responsive schooling was packaged and integrated within government programs, there would be no authority from government to help institutionalise the approach. The more convincing hooks were Character Education, *Profil Pelajar Pancasila* (P3), P5, the development of 21st Century skills and incentivising school performance through the Education Report *(Rapor Pendidikan)*. For the Ministry of Religious Affairs, greater attention to address sexual violence and bullying in Islamic education institutions also provided an entry point for the positioning of the content given the training related to policies, campaigns *(Sekolah Ramah Anak)* and classroom practice on instilling respectful behaviour and building a safe learning environment. Adaptation was needed to try and shift the acceptance and access those with authority.

We had to pivot in our approach. We re-packaged the content to align with the narrative gaining momentum in both ministries on safe and supportive schools. Messages on gender-responsive schooling remained but were packaged within the umbrella objective of a safe and supportive learning environment for all. To reduce the resourcing burden, we refined the module format from a three-day facilitated training to a single school self-administered checklist and a school

toolkit that distilled the core components of the training into a Safe and Supportive School Toolkit. Schools could use these resources without training or prior knowledge.

We also adjusted who we worked with and how. We engaged District Education Offices in Sidoarjo, and with the Teachers Association (IGI) Sumenep and Principal Forum (KS3S) Sukadono in East Java. Through this district level engagement in under two months, we engaged with more than 20 schools to run workshops for schools to utilise a checklist to check how safe and supportive their learning environment is. In Sumenap we piloted the Safe and Supportive School Toolkit with the teacher's association and district government.

By the end of Phase II, this revised and more connected approach was starting to show greater potential for broader change beyond what was achieved in the pilot schools in 2021 and 2022. This was seen to be because of the growing importance of, and urgency to address, safety in schools coupled with the demand within schools for tools and guidance. The policy changes and political importance of this issue increased the demand and the degree of acceptance for the tools and approaches that relate to gender-responsive schooling by those who had the authority (local government and central government) to bring about broader changes. The ability of schools to implement the changes was clear from our UMSIDA supported piloting in the ten schools back in 2021.
Future programming can continue engagement with local governments and begin engagement with central government to expand uptake of the Safe and Supportive School Toolkit. The re-packaging of the gender-responsive school content to align with national and local education priority programs has positioned the toolkit's content as relevant while still sharing key messages and strategies on how to achieve gender equality in schools.

This work, primarily focused at the district and province levels, also directly supported our engagement at the central level with the Ministry of Religious Affairs on their implementation of Regulation No. 73/2022 on the Handling and Prevention of Sexual Violence in Education Institutions. This is detailed below.

Eliminating bullying and sexual violence to promote a safe and supportive school

As our work evolved in supporting schools with practical tools for creating a safe and supportive learning environment, we began to connect the dots and see the relevance of this to our emerging work supporting the Ministry of Religious Affairs on the prevention of sexual violence and bullying in Islamic education institutions. This convergence of our work came about late in Phase II, timed with the release of the Ministry of Religious Affairs' Regulation No. 73/2022 on the Handling and Prevention of Sexual Violence in Education Institutions in October 2022. This regulation and public attention to the issue created the political demand for action and INOVASI was well positioned to support.

Similar to our engagement with the Book Centre, relationships we had fostered with the Ministry of Religious Affairs through other INOVASI work meant we were present during the ministry's discussions on their development of a regulation to urgently respond to public attention on sexual violence and bullying in Islamic education institutions. INOVASI was invited by the Ministry of Religious Affairs to support the development of the regulation and our technical teams became involved in discussions on the preliminary draft. Here, the desire for change (acceptance) was strongly nudged along by public and media attention to the issue. The Ministry was responsible for (and required to) enact change (authority). They were seeking technical support to draft the guidelines to support their ability. In their draft, The Ministry of Religious Affairs mandated the authority for case handling and reporting to *pesantren* (Islamic schools). INOVASI's view was that case handling and reporting of sexual violence should be dealt with through the criminal courts. With this differing view, INOVASI decided to step away from the drafting process.

When the regulation was issued in October 2022, the ministry again requested INOVASI's assistance to develop technical guidance on prevention and case handling. Given the different views noted above on how cases should be handled, we focused our technical support to the guidance for prevention of bullying and sexual violence. We were also invited to provide examples of school practice and drew these from the ten pilot schools in East Java (see the above section) and shared their

results on how to promote a safe school through school policies and classroom practice. The Guidelines on Prevention and Handling of Bullying and Sexual Violence were then published in mid-2023. At the time of writing this chapter, these guidelines are in their early stages of implementation so it is too early to identify results and changes that we hope will follow at the school level.

Despite this, there is potential for broad reaching benefits from the issued guidance. Specifically, if through the regulation and its guidance, district funds flow to schools to develop and/or strengthen their policies, systems, programs and staff capacity using the guidance provided this should positively impact the learning environment for girls and boys in Islamic schools (*madrasah* and *pesantren*). This work also aligns with efforts made by the Ministry of Education's program content in *Kurikum Merdeka* on addressing the *Tiga Dosa Besar* (three big sins); namely intolerance, bullying and sexual violence. In prioritising this within the education system, the Minister of Education recognised the importance of a safe school for students to learn effectively. These actions and commitments from both ministries show the government's high-level recognition that child safety and protection in schools needs greater attention, and that addressing this issue has a positive impact on the learning environment.

This example of how we worked to address a key gender issue (sexual violence) was unique for INOVASI's gender work. The acceptance was not built over time through technical support, nor led by local champions. INOVASI tapped into a political urgency that had pushed the Ministry for Religious Affairs' need for action that prompted their 'acceptance'. The Ministry had the authority to bring about change and required technical support for their ability to take action. The regulation and its guidance represent important progress, expected to open the space for change and improvements at the school level in the future. However, there may be constraints to the degree of change going forward related to case handling. An initial and important focus for future programming will be to work with *pesantren* and district governments around prevention of bullying and sexual violence. This can include the use of INOVASI's toolkit prepared and support to roll out technical guidance and tools for schools under both ministries. Related to prevention, this links to our emerging work supporting schools to prevent child marriage which is explored below.

Integrating child marriage prevention messages into school literacy programs

At the same time as our approach to the safe and supportive learning environment was evolving in East Java, and our engagement at the central level with the Ministry of Religious Affairs was gaining momentum on anti-bullying and sexual violence prevention, we saw that other aspects of our gender work also contributed to promoting and guiding a safe and supportive learning environment.

In 2022, we published a Child Marriage study (Fajriyah et al., 2022) that aimed to better understand the gender impact of COVID-19 in education, with a particular emphasis on the phenomenon of child marriage. The study included data and analysis from three provinces (East Java, West Nusa Tenggara and East Nusa Tenggara). The issuance of Law 16/2019 raising the age of marriage for females from 16 to 19 years, created an enabling regulatory environment at central and local levels for the prevention of child marriage and for allowing married children to continue their education. At the time, child marriage prevention was not a priority issue for the Ministry of Education or Ministry of Religious Affairs. In carrying out this research early in Phase II, our assumption was that if we could provide data and evidence on the education impacts of child marriage and highlight a role for the education sector in child marriage prevention, there would be greater demand (acceptance) from the Ministry of Education and Ministry of Religious Affairs to act. This would help to then access their authority to mandate a stronger role for schools. We were taking a top-down approach.

The study highlighted that, although COVID-19 restrictions (on celebration and gatherings) delayed child marriage, there was no shift in perspectives in the community about child marriage. The study also showed that despite supportive regulations, children who marry do not return to their studies. They face challenges of stigma, impartial policies in schools and limited support from the school community. We positioned this issue within the broader policy framework of child marriage prevention but found that the demand from both ministries remained low. Sharing evidence did not help to increase central government demand because they were focusing on other pressing education priorities.

We recognised that we needed to adapt our approach if we wanted to influence the education sector to take a more active role in child marriage prevention. So, in early 2023, we did four things differently. First, we reversed our approach, shifting from a focus on central government to working with local government, schools and their stakeholders on local solutions. We chose NTB because this province has the highest rate of child marriage for Java-Bali-Nusa Tenggara areas at 15.48% in 2018 (BPS et al. 2020) and because of there was a provincial commitment to prevent child marriage (the acceptance and authority were there). Second, we shifted from using research as an entry point, to facilitating discussion with multi-stakeholders that started with problem-driven analysis about school absenteeism. The aim was to make the issue of child marriage relevant to broader education issues the provincial government was trying to address.

Third, learning from our experience on the gender-responsive school modules (that began with close engagement with a university partner UMSIDA then later involved local government) we initiated a partnership with both local government and non-government stakeholders from the outset to help shape the focus of activities. In particular, to combat cultural and religious drivers of child marriage, KORE Global's 2023 research notes the importance of working with religious leaders. We partnered with the Ministry of Religious Affairs district office and *Institut Agama Islam Hamzanwadi* (IAIH) NW, Pancor, an Islamic university in East Lombok. Fourth and finally, we designed our activities embedded within the existing local *Kurikulum Merdeka* literacy program to build on existing program priorities and ensure the relevance and integration of new activities we were introducing.

Under this partnership, the initial problem analysis led to the local government identifying child marriage as an issue affecting school completion rates and absenteeism. To address this, the partnership co-created a child marriage prevention program within *Kurikulum Merdeka* in six private madrasah in East Lombok. IAIH produced and delivered training packages on topics such as child protection, child-friendly madrasah and child marriage prevention, and integrated child marriage issues in the literacy curriculum. Within this partnership, the district government held the authority to encourage uptake of the program in schools. The activities were delivered within the *Kurikulum*

Merdeka literacy modules ensuring relevance and therefore acceptance of both local government and schools. Finally, IAIH was able to work with schools and strengthen their ability to deliver these programs in a locally contextualised way.

At the time of writing, this program is in its early stages, with two months into implementation. It is too early to identify results however in its early stages, this approach facilitated local government and stakeholders to collective identify child marriage as priority issue, building acceptance from the outset, and tapping into existing education priorities in the province. By working directly with the district office of religious affairs, we were working with those who had authority to implement the changes to the *Kurikulum Merdeka* and literacy curriculum. In partnering with IAIH we were providing support to build the capabilities (ability) of the schools to integrate messages and activities on the prevention of child marriage into their existing lesson plans and engagement with their students. By working with local partners, we were able to develop locally relevant solutions and messages on child marriage. Based on upcoming review of this activity, there is scope to use learning from INOVASI's early work to continue to develop and test integrated ways to include messaging on child marriage prevention, child protection into existing curriculum. This can include encouraging students to dream about their future linked to the importance of their own education to achieve this dream. Child marriage is defined by the United Nations as one form of gender-based violence and so these efforts on child marriage prevention can more broadly link to education on safe schools, prevention of bullying and sexual violence.

Influencing budget allocation for gender-responsive WASH in schools

To influence improvements in the learning environment, we also worked to influence district budget allocation (APBD) to increase spending for gender-responsive WASH facilities in West Sumba and Nagekeo Districts. In early 2021, INOVASI was invited by the Nagekeo and West Sumba Districts in NTT to participate in planning meetings for revisions to the district mid-term development plan (RPJMD) 2019-2023. This process took place during the COVID-19 pandemic when there was a renewed focus by the government on the implications for

supporting the availability of WASH facilities in schools. This provided an entry point for INOVASI to advocate – together with Wahana Visi, Yayasan Bahtera, Yayasan Plan and Stimulant Institute - for budget to support separate toilets for girls and boys to meet national standards.

As a result, the APBD for West Sumba District included an allocation in the Special Allocation Fund (DAK) of around IDR1.6 billion for construction of gender-separated toilets in eleven primary schools (SD). Construction was completed in 2022. The district also pledged to reallocate a budget of IDR 3.6 billion for an additional school toilet construction programme in 2023. Currently the budget process is underway, so this reallocated amount is not confirmed at the time of writing. In Nagekeo District, the planning process resulted in a pledge to allocate budget of IDR 703 million for toilets to be constructed in three schools (SD) in 2023. As the with 2023 budget in West Sumba, this is yet to be confirmed as committed. In this case, the authority was there as we engaged directly with government – as decision-makers - through the district budget planning process. Local government had the ability to allocate budget as there were no fiscal constraints. The focus of this advocacy was therefore on building acceptance that separate boys and girls toilets was important. Here referencing the infrastructure standards of schools that require gender-separated toilets successfully convinced local authorities. However, the work that followed at the school level was more complex.

Following successful budget advocacy, INOVASI, together with non-government organisation partners, initiated Gender-Responsive WASH Guidelines. The initial aim was twofold - to guide toilet construction to meet universal design principles and to help guide schools in maintaining WASH facilities to be inclusive for boys and girls. The evolution of this activity – including the guideline content - reflects how we adapted as we learned from schools about what they needed, what already was in place, and as we gained clarity on what was feasible to change within the timeframe we were working to. Initially the guidelines were created for district education offices (on toilet construction) and to schools on WASH management and maintenance). However, it became apparent that with time limitations and our sphere of influence it was not feasible to influence the procurement process for the construction of accessible toilets (including tender documents and design specifications). This required a different strategy and stakeholder engagement and was subsequently

dropped from the guidelines content. There was, however, demand from schools for specific guidance on how to manage and maintain their new WASH facilities. Some schools were having toilets constructed for the first time. At the time of writing this report, the guidelines have been finalised and approved by local government ready to be socialised for use in schools that have newly constructed toilets.

To date, the main success with this work has been the advocacy to secure budget for toilets that were then constructed. Here INOVASI tapped into the authority of local government to decide budget spending, was able to build support (acceptance) through referencing requirements for school facilities. No specific ability was required for government, as the change was about a greater allocation of budget. The level of difficulty to achieve this result was therefore relatively small. What was lacking in terms of ability however, was the ability of local government to then draft design specifications and carry out procurement of contractors to construct accessible toilets. Although this was outside the scope of INOVASI's focus and influence at the time, this surfaced as an area of need. It is worth exploring the potential for partnering with other development partners or non-government organizations for future programming, given the potential impact and benefits for inclusive schooling. Engaging with local organisations such as Save the Children and Stimulant in Sumba Barat could help to take this work forward on universal design standards at the toilet construction stage. There is opportunity to share learning between districts on influencing districts budgets for toilet construction. There are also significant opportunities in the future to support schools to utilise the newly developed WASH guidelines to ensure they maintain WASH facilities, beyond the initial two target districts, as available and well-maintained WASH facilities contribute to a safe and supportive learning environment for all students.

Providing positive roles models and increasing the representation of women in education leadership

As mentioned in the first section of this chapter, our survey results in Phase I found evidence that female principals had stronger leadership qualities in several aspects compared to their male counterparts. This directed us in Phase II to look further at the low proportion of female principals. As with the child marriage study, that was taking place at the

same time, we were aware this was not regarded by government as a pressing education problem. Our assumption was that if we built evidence on why women were underrepresented as school principals and the benefits of more women education leaders, this would stimulate dialogue encouraging the government to look at the issue (greater acceptance) and take action (accessing their authority).

We partnered with Cakra Wikara Indonesia (CWI) at the University of Indonesia to carry out further qualitative research in our four provinces. The research looked at teachers' perceptions of gendered social norms and their male or female principals' school management and leadership practices. The research confirmed our Phase I survey and found female principals to be perceived by their teachers as: significantly more capable compared to male counterparts in transparently managing finances; better at enforcing of rules and procedures in schools; conducting better routine evaluations of school conditions; and better at taking steps to improve evaluation results and ensuring better availability of school facilities (Ardiansa et al. 2022).

Initially we planned to carry out a central level policy dialogue on the findings and present them as a policy issue. This was similar to our initial idea with the child marriage research findings. However - as with the child marriage findings - we realised a more targeted and specific approach was needed. Advocating for improvements to the government's recruitment standards and processes of teachers and principals to increase opportunities for female principals was not realistic. Our timeframe was too short and this issue would require long-term changes. We could not identify champions committed to the issue (acceptance) with the authority to make the extent of changes likely needed (ability). We therefore had to adjust our strategy in relation to how we followed up, and who we followed up with. We needed to be more opportunistic and leverage what existed within our realm of influence.

At the time, INOVASI has strong working relations through providing technical support to the *Guru Penggerak* team in the Ministry of Education. In the same way we approached the Ministry's Book Centre to work on the revised book review instrument, we also leveraged relationship of other INOVASI teams to introduce gender-related issues into discussions. The Ministry of Education's *Guru Penggerak* Program

had just selected teachers and principals. INOVASI offered to present our research findings to the Acting Secretary Directorate of Teachers and Teaching Personnel who leads the *Guru Penggerak* Program for an initial informal discussion. This progressed engagement and the Acting Secretary of the Directorate presented the *Guru Penggerak* data during INOVASI's International Women's Day event. Data showed that although more women (56 percent) than men (44 percent) were selected as principal candidates for the *Guru Penggerak* Program, ten percent of men were appointed as principals compared to 6.5 percent of women. Although low, in comparison to national statistics, this proportion of females selected as principals is much higher than the national average. The progress that followed in our engagement with the *Guru Penggerak* program team was slower compared to our progress with the Ministry's Book Centre. This was likely because the Book Centre was working to a tight deadline to revise their book review instrument. The *Guru Penggerak* program team saw no urgency in our engagement. Over several informal discussions, working through our strong networks, the Acting Directorate Secretary suggested one way to move forward on this issue was to establish an association of female principals. The concept was an association that could both provide insight and feedback to the ministry, as well as support and mentoring to female principals.

At the time of writing, the design and concept of this association is still underway. INOVASI is developing a concept proposal. As the pilot phase of the *Guru Penggerak* program will finish soon, we intend to use this change space created and emerging champions within the ministry to broaden discussions to focus on an association for female principals beyond *Guru Penggerak*. This may, for example, link to the existing *Kepala Sekolah Indonesia* (Indonesia Heads of Schools) association, or it may be a separate and new entity. Although the progress to address this issue has been slow, it has been important. INOVASI identified a change space where we had access to the authority, had trust and relations to encourage acceptance of the problem and we did this within a defined scope of a specific program, in this case *Guru Penggerak*. The scope of the problem within one program was easier to digest and begin to address compared to launching into a focus on the nation's recruitment processes at large. Future programming can continue to build on the change space INOVASI has created through engagement with the *Guru Penggerak* team. Going forward, efforts can continue to

address and raise awareness about improvements needed to broader recruitment and support policies and process for female teachers and principals. Should an association be developed, this will be an important vehicle connecting the voice of female teachers and principals with government.

Insights

INOVASI has generated some important learning on what works well and why for us in programming gender equality within the education sector. Key takeaways are:

1. **Connecting with priority reforms and agendas.** Support to government to address gender equality issues needs to be framed within priority education reforms and programs to be relevant for central and local education actors, and to be integrated effectively into existing programs. This requires proactively identifying the 'hooks' where addressing gender equity to promote gender equality clearly helps the government to achieve its' broader education objectives.

2. **Flexibility and adaptation are key for success**. Although it is important to identify key areas of priority engagement and desired outcomes from the outset, flexibility is required given the constrained change space and the need to continuously assess and adapt to nudge change. INOVASI adapted several times to shift direction and change ways of working in order to navigate the space to build acceptance and access authority from those able to bring about change.

3. **Multiple entry points exist – they are often different for different issues**. Different gender-related issues INOVASI focused on were accessed via different entry points. Long-term relationships built on trust can create more openminded responses from partners to consider gender equality issues they may have overlooked previously. Changes in the political environment, including political pressure, can create space for change and opportunities to work with actors previously less open to the change. INOVASI's experience showed that we needed to adjust our strategies on how we

worked, and sometimes who we worked with, to respond to changes in context and new opportunities that arose.

4. **Acceptance and authority are the most important foundations.** When working towards achieving gender equality in education, it is important to secure acceptance, as a priority - even if this takes time – and to work effectively with those who have the authority to bring about desired change. These two aspects – acceptance and authority – are the core foundations from which strategies can continuously be built upon. The ability (either the technical capacity of actors involved or their fiscal capacity) will likely vary in locations, can be continuously improved upon.

5. **Practical guidance for schools on 'how' is critical.** It is important to build awareness and commitment to gender equality in schools. Beyond this, the most critical ingredient is guidance on the how. INVOASI received feedback from schools that they were aware of issues and 'concepts' such as 'gender equality' but lacked the practical tools and examples to guide them in the specific changes they needed to make. Sharing practice – including tools and approaches - between schools and with government helps to illustrate what can be done and how.

Taking the above into account, there is significant scope for leveraging results and change space created through INOVASI's work in future programming. The following can be considered:

1. **Book review instrument**. Future programming to continue to work with book developers and reviewers while simultaneously working in a more strategic way with parents and school communities on gender norms and removing gender bias. This can also include working with other programs that focus more on social and gender norms and community behaviour change.

2. **Eliminating bullying and sexual violence**. An initial and important focus for future programming will be to work with *pesantren*, state schools and district governments on the

prevention of bullying and sexual violence. This approach can include the use of INOVASI's Safe and Supportive School Toolkit to complement the Ministry of Religious Affair's guidelines with a more practical and school-level tool. The toolkit was launched with the Sumenep district government in East Java in September 2023, and is being used by their teacher association. Opportunities to include this toolkit in the PMM are still being explored.

3. **Child marriage prevention**. There is scope to use learning from INOVASI's early work to continue to develop and test integrated ways to include messaging on child marriage prevention, child protection into existing curriculum. This can include encouraging students to dream about their future linked to the importance of their own education to achieve this dream. In addition, KORE Global's 2023 research on child marriage, stresses the importance of sexual reproductive health and rights (SRHR) curricula as part of combatting child marriage. Design and delivery of SRHR curricula in partnership with expert organisations could be further explored in future programming. Child marriage is defined by the United Nations as one form of gender-based violence and so these efforts on child marriage prevention can more broadly link to education on safe schools, prevention of bullying and sexual violence. Content from the INOVASI toolkit can be used to support this work.

4. **WASH in schools**. Future programming can continue to support schools to utilise the newly developed Gender-Responsive and Inclusive WASH Guidelines to ensure they maintain WASH facilities, beyond the initial two target districts. Available and well-maintained WASH facilities contribute to a safe and supportive learning environment for all students. These guidelines were finalised mid-2023 and distributed in Sumba Barat. There is scope for future programming to pursue broader use of these guidelines, including to encourage their inclusion in the Ministry's online platform (PMM) for schools to access.

5. **Women in education leadership.** Future efforts can continue to address and raise awareness about improvements needed to broader recruitment and support policies and process for female teachers and principals. Should an association be developed, this will be an important vehicle connecting the voice of female teachers and principals with government.

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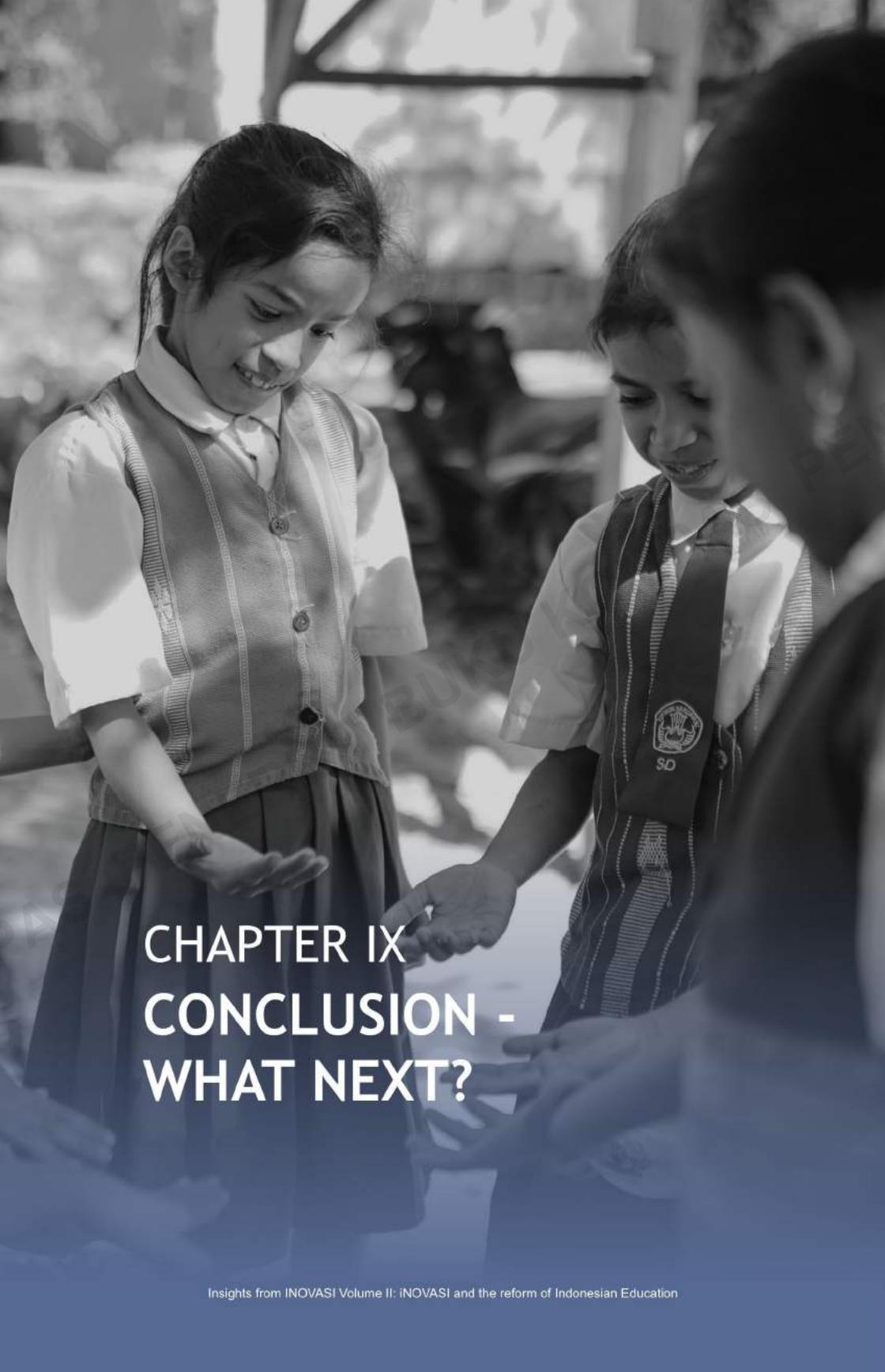
CHAPTER IX
CONCLUSION - WHAT NEXT?

CHAPTER IX: CONCLUSIONS - WHAT NEXT ?

Mary Fearnley-Sander & Mark Heyward

Introduction

This volume analysed how INOVASI contributed to Indonesia's current education reforms, both those comprising the *Merdeka Belajar* agenda; and the reforms in the program's partner districts to improve inclusive teaching and learning and their support systems. It set out to explore how the program's application of its development approaches of PDIA and TWP helped the program contribute to the extent of change that occurred during its eight years of operation. The aim of the volume has been to share the learning on how the approaches came to have the effects they did, so that the momentum of these reforms can be sustained.

This concluding chapter is organised around a resume of the themes addressed in the chapters on the policy areas that the program worked in: what INOVASI achieved, how it was done, whether enough has been done and what are the main lessons from the endeavour, including for continuing capability needs. The second section provides an indicative summary of the extent of the contribution where INOVASI's own contribution has been clear. The third section profiles how this contribution was achieved. Drawing on both volume 1 and volume 2 of the Insights from INOVASI series, the final section looks at whether the reforms have been developed and implemented to a point where they

can be maintained and scaled; and at the capabilities that need continuing and strengthening for sustainability and scale. This final section offers some insights from the program experience for government and development partners on how to strengthen and sustain the reforms.

The extent of contribution

Chapter 1 makes a large claim for the contribution that INOVASI has made. This is that the program has been able to help bring about change in the approaches to policy of government and non-government partners on teaching and learning, thereby affecting the quality of implementation; and further, that the change has been consequential for improving teaching and learning and their support systems.

In prefacing this discussion of INOVASI's contribution, it is important to acknowledge that the program did not act alone. Nor did it start with a blank slate. The tendency to overstate influence and impact is natural for development partners – both donors and their implementing partners. This is what makes the so-called 'grey' literature of project reports and studies grey – meaning less credible than independent reviews and peer-reviewed academic studies. This volume is not an evaluation of INOVASI. In the various chapters, we have claimed contribution where it is reasonable to do so. We have also acknowledged where it has been hard to get traction, where the program hasn't had significant impact. The purpose is not to claim impact. There are other channels for that. The purpose is to tease out the ways of working that evolved over eight years, and that did contribute to the achievement of program outcomes, to the reform of Indonesia's basic education system, and to better learning outcomes for Indonesian children. In short, to answer the question, what worked and why?

INOVASI did not act alone

The program worked closely with partners in government at all levels, in teacher training institutes, and in civil society and the non-government sector. As suggested in Chapter 6, many of the program's colleagues and partners in government and non-government sectors had similar levels of expertise, and similar or complementary academic

and professional backgrounds to the specialists and advisors within the INOVASI team. Over time, INOVASI became part of a larger team – all working together to achieve shared goals. In the discussion of 'embedded helping' in Chapter 3, we describe this in relation to how TASS and INOVASI worked with national government. The same is true for how the program worked with senior officials in local government, with universities, and with key non-government organizations. In Chapters 3 and 5 we discussed how relationships at subnational level – both formal and informal – were critical. At the same time, INOVASI was able to bring expertise to the table, to meet specific emergent needs; Indonesian, Australian, and international expertise. The program was also able to leverage connections with peak bodies in Australia, including ACER, ACARA and AITSL. The real value-add, however, has been described in this volume and in this final chapter. It is the way of working that enabled INOVASI to contribute to Indonesia's reforms in the way it did, in a way that government acting alone could not have done. The collegiality and mutual respect that both enabled and flowed from that close partnership was earned over eight years, through the activities described in this volume.

INOVASI did not start with a blank slate

Donors, implementing agencies, and occasionally researchers, sometimes like to pretend that nothing came before the baseline data were collected. There is also a tendency to pretend that there were no other actors, projects, donors in the field; as if they were conducting a controlled experiment in a sterile laboratory. It makes for a neat story to tell the government back home, to claim all the credit for impacts. In reality, INOVASI built on the work of previous and concurrent programs, including DFAT-funded programs, but also UNICEF, the USAID-funded DBE and PRIORITAS programs mentioned in Chapters 1 and 3, and others. Key members of the INOVASI team had worked with these programs under previous contracts, where they accumulated understanding, expertise, and professional networks. Some of the streams of work in TASS and INOVASI actually began in previous projects. The lessons learned in those projects, and in some cases their products and materials, were put to use in INOVASI's work. Increasingly, Indonesia is building its own substantial pool of expertise, independent of donor-funded programs, but often supported by engagement with those programs, and often by Australian post-

graduate degree courses, funded both by Australia and Indonesia. This expertise may be found in government, civil society, universities and also in programs like INOVASI.

What was the contribution?

From the foregoing chapters, three kinds of contribution stand out as making a substantial difference to policy, and to partners' capability for the processes and practices of policy development that will significantly benefit teaching and learning. The first of these is the kind of contribution made by intervention that generates a cascade of change in the area of interest. The second is the case where partners take a model - or an approach that INOVASI developed or advocated - directly into policy or practice, because of its effectiveness. The third kind of contribution is improvement to policy implementation that will help make it effective at scale.

Twelve instances stand out across the chapters as unambiguous examples of INOVASI's central role in one or other of these three effects. (The chapters narrate many other examples where INOVASI's role is also implicated). These examples, and the three types of change they contributed to, are displayed in the table below. They also exemplify approaches that are typical of most of INOVASI's activities across its the policy areas.

Table 11 INOVASI's contribution to substantial change

INOVASI's contribution to substantial change		
Generative changes	**Adoption of promising models or approaches**	**Scaling for quality implementation**
1. *Guru Baik:* Teacher mindset shifts leading to individualised recognition of learners' problems & differentiated teaching 2. Supply of children's reading	5. The functional approach to identifying disability, and aligning of regulatory and EMIS frameworks for provision for children with a disability 6. Reform of the pace of learning in the mathematics	11. Uploading of field-tested teaching and learning resources for implementation of *Kurikulum Merdeka,* grounded in teachers' capability needs 12. Local ecosystem development: engagement of local CSO, OPD, gender

books: The logic of a foundational skills approach in literacy for supplying of engaging levelled readers 3. Teacher training institute volunteer movement in NTB: the catalytic effect on pre-service curriculum for literacy and numeracy 4. Gender-sensitive schools: the expansionary effect of aligning with government's agenda for elimination of violence in schools	component of *Kurikulum Merdeka* 7. Impact of INOVASI research on student outcomes through use of simplified curriculum on national advocacy for *Kurikulum Merdeka* and take-up in INOVASI partner districts, facilitating targeted literacy and numeracy teaching 8. Ministry of Education's 2021 Mother Tongue policy brief 'Using mother tongue to improve basic literacy in the early grades': Explicit acknowledgement of INOVASI's successful pilots in language transition. 9. Books to remote districts: influenced by INOVASI's evidencing of need and trialling of provision in North Kalimantan 10. National-district policy collaboration	advocacy groups, teacher training institutes, and NGO under district leadership to deliver inclusively improved literacy and numeracy.

In the next section we take a case from each of the three kinds of contribution to pull together the messages from the previous chapters on how INOVASI's development approaches worked to help the program achieve its contributions.

The 'how' of contribution

The analysis in Chapter 3 interprets PDIA as an approach for capability development. The capability it aims to develop is the capability of governments developing and owning solutions to problems that fit the context, and so are viable and sustainable. Not doing this results in

mimicry of policy development; and in the view of the authors of the PDIA text, explains the inability of reforming interventions to sustain, which has been a feature of so much development history. The chapter also shows how the program's TWP approach at the national level worked in tandem with the essentially subnational focus of PDIA strategy, to support the Ministry of Education and the Ministry of Religious Affairs take account of evidence of what work in classrooms and districts for best-fit policy development.

As proposed in Chapter 3, the issue in capability development is largely one of policy implementation: first, the capability of the policy makers to develop policy that is implementable; and second, the capability to implement the policy down the authorisation chain. This is not 'one-size-fits-all compliance', but 'doing the right thing', in Pritchett's words (Andrews, Pritchett and Woolcock, 2017). This way of putting it recognises the need for autonomous capability to be involved in implementation, if it is to be appropriate to a given context. The conceptual framework for developing capability, illustrated in Figure 4 in Chapter 3, expresses the program's approach to the development problem of the policy-implementation gap. The graphic of the bridge joining the national and the subnational shows the two-way traffic of consultation in effective policymaking. Beneath the bridge are the PDIA and TWP strategies that INOVASI used to buttress this link. Heading them is the Triple A of Authorisation, Acceptance and Ability. Along with this framing strategy, mindset shift, making the problem matter through compelling evidence, trusted advisors providing technical advice, partnership building — all specified in the conceptual framework—are exemplified in all the twelve cases above.

The following discussion selects three cases from the twelve to identify the particular strategies at play, and to elaborate on how they worked to produce the three kinds of effect on change categorised in the table.

Generative changes: Book supply case

Over the life span of INOVASI, the Ministry's policy on eligible books and their supply in schools underwent a 180-degree change. Chapter 5 narrates each step of this escalating change.

The book supply case exemplifies in a salient way the strategies that are common to all generative change. It also exemplifies some adaptations

of the program's development theory that INOVASI learned from its experiences.

As with all INOVASI support for improvement, the steps began with local problem identification—low literacy rates in North Kalimantan - drastically so, in remote areas of the province. In this case, the problem analysis uncovered issues that mapped the whole policy terrain. The whole 'design space' was opened up for resolving this problem. This approach exemplifies the feature of the development 'orthodoxy': that PDIA and TWP designs belong to: initially undefined pathways, but always with "relentless pursuit of the goal".

In this case, the goal was improved literacy outcomes. That goal raises an important point in INOVASI's experience, namely, the relevance of the technical context to appropriate strategy selection. Perhaps a contribution that INOVASI has made to applying PDIA in a particular sector or field—in education, in disability inclusion, for example— is to recognise the legitimacy of the program team bringing prior technical knowledge of the field to influence how the problem is investigated. Investigating the causes of low literacy includes knowing the role that age-appropriate children's literature — or lack of it —plays in the progressive acquisition of fluency and comprehension skills.

INOVASI advanced this aspect of the solution by the TWP strategy of 'going with the grain': working within conducive areas of government's own policy commitments, a strategy that is prominent in several other policy areas narrated in the volume: disability inclusion and of particular interest, in Chapter 8, on gender equality.

The conducive policy in question in the book supply case was the emergence of development priority of the Jokowi government for implanting the reading habit in the Indonesian community, and schools in particular. Minister Baswedan's policy in pursuit of this goal of 15 minutes reading of non-text books before school, drew attention to the problem that there was little suitable to read in the school or community environment. Close team relationships with reformist district leaders in Bulungan district resulted in early championship of allocation of district and school funds for books; and interest in the quality of the literature that they could procure. Through mobilising local championship, and compelling research findings on the almost total absence of accessible and attractive books for early grades in the

government's eligibility lists for schools, the North Kalimantan team helped made this problem matter at the national level; and changes to the criteria and processes for book eligibility for school procurement began to follow. Facilitation of technical support to the Ministry was crucial for developing the specifications for levelled readers in line with literacy progressions and high-interest content.

One innovative activity that INOVASI had commenced very early in its life was partnering with local literacy CSOs demonstrating the effect of quality reading books in schools and classroom use. These partnerships came into their own in the assistance INOVASI made available to the Ministry of Education's Book Centre for the extensive changes to the book eligibility processes. As seen in Chapter 5, the revolutionising Ministerial Regulation No. 22/2022 on book suitability for targeted readers was the result. In respect of another aspect of the design space for this problem —access of rural and particularly remote children to reading matter— the concern of this reforming Ministry's for disparity outcomes led of its own accord to the supply of 15.3 million books to 14,500 primary schools in disadvantaged areas. Nevertheless, it is likely that the research on the book 'desert' in such areas, advocacy and demonstration of e-based supply by INOVASI, contributed to this issue suddenly acquiring high prominence.

In summary, we chose this case for discussion here because of the extent of effect on book eligibility policy for schools– going from barrier to enabler to students acquiring reading fluency. INOVASI's contribution is clear at every necessary step. But the case also illustrates the power of several strategies recurring throughout INOVASI's engagement with policy improvement, making it important to assemble them here, namely: initiating interventions through local, participatory problem-based approaches; presenting compelling evidence; galvanising local champions and partners; demonstrating 'the look' of the sought-after change; and providing high-quality technical assistance when ministries are entering new policy territory.

The adoption of a model or approach: the student learning profile (PBS) case study

Several of INOVASI's contributions have been through the adoption into policy by government and non-government bodies of a proposal or

an approach that INOVASI has developed or advised on. In terms of the institutional scale of change involved, the adoption by both the Ministry of Education and the Ministry of Religious Affairs of a new approach to identifying children with a disability for participation in schooling — the functionality-based Student Learning Profile (*Profil Belajar Siswa – PBS*) is the most dramatic example of this kind of program influence.

Set out in detail in Chapter 7 is the substantial concern of INOVASI from Phase I onward for the capability of teachers, regulators and data systems to identify students who have disabilities, so as to be able to address their unique requirements. This has involved developing a fit-for-purpose mode of identification, based on the everyday functional abilities of children in the classroom. Previously, the Ministry of Education used a medical approach which was problematic, in relation to inconsistent interpretation and capturing students' needs. The reforming government's Regulation No. 13/2020 on Reasonable Accommodation, mandates comprehensive and detailed provisions for implementing inclusive education, and holds schools and higher education institutions accountable. This makes imperative the ability for schools and governments to accurately determine whether a student has disability and what reasonable accommodations should be provided.

As narrated in Chapter 7, this development was through a long journey: "years of trialling, improving, multi-layered and inclusive communication and collaboration, and extensive parallel work in regulatory reform". Amongst the institutions required to be modified to align with the PBS were teacher competency standards, and education information systems of both Ministries. In the case of Ministry of Education's *Dapodik* system, this required authorisation at a high level to develop a specific application to collect the PBS data. In October 2023, the Student Learning Profile application was fully integrated with the *Dapodik* and Ministry of Religious Affairs EMIS data collection systems, enabling informed decisions for planning, budgeting, monitoring, and evaluation purposes, particularly in relation to reasonable accommodation for students with disabilities.

Like the book supply case above, this instance of contribution had its origins at the sub-national level: in the level of the Governor of NTB's interest in inclusion reform and the commitment of Central Lombok

district in its Roadmap for Inclusion. It also shares with the book story, the crucial involvement of relevant stakeholder groups — in this case, organisations of People with a Disability (OPDs) — whose voice, in part through INOVASI's facilitation, became influential with government, particularly through the formulation of the Reasonable Accommodation regulation 13/2020. Perhaps the most determining factors in the achievement of the result was the program's dependence on two of the Triple As. The government's long-standing policy commitment to disability inclusion meant ready authorisation of an identification system. This authorisation was especially important where proprietorial data bases were concerned. Equally important was the A for Ability. In contrast to the book story, these progressive changes were produced, not by a known destination, but by iterative attempts at finding a way to get the solution to work systemically: more like the 1804 trip, than the 2015 trip from St. Louis to the West Coast, described in Chapter 3. This was important for building capabilities for iterating on developments until they work. Time to build Acceptance— by teachers and schools and local offices was beyond the time frame of the initiative. Nevertheless, as shown by teachers' increasing mastery of differentiated teaching –central to disability inclusion— there is a tight nexus between ability and acceptance which is promising for the take-up of the PBS in schools.

Again, in this case the essential role of INOVASI supporting the passage through to change is clear. To the collection of development strategies that worked, we can add INOVASI's commitment to the principle of collaborative, stakeholder-driven iteration of effort, and the example of successful policy it produced.

Scaling for quality implementation: Local ecosystem development

The third kind of change is an appropriate one with which to close this section. INOVASI, and the Ministry of Education in its *Merdeka Belajar* reforms, share a parallel vision, that of learning being supported and scaled-out by local ecosystems. The ecosystem model that comes out of INOVASI is best portrayed by its development in West Nusa Tenggara. A key feature of the story is the genesis of this ecosystem model in localised teacher professional development, developed through INOVASI pilots. Chapter 4 describes the important

lessons that INOVASI learnt early about the processes of deep teacher change; and their fit with what educators internationally identify as effective professional development practice discussed in Chapter 2. This is the acceptance that comes from local, problem-based exploration of difficulties in collaboration with peers. That confident ownership of learning was facilitated in teacher working groups (KKG), and in the collaborative problem-driven improvement, application, and reflection that came from their meetings. From the beginning, the team in NTB engaged with the district education office to use selected supervisors as facilitators of teacher professional development, and partnered with a local university faculty in curriculum development — for example, for disability inclusion in literacy and numeracy curricula; and engaged with local Islamic organisations with the same aim of supporting improved literacy.

The pandemic extended this local ownership of learning in the district community. Chapter 4 describes the flowering of small teacher training institute partnerships into an NTB-wide Association of 19 members; and the mobilisation of hundreds of student teacher volunteers to support learning in children's homes. Most significantly, INOVASI helped broker the leadership of education authorities for these community initiatives, which have evolved into partnerships between the district education office and teacher training institutes in the delivery of teacher professional development.

The ecosystem that resulted illustrates a fundamental premise of the PDIA approach. This is the value of local contextualisation in problem identification and development of solutions. In addition to the value of best-fit, local solutions, part of that value is that local ownership is a condition of acceptance at scale— the third of the Triple As. Acceptance brings its own dynamic of change; it expands the design space. Chapter 3 described teachers' own innovations on differentiated learning once they had understood the component skills of beginning literacy. The story of locally led improvement in Chapter 4 culminates in the model of literacy used to support learning being used by teacher training institutes to reform their own pre-service curriculum; and the local education authority confidently partnering with the faculty for ongoing improvement to the teaching of literacy and numeracy.

The NTB ecosystem (and it was not the only one in the partner provinces) helped make visible what the Ministry was aiming for in its ecosystem model for scaling the reforms: it was seen as part of the proof of concept that can help disseminate the *Merdeka Belajar* model. This work with school supervisors, ultimately informed a new regulation to support implementation of *Kurikulum Merdeka* that explicitly shifts the supervisor's role from 'controlling' to 'facilitating', and from input-based performance indictors (ensuring schools achieve the eight standards) to learning outcomes-based indicators for literacy, numeracy, and character in the Education Report.

Further, it leads to the kind of change to the processes and practices of policy development that help close the policy and implementation gap, as was recognised in this statement from the Director-General of Primary and Secondary Education indicates:

> INOVASI's approach to local government assistance is asymmetrical and consultative. The emphasis is on a learning approach. Let them decide their path, even if it is not the most ideal way. Don't dictate. As a result, each local government in NTB has different interventions. Not all the same. Later in the process, the local government will learn, and make corrections as a form of continuous improvement. The result is strong district ownership of the program. And increased confidence of ecosystems that they can support change, because of their own strength. (INOVASI, 2022a:ix}

This case helps us to conclude these two sections with two high-level take-aways from INOVASI's eight-year experience very conducive to bridging the policy-implementation gap in

Have the reforms been sufficient? What's next?

In this final section, we briefly answer the question as to whether the reforms have been sufficient, and what is still required. For each of the key themes, we suggest what could usefully be done next, based on the previous analysis.

The improvement of education policy, education delivery and education outcomes is a never-ending process. It is a process of continuous improvement. In this sense, the implementation of Indonesia's *Merdeka Belajar* reforms is still very much a work in progress – and it will never be finished. Similarly, the role and contribution of a program like INOVASI is never enough, the job is never fully done. This is recognized in Indonesia's new approach to curriculum development, which sees curriculum as continually evolving. Through a cycle of reflection, evaluation and learning, it is intended that the national curriculum will be iteratively and continuously revised, adapted, updated, and improved over time.

In the final chapter of Volume 1 of this series, we concluded that more work is required to implement Indonesia's ambitious reform agenda. The essential requirements for success are there, but the government and broader community need to allow time for implementation, while continuing to monitor and evaluate that implementation and continually adjusting the curriculum, assessment and teacher development policies, to avoid the risk of 'big bang' policy changes putting the comprehensive reform package at risk. To ensure success, attention needs to be given to working within and across the ministries, and with districts, to build understanding and ownership of the reforms, strengthening efforts to upskill teachers and education administrators to implement the reforms, and building acceptance of the reforms, through coordination, training, and media campaigns. These conclusions are echoed here.

INOVASI's end-of-program outcomes are inextricably linked to the Indonesian government's objectives with its *Merdeka Belajar* reform agenda. As described in Chapter 6 of this volume, curriculum reform, as comprehensive as currently being undertaken in Indonesia, is a multi-year process, needing at least ten years. INOVASI was designed and implemented as an eight-year program. But implementation of the *Merdeka Belajar* reforms has only just begun.

Allowing time for a program like INOVASI to bear fruit is good sense. A grade 1 child who benefited from the first Guru BAIK or *Gema Literasi* pilots in NTB in 2017, is now, at the time of writing, in the final year of primary school; a grade 3 child from then might now be 15 years old, in

junior-secondary, and sitting the next round of PISA tests. While, as described in the introduction to this chapter, INOVASI did not start with a blank slate, it took eight years for the program to fully develop its approach to adaptive programming, to 'doing development differently', to PDIA and TWP. It took time to build new trusted relationships and partnerships, and to deepen existing ones, to enable this adaptive approach. It took time to explore the problems at local level, to pilot and iterate the solutions, to leverage the results of successful pilots. It took time for proof of concept.

So, the question is not whether the reforms, and INOVASI's contribution to them, are sufficient to ensure improved learning outcomes for all Indonesian children. The question is whether the government's policy development and implementation so far are sufficient to ensure momentum and continued reform, and whether INOVASI's contribution has been sufficient to support that.

Teacher professional development

Implementation of Indonesia's reforms requires a massive upskilling of teachers - the Ability component of the Triple A. Without this, change will be tokenistic at best - 'isomorphic mimicry' in PDIA terms. As suggested in Chapters 2 and 4, teacher professional development cannot be effectively designed and delivered in a national top-down cascade model. History has shown that this approach fails in Indonesia, due to the sheer scale of the challenge with three million teachers; a typically poor fit between centrally designed training materials and the diverse needs of teachers, schools and districts; poorly trained facilitators; one-off training events without follow-up mentoring, and lack of monitoring and evaluation. Meanwhile, the cluster-based 'in-on-in' model adopted by government for continuing professional development, and promoted by donor-funded programs like programs like CLCC and PRIORITAS (and INOVASI and TASS in Phase I), while effective at the local level, is too slow and costly to scale. The emerging solution, adopted by the government and supported by INOVASI in Phase II, is a hybrid approach, which utilizes the power and access of online platforms (accelerated since COVID-19 and the advent of Zoom and similar apps), to provide access to training and support materials through the PMM and PINTAR, while at the same time supporting the

establishment of face-to-face learning communities at local level. Given the very recent advent of the technology to enable this type of approach, time is needed to develop and test it.

We know, as described in Chapter 2, that a system which relies on individual self-directed learning is unlikely to gain traction or achieve the scale of teacher professional development required for implementation of the reforms. Teachers learn best in groups of peers. This is particularly true in a collectivist culture like Indonesia. Teachers also need authorization and acceptance, two of the Triple As, and, for this, the national government needs to engage with districts. This is one of INOVASI's most potent lessons, described well in Chapter 3 and above.

Early attempts by the Ministry to introduce change through the *penggerak* suite of programs, did not gain traction as they bypassed district authority, they were not owned by the districts. INOVASI was able to demonstrate how gaining district ownership and authorization for change, and working with the district ecosystem to implement it, are essential in Indonesia's large and decentralized system. While Chapter 2 in the first volume of this series discussed the political economy of decentralization, highlighting the challenges national government faces in implementing its policies in districts, INOVASI was able to demonstrate how it can be done, through facilitation, 'making the problem matter' to local leaders, empowering districts and giving them a voice in national policy formation, allowing for local contextualization in policy implementation, and working with the districts rather than directing them in a top-down way. This is evident in all of the chapters in this volume.

The extent to which the provincial training centres (BGP) and the local education quality assurance centres (BPMP) work effectively with the districts, ensuring their ownership and authorisation to implement national policy, will largely determine the success or failure of the reforms. As illustrated in the quotation from the Director-General of Primary and Secondary Education above, the Ministry of Education aims to adopt, or at least learn from, the INOVASI model with its province-level agencies. However, the skills and understandings needed for this are not yet in place. To this extent, the job is not yet done

– and a follow-on DFAT-funded program, INOVASI-III, would do well to work closely with these agencies and make this a prime focus.

INOVASI, in its partner districts, developed a cadre of 1,750 well-trained local facilitators that came to be known as *fasda* (short for *fasilitator daerah*)[50]. The Ministry of Education has developed a cadre of 92,000 *guru penggerak*, in four batches across the country, also well-trained facilitators (although the *guru penggerak* training in mindsets is probably stronger than that for *fasda*, while the training in teaching of literacy and numeracy could be further strengthened). The challenge for *fasda* and *guru penggerak* going forward is that many don't have a formal status, beyond that of teacher or school principal. This makes it hard for them to perform and sustain a role as change agents beyond their own school. To address this, many of the INOVASI-trained *fasda* are now being recruited as *guru penggerak*, some have become principals or supervisors. Those who have not yet been picked up could be fast-tracked into the *guru penggerak* program, assuming they meet the requirements of that program. *Guru penggerak* are being channelled into leadership positions as principals and supervisors, and are encouraged to take a lead in 'learning communities' at local level. More recently, INOVASI has begun working closely with school supervisors as facilitators. While some supervisors lack the motivation or capability to perform the role, others are well-equipped, and well-positioned within the system, to do so. As described in Chapter 4, learning from INOVASI, the Ministry of Education has begun to look to the school supervisors, who work out of the district education office, and has made changes to regulations to strengthen their role as facilitators of performance improvement and change agents, focused on school and teacher needs based on the Education Report. This is a long-overdue and significant shift from their former role as compliance-focused inspectors.

Strengthening and scaling out the *guru penggerak* program, making the *guru penggerak* training a prerequisite for promotion to principal or supervisor, and shifting the role of supervisors through regulation, are all very positive moves – but will require time to be fully implemented and impact on teacher capability and, ultimately, on learning outcomes. DFAT's next program could well support this

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[50] 1,012 women and 738 men.

process, through close ties to the BGP and BPMP, through continuing support to develop the PMM and PINTAR - to continually improve content and structure of the platforms, and through its strong experience and networks working with district administrations, the district ecosystem, and schools to improve teaching practice and learning outcomes.

INOVASI also demonstrated that working closely with teacher training institutes along with non-government and civil society organizations, including the big Islamic organizations, Muhammadiyah and Nadhlatul Ulama (NU) can directly improve and expand provision of teacher professional development within districts – as well as improving pre-service teacher training, ensuring that future graduates are classroom ready, especially regarding the inclusive teaching of literacy, numeracy and character. The Ministry of Education has initiated collaborations with universities and the teacher training sector, to strengthen both pre- and in-service teacher professional development. INOVASI supported this, including through facilitating links to Australian institutions. This is, however, a new frontier and would benefit from ongoing support and facilitation.

Book procurement

As described in Chapter 5, the Government of Indonesia has made substantial gains in reforming policy and practice relating to children's reading. Quality reading books are now recognized as essential to learning to read. Books have been provided to schools in remote areas. However, there is much still to do to improve access to, utilisation of, and quality of books for all Indonesian children. This requires further support for publishing, book procurement, and training for teachers and others, including writers and illustrators. The Ministry of Education's Book Centre has taken ownership of this agenda, but would welcome and benefit from ongoing technical support. Specifically continuing changes to the maximum price setting (HET) and establishment of an online open marketplace for children's books, as proposed by the Minister, could help.

Curriculum and assessment

Kurikulum Merdeka is more than just a 'new curriculum'. In the context of Indonesia's *Merdeka Belajar* reforms, it aims to transform the learning system, to change the way teaching and learning take place so that all children can succeed, based on their individual potential. This means differentiated learning, 'teaching at the right level'. The new curriculum is supported by a new national assessment system, *Asesmen Nasional* (AN), and the Education Report, (*Rapor Pendidikan*, for schools and districts. The big challenge now is to implement the changes faithfully and effectively across all schools in Indonesia.

Is the reform process sufficiently advanced to ensure sustainability, scale-out and ongoing implementation across the country? The answer is not yet. As discussed, change takes time. The new curriculum and assessment system are not yet fully implemented. While around 60% of schools opted into the trial in 2023, it is likely that many of these and their teachers are not yet clear what the curriculum involves, have not yet learned how to conduct diagnostic assessments or 'teach at the right level', and are still basically implementing the 2013 curriculum. Many may have not yet received new textbooks or student workbooks. In many schools the curriculum is being introduced progressively, with just two classes 'doing' *Kurikulum Merdeka* in the 2023-24 school year.

The government's intention is for all schools and madrasah to be signed up and adopting the new curriculum in 2024, ahead of the installation of a new president and ministers for education and religious affairs. But districts, schools and teachers will need substantial and ongoing support to properly implement it, and the risk is that a new administration may see the reforms as a failure and reverse them before enough time has been allowed – or perhaps they might put a hold on implementation while conducting a review. Another risk is that the curriculum is adopted, but the change is not real – 'isomorphic mimicry' in PDIA terms, meaning changing the appearance but not the substance. Or that poor communication and lack of training result in teachers being confused and rejecting the changes. These are real risks, given the uncertain political climate, the need to allow time for teacher upskilling, and the fact that it will be many years before the impact of the reforms is likely to be evident in improved learning outcomes in higher grades – and in improved PISA scores.

Chapter 6 concluded with suggestions for actions that government could undertake to help ensure faithful take-up of the new curriculum and pedagogical approaches. As described above, it will be important to address the Ability component of the Triple A. Resources and training for teachers will be critical, particularly focused on diagnostic assessment, differentiated learning, methodological approaches for teaching reading, use of concrete aids for basic maths, approaches to inclusion and character education. All of these can be provided through the emerging channels of online platforms (PMM and PINTAR) and local learning communities, supported by the ecosystem: BGP, BPMP, BDK, supervisors, *guru penggerak* and local facilitators, teacher training institutes and non-government organizations.

At the national level, it will be important to maintain momentum, building and maintaining authorization and acceptance through media and advocacy campaigns, to closely monitor and evaluate implementation, and continue to refine and improve the new assessment and curriculum frameworks and materials. DFAT's new program will be well placed to provide technical support for all of the above.

Disability inclusion

The situation for children with a disability is much improved. The student learning profile (PBS) developed with INOVASI assistance, has been adopted by the Ministry for Education for use as an app, and is linked to *Dapodik*, which gives districts, provinces and the national government a picture of the extent and nature of disability across schools. This, in turn, should enable rational resourcing to implement new policies on reasonable accommodation for children with a disability (also developed with INOVASI assistance). Guidebooks have also been produced for teachers on how to include children with various disabilities into mainstream classrooms. All of this is a huge step forward.

Full implementation of this system, however, requires socialization and extensive training for all teachers and education administrators. This will require commitment, planning and resources, but is the next step in a lengthy process to enable inclusion of children with a disability as learners alongside able children. Linking the *Dapodik* data to BOS

funding could, potentially, support a differentiated per-capita school funding system to provide schools with the resources needed to implement the policy on reasonable accommodation, and fully integrate children with a disability. (Measures to minimize the risk of false reports would be important, as linking PBS reports to funding could incentivize schools and districts to inflate the number of children with a disability.)

These steps will help improve the capability (Ability) of the system for disability inclusion. Authorization is in place at national level but requires confirming at district level. Acceptance at the level of communities, schools and teachers needs to be built through campaigns and awareness-raising training.

Gender equality

While it took time for INOVASI to gain traction with efforts to create space for change with gender equality, substantial gains were achieved in Phase II of the program. The Ministry of Education's book review instrument now means that all books approved for use in Indonesian schools (text and non-textbooks) will be screened for gender and disability sensitivity. Both the Ministry of Education and Religious Affairs have adopted policies and are developing programs to eliminate bullying and sexual violence in schools. The issue of child marriage and its impact on children's education is gaining attention, along with the issue of water, sanitation and hygiene (WASH) in schools, and its impact on girls. Finally, the need to provide more opportunities for women in leadership is now recognized in the ministries.

All of this represents a big step forward to improving opportunities and outcomes for both girls and boys. But further work is needed on all these issues to build the acceptance, authorization and ability to make change happen – not just tokenistic change, but real change in the attitudes and behaviours embedded in the culture and systems of Indonesia's basic education system. Such change could unleash massive potential, taking full advantage of Indonesia's 'demographic dividend' (Chapter 2, Vol 1) and supporting the achievement of the country's ambitious goals for its 'golden generation' (generasi emas) in 2045, a significant year in Indonesia as the 100th anniversary of independence (Coordinating Ministry for Human Development and Culture 2022).

District readiness

Throughout this volume, the crucial role of the districts, and the district ecosystem, has been highlighted. Without successful engagement with districts, without their ownership of the national reforms, the authority, ability and acceptance required for change will not be in place. Between April and September, 2023, INOVASI worked with partner districts to jointly assess their readiness to adopt the Merdeka Belajar reforms, including Kurikulum Merdeka, and to sustain and scale-out literacy and numeracy programs successfully piloted with INOVASI (2023). The readiness mapping used the Triple A construct in a qualitative rubric-based methodology.

The readiness levels of the 14 districts were found to be relatively consistent across the three domains: 57% of districts were mapped as being established or advanced for the acceptance indicators, 54% for ability and 51% for the authorisation domains.

An established level of readiness in the **acceptance** domain (understanding need for literacy and numeracy changes, understanding the need for Kurikulum Merdeka, commitment and support of leaders, existence of champions) is, in large part, due to high-level awareness of local problems faced, commitment from district leaders or key actors, and availability of champions. Understanding of the importance for change was reflected in districts scaling-out reforms and optimizing the role of community groups. Assistance from teacher training institutions, civil society organizations and development partners was significant in building this understanding. However, political interventions and staff movement affect the sustainability of commitment. As a result, the existence of champions appears to be stronger among implementers than district leaders. In line with that, a lower level of acceptance was found in districts where the new leadership has limited understanding of initiatives undertaken by their predecessors, and commitment is visible only at the individual level from ongoing staff.

Districts with the highest levels of **authority** (strategic policies, budgeting, systemised monitoring, coordination and inclusive policies) already have strategic policies in place, supported by sufficient budgets (including for inclusion). Two districts have also developed a monitoring system to provide input for policy, program planning and

implementation. In districts with a lower level of authority readiness, there are already strategic policies but their implementation still requires encouragement from outside parties, for example through coordination with teacher training institutes.

Strong **ability** levels (quality of human resources, self-efficacy, adaptability to local needs and teacher development) are demonstrated in districts with qualified personnel - from policymakers to implementers - with technical knowledge and skills in developing literacy and numeracy. This human resource was developed through training carried out with development partners, teacher training institues, and civil society organizations.

The mapping showed that all districts will benefit from further support to enable them to independently implement, scale and sustain the literacy and numeracy learning initiatives. This support may be provided by agencies such as BGP and BPMP. The support for each district needs to be carefully targeted and adapted for local needs. However, overall, less support may be needed for strategic policymaking and more for systematic monitoring and evaluation, developing champions, and increasing undertanding of the need for the new curriculum.

A final word

INOVASI was designed as an 'adaptive' program, as described in Chapter 3. PDIA was adopted as the primary reference for realizing that adaptivity in program planning and implementation. Thinking and Working Politically, the primary approach of TASS, became part of the INOVASI repertoire in Phase II. Recognizing the dynamic, complex, and 'messy' development context – the reality of a social and government system, like education, in a large, diverse country like Indonesia – INOVASI's approach was one of 'muddling through', learning by doing.

Perhaps the most powerful of the strategies that emerged during the eight-years of INOVASI's implementation, is the Triple A framework. Taken directly from the Building State Capability manual for PDIA, the simple concept of intersecting domains of acceptance, authority and ability creating space for change resonated with the team, took root, and entered the lexicon, if not the DNA, of INOVASI. As the program

progressed, the Triple A framework came to influence the team's thinking, planning and reflection in every area – as illustrated in the chapters throughout this volume.

INOVASI also demonstrated that development assistance can be highly effective when it works within the system - and adapts to the evolving context. The program pivoted, first to respond to the COVID-19 pandemic, and secondly to support the Ministries of Education and Religious Affairs to refine and implement their ambitious Merdeka Belajar reform agenda. The positioning of INOVASI as a critical friend of government at national and subnational levels, and the ability of the program to support a top-down/bottom-up approach, as described in Chapter 3 and illustrated in Figure 4 in that chapter, was critical to the contribution it was able to make to improving learning outcomes for Indonesian children.

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The second volume describes what works to improve children's learning, analyses the development approaches which contribute to policy development and concludes that development assistance can be highly effective when it works within the system and adapts to the evolving context.

INOVASI contributed to policy improvement, take-up, and implementation, both nationally and in its partner districts, West Nusa Tenggara, North Kalimantan, NTT, and East Java. In 2016, Phase I began with a subnational emphasis; to find out what works in schools and districts to improve learning outcomes for all students. INOVASI adopted flexible development approaches, and brought stakeholders together to identify problems, pilot local solutions, and scale-out out tested strategies.

INOVASI Phase II commenced in mid 2020, in the grip of the COVID-19 pandemic. The national government requested INOVASI's support with alternative schooling options and to address learning loss. INOVASI subsequently supported partner districts to maintain learning during the pandemic; supported teachers with the essential skills focus of the new Emergency Curriculum and, when schools reopened, to identify what learning was missing and strategise how to close the gaps.

INOVASI supported the government to launch a comprehensive reform agenda for basic education, engaging closely with policy makers, providing constant feedback and exposure of national teams to effective facilitation of change at district level, and providing comprehensive support for teachers through the production of accessible resources.

Throughout the program, INOVASI has proven a critical friend of government, at national and subnational levels, and ensured the program's long-term sustainability by collaborating with more than 1,000 partners by the end of Phase II. The program has accelerated sustainable.