Transforming Education in Indonesia: Examining the landscape of current reforms

Education in Indonesia a decade on

In 2015, the OECD undertook its first comprehensive review of Indonesia's education system (OECD/ADB, 2015[1]). The report delivered a clear message. At a time when Indonesia was experiencing remarkable economic and social progress, the report showed how education could be a linchpin for greater prosperity. Yet, the country was facing a significant challenge. While access to education had expanded significantly, levels of learning remained low.

Now, nearly ten years on, how has Indonesia responded to this challenge? This paper explores the policies launched under the current *Merdeka Belajar*, or "Emancipated Learning" reform. These policies aim to improve outcomes by transforming the paradigm of Indonesian education. *Merdeka Belajar* shifts the focus to foundational learning and places strong emphasis on empowering teachers and building their capacity to change instructional practices. It also has a strong focus on making school a joyful experience. This paper examines the potential of these policies to raise learning standards. It also looks at what can be learnt from international experience and research about the factors that will shape the reform's success.

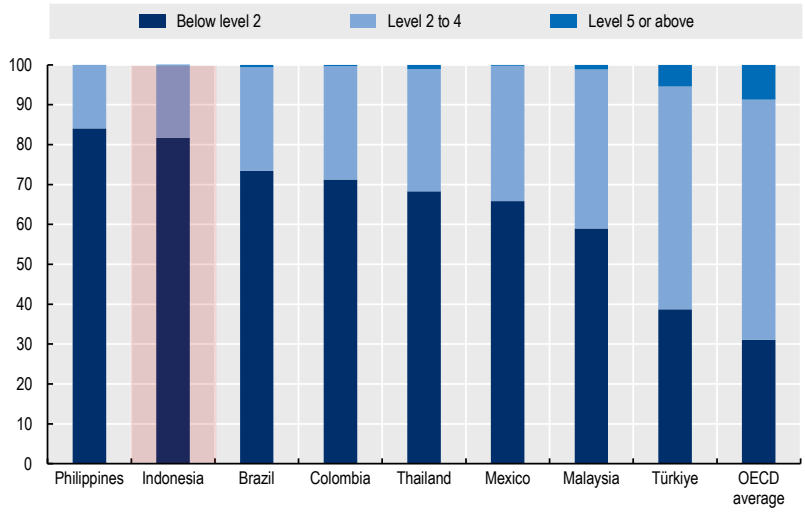
Where does Indonesia stand in improving student outcomes? Interpreting the PISA 2022 results

The OECD Programme for International Student Assessment (PISA) assesses the range of competencies that are important for life beyond school. This includes foundational knowledge and skills – reading, numeracy and scientific literacy – but also student well-being and attitudes to school (OECD, 2023[2]).

PISA data show that in 2022, more than three in four 15-year-olds in Indonesia did not meet minimum proficiency levels (Level 2) in mathematics and reading (Figure 2). However, PISA 2022 data also reveal some encouraging signs, especially in relation to students' experiences at school.

Figure 1. More than 3 out of 4 students in Indonesia underperform in mathematics

Percentage of students by proficiency level

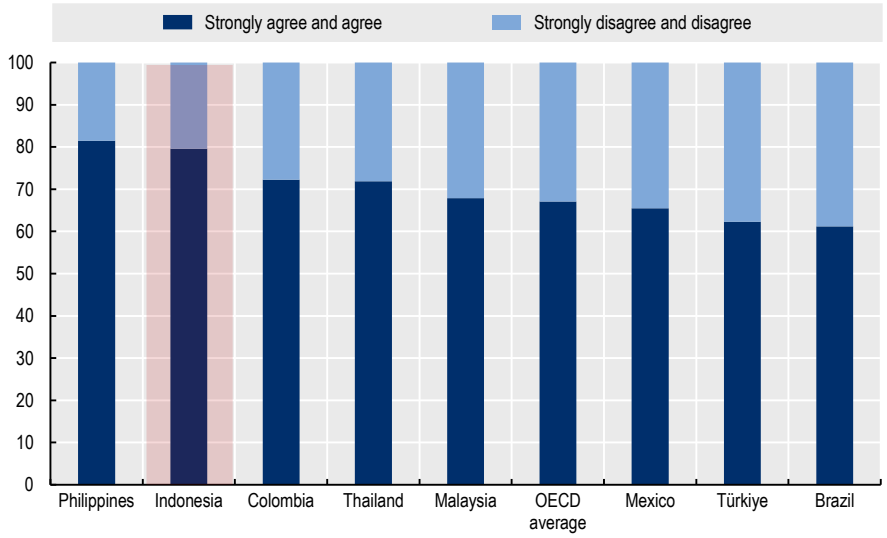


Source: OECD (2023), PISA Database, https://www.oecd.org/pisa/data/2022database (accessed on 27 November 2023)

It is impossible to interpret the PISA 2022 results without reference to the effect of the COVID-19 pandemic. The 2022 results across all countries are among the lowest ever measured by PISA in mathematics, science and reading. This reflects both the effect of school closures and longer-term declines in results over time (OECD, 2023[2]).

In Indonesia, schools were closed for two months more than the OECD average during the pandemic. Yet Indonesia appears to have done better than many countries in containing the decline in results in the face of these disruptions (OECD, 2023[3]). While performance across all domains decreased from 2018 to 2022, following a period of relatively consistent performance up to 2018, this decline was less pronounced than the average across OECD countries (OECD, 2023[2]). Moreover, students in Indonesia reported one of the highest levels of support from their teachers during the pandemic (Figure 2). More than 70% of students in Indonesia reported they were motivated to learn during the COVID-19 pandemic (compared to an OECD average of 38.5%) (OECD, 2023[3]).

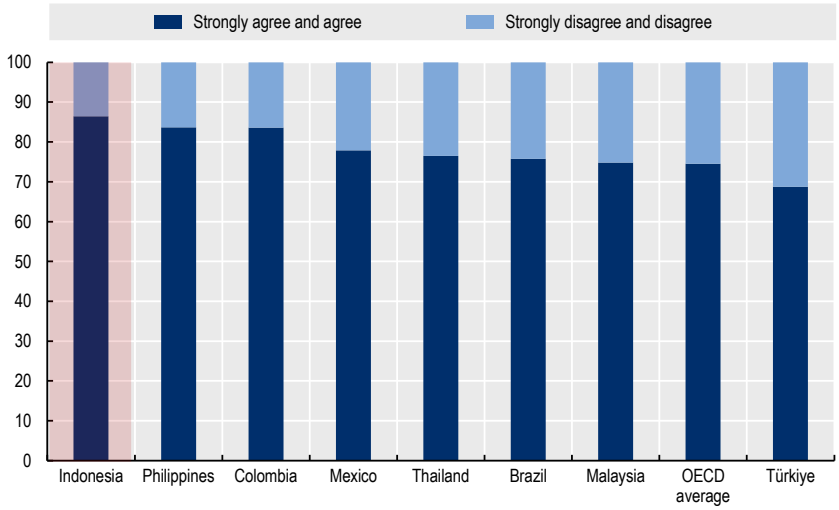
Figure 2 Almost 80 per cent of students in Indonesia reported their teachers were available for help when the school was closed because of COVID-19



Source: OECD (2023), PISA Database, https://www.oecd.org/pisa/data/2022database (accessed on 27 November 2023)

Indonesia also did better than the OECD average in safeguarding students' psychological well-being and belonging at school. In PISA 2022, 86% of students in Indonesia felt they belonged at school (the OECD average is 75%). A similar percentage (87%) reported making friends easily at school (OECD average: 76%) (Figure 3) (OECD, 2023[3]).

Figure 3. Indonesian students report high levels of sense of belonging at school



OECD (2023), PISA Database, https://www.oecd.org/pisa/data/2022database (accessed on 27 November 2023)

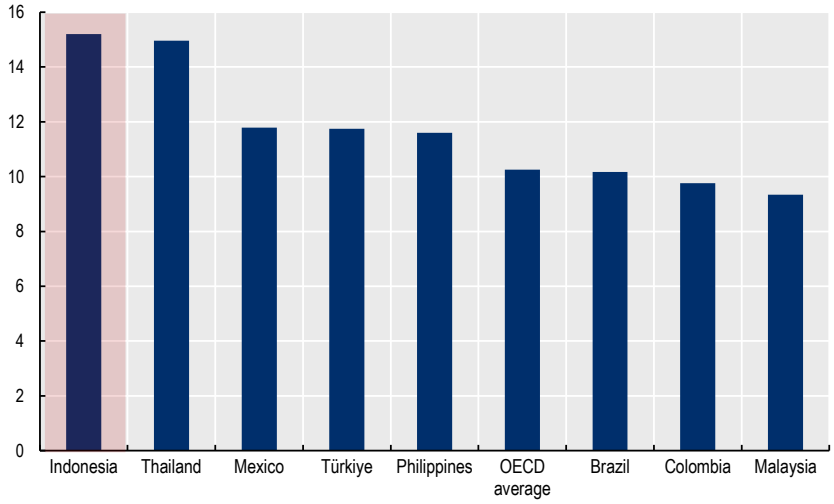
Whilst most countries saw a decline in parental engagement between 2018 and 2022, Indonesia maintained its levels of parental involvement during this period. In PISA 2022, 43% of Indonesian principals reported that at least half of families discussed their child's progress with teachers (OECD, 2023[3]).

Many significant challenges remain for the Indonesian school system, particularly around inequalities in learning outcomes (World Bank, 2023[4]; World Bank, 2020[5]). However, also here PISA 2022 data show some positive signals, especially with respect to participation. Between 2012 and 2022, the percentage of 15-year-olds attending school in Indonesia rose from 68% to 85%. While this is a marker of progress, it also brings more disadvantaged students into the system, which can affect average performance. Once the expansion of secondary education is accounted for, the overall performance in Indonesia from 2012 to 2022 declined only in reading. It improved in science and remained steady in mathematics (OECD, 2023[2]).

Indonesia is also home to one of the highest shares of "resilient" students among PISA participating countries. In other words, a large proportion of disadvantaged students in Indonesia defy expectations and achieve high performance (Figure 4) (OECD, 2023[2]). The challenge ahead lies in transforming the entire school system so that more students achieve such high standards.

Figure 4. Disadvantaged students in Indonesia show a considerable level of academic resilience

Percentage of disadvantaged students who scored in the top quarter of reading performance in their own country



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Transforming education in Indonesia: Merdeka Belajar and a new paradigm of learning

Introduced progressively since 2019, the *Merdeka Belajar* initiative is a wide-ranging educational reform that aims to improve learning outcomes in Indonesia (MoCERT, 2021[6]; Syahril, 2023[7]). It touches all parts of the education system from early childhood to tertiary education, covering both secular and religious schools.[1] *Merdeka Belajar* has a strong focus on equal education opportunity. It provides increased funding for rural schools, expanded access to quality learning materials for young children, and a tutoring programme that engages higher education students to help underperforming children – all approaches that research suggests can improve outcomes (Kraft and Falken, 2021[8]; OECD, 2017[9]; OECD, 2018[10]).

[1] There are two types of schools in Indonesia. Secular schools under the Ministry of Education, Culture, Research, and Technology (MoECRT) enrol about 85% of primary and secondary students. Religious schools (madrasah) under the Ministry of Religious Affairs (MoRA) enrol the remaining 15% of students (World Bank, 2020[5]).

At the heart of *Merdeka Belajar*, though, is an even deeper ambition: to fundamentally transform the nature of teaching and learning. This is important in Indonesia, where traditional whole-class teaching predominates and teachers sometimes struggle to foster the more complex, higher-order skills that today's students need if they are to thrive (Newman and Gentile, 2020[11]). The essence of the reform lies in fostering foundational skills, such as literacy and numeracy, and granting more autonomy and flexibility to schools and teachers. It also aims to cultivate a joyful school environment, to empower students with agency, and engage the entire school community, in line with the country's traditional social concept of mutual collective responsibility (*Gotong Royong*) (Aditomo, 2022[12]).

The reform is built on two main sets of policies: an overhaul of the curriculum and assessment and enhancing instructional capacity – both long-recognised as key areas where change is needed (OECD/ADB, 2015[1]; World Bank, 2020[5]). Indonesia has also developed digital platforms to support teachers, schools and subnational governments in working with the new curriculum and assessment.

Revamping the curriculum and assessment

No country seeking to improve learning outcomes and establish learning environments conducive to student well-being can bypass the question of curriculum and assessment design. Curriculum and assessment provide the framework that guides teaching and learning in the classroom. The curriculum communicates the knowledge, skills and values that teachers and students are working towards. Assessments gauge where students stand in their learning and inform further learning. Such information is crucial to know whether students are meeting expected standards and to understand what and how students learn, enabling better decisions in both policy and practice (OECD, 2013[13]; OECD, 2021[14]).

Recent years have seen a shift in many countries towards so-called "21st century" learning approaches. These approaches underscore the need to prepare students for a rapidly evolving and interconnected world. They place greater focus on cross-curricular content and competencies, such as digital literacy, communication, collaboration and problem-solving (OECD, 2020[15]). Assessment methods have also evolved from being primarily focused on evaluating what students know to include a more formative approach that offers feedback to students and teachers on how they can progress (OECD, 2013[13]; OECD, 2019[16]).

However, these changes are far from straightforward. As countries adapt their curricula, they need to avoid overloading the curriculum which can result in superficial learning and create unnecessary stress for students and teachers (OECD, 2020[17]). For curriculum reforms to be effectively integrated into classrooms, teachers and institutional leaders need to be involved in designing the reforms and supported in implementing changes (Gouëdard et al., 2020[18]; Randall et al., 2022[19]). Indonesia's curriculum reform takes steps to address these challenges.

Foundational skills, new pedagogies and increased autonomy: Kurikulum Merdeka's redefinition of curriculum

The new *Kurikulum Merdeka* or "Emancipation Curriculum," has three main aims:

- streamlined content, with a focus on foundational competencies
- greater emphasis on pedagogies such as project-based learning
- more flexibility for teachers and schools (Randall et al., 2022[19]).

The new curriculum builds on lessons learnt from its 2013 predecessor. The 2013 curriculum, though competency-based and thematic across grade levels, was criticised for its hasty implementation and its lack of clarity and focus on areas such as literacy and numeracy. Many students struggled to keep up, often resorting to rote learning. A key catalyst for the new approach was the success of an optional

simplified emergency curriculum used during the COVID-19 pandemic, which was seen to have led to better learning outcomes than the full 2013 curriculum (Randall et al., 2022[19]; Aditomo, 2022[12]).

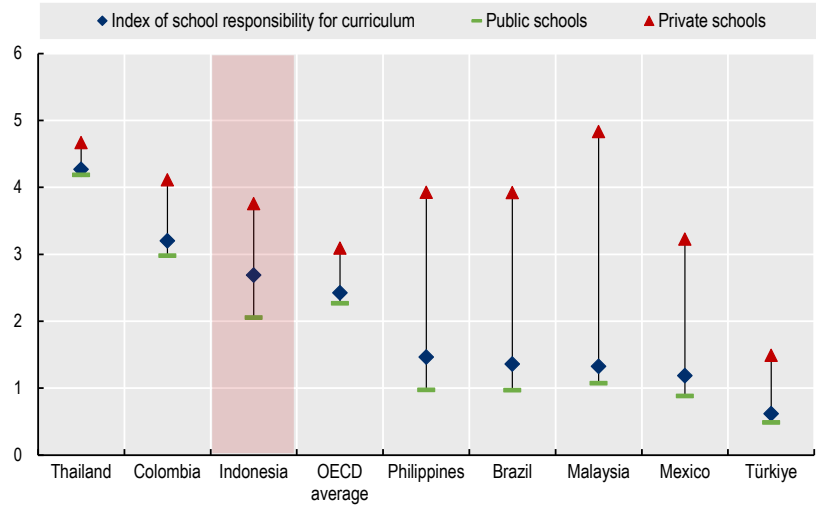
The main features of Indonesia's curriculum reform align with global trends in curriculum policy. First, Indonesia's *Kurikulum Merdeka* sharpens the focus on foundational competencies. This is a strategy that recognises the importance of literacy and numeracy for all students, alongside nurturing their social and emotional and 21st century skills (OECD, 2020[15]). The Ministry of Education, Culture, Research, and Technology has also cut curriculum content by 30-40%, aiming for a deeper understanding rather than a wider range of more superficial knowledge.

Second, the new Indonesian curriculum introduces pedagogical approaches such as project-based learning through the *Projek Penguatan Profil Pelajar Pancasila* ("Pancasila Student Profile Strengthening Project"). Project-based learning engages students in collaborative projects that respond to complex real-world problems. It is often seen as a way to encourage students to take more responsibility for their learning and develop socio-emotional skills. The focus on project-based learning reflects *Merdeka Belajar's* emphasis on students as active participants in their learning and the school experience as a joyful one (Randall et al., 2022[19]). Other countries have also piloted new pedagogies as part of broader curriculum change. For example, Korea has introduced a semester without examinations and more attention to methods such as project-based and flipped learning (OECD, 2020[15]).

Finally, Indonesia's curriculum reform further loosens national curriculum requirements. Schools in Indonesia already report relatively high levels of autonomy with respect to the curriculum (Figure 5) (OECD, 2023[3]). However, the current education reforms aim to make this freedom more meaningful. The education ministry sets out national education goals and standards, but schools can adapt this curriculum to their context with involvement of the community. Teachers have the flexibility to focus their teaching on where students are in their learning in relation to the national learning standards, instead of being required to follow a set sequence of topics and prescriptive lesson plans over the semester.

Other countries have undertaken similar steps and their experiences suggest this can be beneficial when the right conditions are in place. In Poland, for example, the curriculum provides the minimum scope of teaching content that teachers are expected to adapt to their students' levels of learning (OECD, 2020[17]). Giving schools more autonomy is, however, always a careful balancing act to avoid widening existing inequalities. All students should be able to meet high standards, even in less equipped schools (OECD, 2013[13]). This implies a strong role for the central government in developing teacher and school capacity to interpret national guidelines and apply standards consistently.

Figure 5. Teachers and principals in Indonesia report similar levels of curriculum autonomy as their peers across the OECD



Note: The index of school responsibility for curriculum measures the extent to which members of the school staff (principal, teachers or the school governing board) assume governance responsibilities in their schools. It combines the four tasks related to the curriculum and assessment examined by PISA and is calculated as a ratio between the responsibilities granted to the school staff and the responsibilities retained by education authorities.
OECD (2023), PISA Database, https://www.oecd.org/pisa/data/2022database (accessed on 27 November 2023)

Putting teachers at the centre of curriculum implementation

Indonesia has prioritised grassroots adoption and a strong focus on teacher development. The introduction of the curriculum has been a voluntary choice for schools since early 2022. This approach has seen rapid uptake, with 66% of schools opting into the curriculum in at least one grade level within the first three months. This figure has since climbed to 88%. The education ministry plans to make the new curriculum compulsory for all schools by 2024.

Recognising the gap between adopting a curriculum and effectively implementing it, the *Merdeka Belajar* policy emphasises teacher empowerment – as discussed below. The experience of many OECD countries suggests that a gradual, bottom-up implementation process can be beneficial as it respects the pace of each school's readiness (Burns and Köster, 2016[20]). Ensuring teacher ownership and support is vital. Without this, teachers may become overwhelmed, leading to a diluted or uneven version of the curriculum in practice or its non-implementation (Gouëdard et al., 2020[18]). The experience of Portugal illustrates the importance of stakeholder engagement and openness to feedback for successful curriculum reform (Box 1).

Box 1. Lessons on curriculum reform from Portugal

In 2017, Portugal launched a project to enhance the depth of students' learning through greater autonomy and flexibility in curriculum development ("Project for Autonomy and Curriculum Flexibility"). As part of the programme, schools are encouraged to use 0-25% of their total curriculum time to introduce innovative curriculum design; to create inclusive learning environments to integrate the diverse personal needs of all students; and to improve alignment between primary and secondary education. The pilot phase, starting in the 2017-18 school year, involved over 200 volunteer schools, and focused on identifying and promoting innovative practices in curriculum design and teaching.

Key to the programme's success were a clear strategic vision, stakeholder engagement and openness to feedback:

- The country began the process by envisioning the outcomes the education system should seek for its learners, based on evidence about 21st century conditions. It expressed these outcomes in a coherent strategic plan, described in detail in a student profile.
- The country achieved widespread agreement on its reform plans through careful consultation, debate and communications that have been well-handled and successful.
- The country appears to be open to feedback and to learning from the lessons derived from the evidence that has emerged about the successes and weaknesses of the project.

However, the pilot also faced challenges, including the following:

- concerns over diverse assessment practices
- potential misconceptions about curriculum flexibility lowering learning standards
- limited collaboration time for teachers
- tensions with Portugal's traditionally centralised education system.

In 2018, the ministry solidified the project, establishing new principles for curriculum autonomy and flexibility, and setting up regional teams to support and monitor the implementation at local and national levels.

Source: (OECD, 2018[21])

Reimagining assessment: Merdeka Balajar's move towards more formative and holistic approaches

Indonesia has complemented its curriculum reforms with an overhaul of its national assessment system. As with the change in the curriculum, the COVID-19 pandemic was a catalyst for this reform. Central examinations could not be conducted during the pandemic due to social distancing restrictions and the country was prompted to re-consider previous assessment practices (Aditomo, 2022[12]).

The previous National Exam was high-stakes and focused largely on knowledge memorisation. There was concern that the exam encouraged "teaching to the test", created stress for students, and led to a restrictive curriculum scope (Randall et al., 2022[19]). The new National Assessment replaces the National Exam and concentrates on three key changes. First, it marks a shift from summative to formative assessment, so moving from assessment *of* learning towards more focus on assessment *for* learning. Second, it prioritises fundamental competencies over specialised subject knowledge. Finally, it gathers a broader spectrum of data to support safer, more inclusive learning environments and student well-being.

The new assessment includes the following components:

- a Minimum Competency Assessment (AKM) for evaluating numeracy and literacy, incorporating questions that require higher-order thinking skills
- a character survey to gauge students' social-emotional learning and instil the Pancasila ideology, the official philosophy of Indonesia
- a learning environment survey that assesses factors contributing to the quality of learning in schools.

To facilitate the use of assessment data, the education ministry has introduced digital tools such as the "*Rapor Pendidikan*" or "Education Scorecard." This platform enables the dissemination of assessment results at different levels of aggregation. Schools and teachers are encouraged to refine their teaching methods on the basis of the results, while subnational authorities can tailor their resource allocation strategies more effectively. At the ministry level, the results help identify schools in need of additional support (Randall et al., 2022[19]; Syahril, 2023[7]).

These changes are in line with previous OECD recommendations. The 2015 OECD review emphasised the need for a broader assessment framework to support the country's educational goals and enable effective monitoring of student progress and enhanced teaching and learning practices (OECD, 2021[22]; OECD/ADB, 2015[1]). It also highlighted the need to use a range of assessment formats to capture the types of learning that are valued.

Like Indonesia, many OECD countries have incorporated formative practices and open-ended tasks as one part of their assessment frameworks (see Box 2 for an example). Examining international trends, the OECD has underscored the importance of a balanced approach to student assessment that integrates both formative and summative elements to enhance learning (OECD, 2013[13]; OECD, 2020[15]).

Box 2. Assessing broader outcomes in diagnostic assessments: The example of Victoria, Australia

The curriculum of the state of Victoria in Australia includes a focus on both knowledge and skills. It covers learning areas based on disciplines such as maths and science plus broader capabilities including creative and critical thinking, intercultural and personal and social understanding. A set of validated formal assessment tasks are provided to support teachers to assess student learning in critical and creative thinking. They cover all levels and are aligned to the Victorian Curriculum. In addition, the Victorian Curriculum and Assessment Authority (VCAA) undertakes 75-minute digital assessments in Critical and Creative Thinking (CCT) with a sample of schools across Victoria. These assessments are psychometrically validated and take place in Year 6 and 10. The student data are used to track the education state targets over a ten-year period.

Source: (OECD, 2023[23])

Supporting assessment literacy across the system

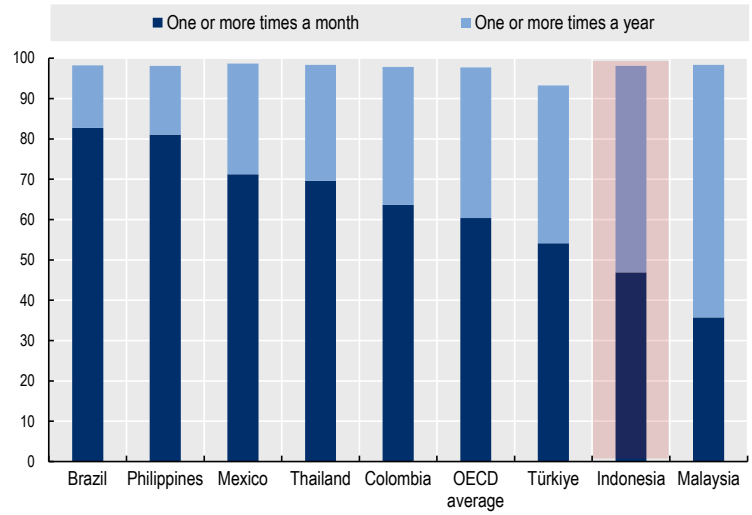
Harnessing the benefits of Indonesia's revised assessment system requires a clear strategic vision that supports cohesion in what different actors within the system are trying to achieve (Viennet and Pont, 2017[24]; Burns and Köster, 2016[20]). This involves two essential aspects: 1) ensuring that everyone in the system understands the goals of the new assessments and 2) effectively using their results.

International experience suggests that a commitment to incorporating formative assessments must be coupled with a strategic approach to professional learning in assessment (see Box 3 for a promising country practice). This includes supporting teachers' capacity to develop their own assessments, a practice which appears less common in Indonesia compared to the OECD average and most benchmarking

countries (Figure 6) (OECD, 2023[3]). Indonesia's initiatives to empower teachers and provide professional learning could offer a solid foundation for developing assessment literacy, especially with adequate support from the central level.

Figure 6. Teacher-developed tests happen with a lower frequency in Indonesia compared to benchmark countries and the OECD average

Results based on principals' reports



OECD (2023), PISA Database, https://www.oecd.org/pisa/data/2022database (accessed on 27 November 2023)

Box 3. Supporting teacher assessment literacy

New Zealand

Supporting teacher assessment literacy is an integral part of New Zealand's national assessment system. Specifically, this includes ensuring that teachers:

- have the sufficient knowledge about sound assessment practices, including the different types of assessments and its terminologies
- know how to develop and use different assessment methodologies and tools; are familiar with standards of quality in assessment
- know how to use assessment information to improve teaching and learning
- understand how aggregated achievement data (e.g. at the school, national or international level) relate to their classroom practices.

To achieve these objectives, the New Zealand Ministry of Education has established Assessment Resource Banks (ARBs), as one of the many tools available to support teachers in measuring student progress across the curriculum. The platform compiles nearly three thousand formative assessment resources that teachers can browse. Teachers can select the curriculum area they want to assess and compare the different assessment tools available. Teachers can also submit their own assessment resource/tool to be shared with others, as long as it respects the established criteria, which includes the

assessment instrument having been checked for reliability and validity. Importantly, the ARB provides specific item tasks to measure student learning in English, Mathematics and Science. These items are based on learning progression frameworks, which were created to present the main learning steps that students take as they develop their knowledge and skills.

Source: (OECD, 2021[25])

Establishing monitoring and regular review mechanisms

Successful education reform hinges on robust and ongoing monitoring and the use of monitoring results to improve implementation. In Indonesia, the shift from rigidly adhering to central directives is substantial. OECD experience suggests that monitoring should concentrate on understanding how teachers' adaptations to the curriculum align with its core goals and principles (Gouëdard et al., 2020[18]).

Indonesia's history of frequent curriculum changes underscores the importance of maintaining a consistent curriculum policy and giving teachers and schools time to adapt (Rosser, King and Widoyoko, 2022[26]). Learning from examples in other countries, the value of scheduled review cycles is evident (Gouëdard et al., 2020[18]). Actively engaging schools in these cycles, as detailed in Box 4, allows education authorities to gather lessons from practice to shape central curriculum and assessment policies.

Box 4. Involving schools in national curriculum review cycles for steady improvement

At the school level, the way curriculum is taught can evolve based on data concerning students and communities. Several countries have mechanisms to systematise this process. Ensuring that schools are involved throughout is one way to ensure results remain relevant to local needs and applicable to improve teaching and learning in specific school contexts.

Japan

Japan employs a ten-year cycle for reviewing its curriculum. These reviews aim to support thorough consideration, development and integration of results into educational practice. Integral to this process is internal monitoring within schools, utilising a "Plan – Do – Check – Act" methodology. This involves organising, implementing, evaluating and improving educational practices based on data specific to student and community needs. Nationally, data from these school-level cycles are compiled before the end of each ten-year period. This rich collection of insights into teaching methods, challenges, and successes informs the revision of the National Curriculum Standards.

Source: (Gouëdard et al., 2020[18]; OECD, 2018[27])

Singapore

Singapore's curriculum cycle spans six years, following a sequence of "Plan (one year) – Develop (two years) – Implement (one year) – Review (two years)." The process begins with planning and consultation, then moves into design, development and trial stages. Throughout these phases, diverse stakeholders, including employers, higher education representatives, and teachers, contribute through focus group discussions. These discussions help gather feedback and suggestions for bridging gaps and exploring new ideas for the curriculum. In Singapore's system, where schools craft their curricula based on national guidelines and are assessed through key stage national exams, this approach fosters a balance between central direction and school-level autonomy.

Source: (Gouëdard et al., 2020[18])

Empowering teachers: supporting instructional capacity and teacher leadership

The second main pillar of the *Merdeka Belajar* reform aims to empower teachers as a key component in its drive to improve results and promote student well-being and agency. Evidence consistently shows that teachers matter significantly for students' learning experiences, with an importance second only to family (Chetty, Friedman and Rockoff, 2014[28]; Jackson, 2018[29]). In recent years, Indonesia has made efforts to professionalise teaching by raising qualification and certification requirements and remuneration. Nevertheless, raising the quality of teaching and learning has remained a challenge (OECD/ADB, 2015[1]; de Ree et al., 2017[30]). *Merdeka Belajar* renews these efforts with a focus on school and teacher leadership and collective professional learning.

A new model of professional learning

Merdeka Belajar intends to transform the existing model of teacher development and learning in Indonesia. Teacher working groups (*Kelompok Kerja Guru*) have a long tradition in Indonesian schools. While they are intended to facilitate professional learning, in practice they often focus on routine and administrative tasks and suffer from low levels of participant motivation (INOVASI, 2019[31]).

Under *Merdeka Belajar*, schools are expected to form professional learning communities as they adopt the new curriculum. However, the new strategy differs from top-down efforts to professionalise teaching. The goal is to promote schools as collaborative learning environments, emphasising exchange and professional dialogue among peers (Syahril, 2023[7]).

This aligns with recent trends away from isolated professional development towards more integrated, school-based and teacher-led learning. Leadership development, too, has received renewed attention. Many countries now take steps to nurture teacher leadership and establish other leadership roles within schools, such as mentors and instructional coaches (OECD, 2019[32]).

A number of factors need to be in place to make professional learning communities truly effective. These include dedicated time, strong leadership, clear objectives and significant cultural shifts within schools, especially where these methods are relatively new (OECD, 2019[32]). Chile and Ontario, Canada are good examples, notable for their attempts to find systematic and scalable strategies for meaningful teacher collaboration and professional development (Box 5).

Box 5. Examples of collaborative practices among teachers in schools

Chile

The Chilean Ministry of Education has implemented a multifaceted approach for fostering teacher collaboration. Key strategies have included:

- scheduled professional learning community time
- lesson studies
- video study clubs
- investigation actions.

These initiatives involve teacher teams utilising various methodologies to address student learning and improve teaching practices. Although these strategies are in their early stages, they are notable for their systematic approach to group improvement.

Ontario (Canada)

Ontario's Ministry of Education has focused heavily on supporting effective teacher collaboration through various initiatives and practices:

- Capacity Building briefs offer practical strategies for teachers and leaders to refine their practices.
- Collaborative inquiry process: Teachers in teams research and address specific challenges in their school, employing a modified version of Deming's Plan-Do-Study-Act cycle. This includes:
  - Co-teaching classes, with shared planning, execution and reflection.
  - Teaching Learning Critical Pathway: Data gathering, analysis and planning for a teaching block, followed by assessment and reflection.
  - Looking at Student Work (LASW): Discussing student work based on common assessment criteria.
  - Deconstructing curriculum to understand how it translates to student learning.
  - Examining student learning progression across grades.
  - Monitoring marker students: Focusing on a small group of students, sharing assessment results, and evaluating teaching strategies based on their learning outcomes.

These efforts encourage teachers to actively engage in continuous improvement of their teaching methods and student learning outcomes.

Source: (OECD, 2019[32])

Supporting learning communities within and between schools

To implement this new model of professional learning across the country, Indonesia will need mechanisms to:

- create communities of learning at scale and ensure their efficacy, while simultaneously maintaining teacher ownership
- establish enhanced systems for codifying and disseminating knowledge about effective teaching across schools.

One way to support this is to allocate time for learning, collaboration and reflection within teachers' schedules. The experiences of countries such as New Zealand, Wales (United Kingdom) and United States suggest that it is also key to document successful practices and facilitate exchange and sharing between schools (OECD, 2019[33]). The challenge for Indonesia will be to facilitate communication and shared knowledge across its large school system.

Box 6. Codifying and sharing knowledge of what works in schools

New Zealand

New Zealand provides different examples for integrating the documentation and sharing of knowledge between schools as part of school reform and improvement initiatives.

In 2007 and 2008, New Zealand introduced new curricula for English-medium and Māori-medium schools. These changes gave schools the freedom to design their own curricula to best meet the identified learning needs of their students, in consultation with their wider school community. The Ministry of Education expected all schools to be engaged in the implementation process by 2010.

Nevertheless, after taking into account the variability in school capacity for implementing the new curriculum, the Ministry of Education determined that it would be helpful if the successful experiences of schools were documented. Consequently, "Curriculum Implementation Exploratory Studies" were launched and gathered case studies to identify factors that support curriculum implementation in early-adopter schools, with a view to supporting other schools in their journey.

In a separate, more recent experience, the Ministry of Education has sought to encourage collaboration and learning among teachers through a Teacher-led Innovation Fund (TLIF). As part of this programme, teachers apply for funds to liberate time in their schedules, form collaborative inquiry groups, receive internal and external expert support and adapt practices as appropriate. As for the curriculum reform, the programme contains an element of documenting the knowledge that is learnt.

Source: (Gouëdard et al., 2020[18]; OECD, 2019[32])

Wales (United Kingdom)

Wales rolled out a new curriculum in 2017. Similar to Indonesia, supporting Welsh schools to become learning organisations has been vital for putting the new curriculum into practice. Wales' model of how schools can become learning organisations has been developed through a process of "co-construction" involving stakeholders from different levels of the education system, including schools and teachers.

The model focusses the efforts of school leaders, teachers, support staff, parents, (local) policy makers and all others involved into realising the seven dimensions of the model in its schools. These action-oriented dimensions and their underlying elements highlight both what a school should aspire to and the processes it goes through as it transforms itself into a learning organisation.

One of these seven dimensions is the embedding of systems for collecting and exchanging knowledge for learning. The remaining dimensions are the following:

- developing a shared vision centred on the learning of all learners
- creating and supporting continuing learning opportunities for all staff
- promoting team learning and collaboration among all staff
- establishing a culture of enquiry, innovation and exploration
- learning with and from the external environment and wider learning system
- modelling and growing learning leadership.

Source: (OECD, 2019[32])

United States

In the United States, a large new initiative to generate codified learning across schools was launched in 2018, funded by the Bill and Melinda Gates Foundation. Not specifically focused on curriculum reform, the initiative seeks to improve learning outcomes of disadvantaged students at secondary level by enabling schools to work together to identify and solve common challenges. In the Networks for School Improvement (NSI), schools use data to identify a problem, select a strategy to address the problem, set goals, and cycle through these steps to refine their approach. As part of the networks' participation in the programme, they commit to participating in formative and summative evaluations that will codify learning about the improvement process, including benefits of the network model.

Source: (Bill & Melinda Gates Foundation, 2018[34])

A digital platform to support professional learning

Indonesia has developed digital tools and resources to support the development of professional learning communities within and across schools (Syahril, 2023[7]). The *Merdeka Mengajar* or "Emancipated Teaching Platform" features:

- tutorials and resources on the new curriculum, including lesson planning
- opportunities for professional learning
- a space for teachers to share their own learning materials, build teaching portfolios and collaborate.

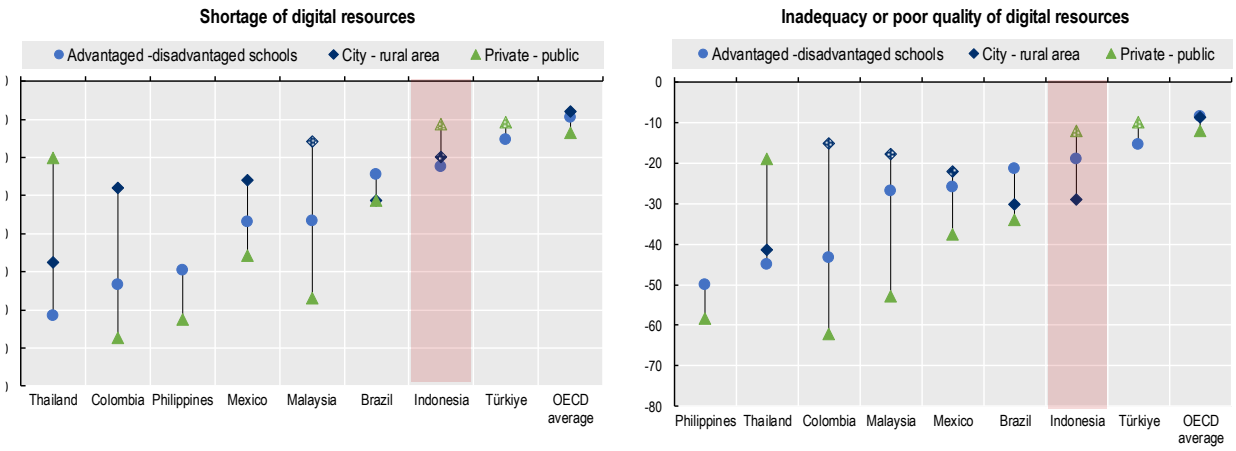
This mirrors the use of a digital "Education Scorecard" to help implement the recently launched formative assessments for students.

Internationally, technology is increasingly used for teacher collaboration to share effective practices and support curriculum implementation (Gouëdard et al., 2020[18]) (OECD, 2019[32]). Examples can be seen in emerging economies such as Kazakhstan and Turkey, where dedicated platforms enable teachers to share pedagogical materials (OECD, 2019[32]). Technology can also play a particularly important role in facilitating collaboration in remote and rural schools. In Italy, the Small Schools (*Piccole Scuole*) initiative uses technology to connect smaller schools across the country (Echazarra and Radinger, 2019[34]; OECD, 2018[10]).

Many factors matter for the success of digital platforms. Teachers need to feel comfortable and skilled in using digital resources effectively. The OECD Teaching and Learning International Survey (TALIS) shows that teachers identify the effective use of digital resources as one of their greatest professional development needs (Schleicher, 2020[36]). There is also the question of connectivity, without which digital initiatives can widen rather than narrow gaps in teaching quality across schools. PISA data show that the availability of digital resources is a concern in disadvantaged and rural schools in Indonesia. This disparity is not as severe, however, as in several other benchmarking countries (Figure 7) (OECD, 2023[3]).

Figure 7. Disparities in access to digital resources appear less pronounced in Indonesia than in other emerging economies

Results based on principals' reports



OECD (2023), PISA Database, https://www.oecd.org/pisa/data/2022database (accessed on 27 November 2023)

Creating the next generation of pedagogical leaders

The *Merdeka Belajar* reforms in Indonesia also include a strong focus on developing pedagogical and teacher leadership. Known as the "Master Teacher programme" (*Pendidikan Guru Penggerak*), this has two main aims: 1) coaching for teachers so they can lead others through reflection, sharing and collaboration; and 2) cultivating a new generation of school principals and superintendents (Syahril, 2023[7]; MoCERT, 2021[6]).

The selection of teachers for the programme is competitive. Participants undertake an extensive 9-month training programme that includes online courses, workshops, conferences and on-the-job mentoring. The training emphasises student-centred teaching, differentiated learning, fostering student agency and well-being, shaping school culture, and facilitating community involvement. Teacher leaders are expected to exemplify Pancasila (Indonesia's official philosophy) and showcase moral, emotional and spiritual growth. Upon completion, these teacher leaders are given priority for principal and superintendent positions, marking a shift in the type of institutional leaders envisioned for Indonesian schools (MoCERT, 2021[6]).

The overarching goal is to bolster teacher leadership across Indonesian schools, by supporting leadership skills both within and outside of school management teams. PISA data show that most principals in Indonesia today undertake actions associated with pedagogical leadership, which might signal a changing understanding of their role (Table 1) (OECD, 2023[3]). However, national standards for school principals tend to emphasise management skills more than pedagogical leadership (INOVASI, 2019[36]) and more data would be needed to understand the quality of principal-teacher interactions and their effect on distributing leadership across schools.

Table 1. Principals in Indonesia report supporting teachers in ways similar to their peers in OECD countries

Results based on principals' reports

	Percentage of students in schools whose principals reported that they, or someone else in the management team, engaged in the following actions at least once a month:					
	Collaborating with teachers to solve classroom discipline problems	Providing feedback to teachers based on observations of instruction in the classroom	Taking actions to support co-operation among teachers to develop new teaching practices	Taking actions to ensure that teachers take responsibility for improving their teaching skills	Taking actions to ensure that teachers feel responsible for their students' learning outcomes	Providing parents or guardians with information on the school and student performance
Philippines	91	89	93	94	99	93
Brazil	95	91	94	91	92	88
Thailand	92	85	84	83	90	35
Türkiye	89	59	71	78	88	80
Colombia	88	60	79	76	75	82
Mexico	82	59	77	71	75	78
Malaysia	85	59	83	83	87	20
OECD average	85	58	67	61	67	65
Indonesia	76	69	69	70	70	36

Note: Countries and economies are ranked in descending order of the average of the seven actions.
OECD (2023), PISA Database, https://www.oecd.org/pisa/data/2022database (accessed on 27 November 2023)

Efforts to create greater pedagogical leadership among serving teachers are observed in a number of other countries. Singapore, for instance, has a particularly well-established approach, with various programmes to cultivate teacher leadership in different stages of their careers (Box 7) (OECD, 2019[32]).

Box 7. Developing teacher leadership: the example of Singapore

The Management and Leadership in Schools (MLS) programme is a 17-week milestone leadership programme for middle managers (MMs) in schools. MLS courses provide diverse learning experiences and opportunities to reflect deeply on educational leadership values and philosophy. They aim to support participants to learn and develop relevant knowledge, skills and competencies (e.g. a "Leader Growth Model") for leadership across schools. This is supported by a diverse range of pedagogies such as online learning, case studies, cooperative learning, small group discussions and presentations to ensure that different modes of learning are experienced.

Source: (OECD, 2019[32])

Reaching more teachers without compromising quality

A key challenge facing Indonesia's teacher leadership development lies in extending the training and support to a larger number of teachers. In its initial phase, the programme provided training and on-the-job coaching to 2 800 teachers across 58 subnational governments. At the time of writing, the education ministry was planning to extend this to over 400 000 teachers in the next five years, representing about 12% of the total teacher cohort (Syahril, 2023[7]).

A strategic approach would be to focus on areas where the most significant gains can be achieved. Ensuring teacher leaders receive continuous support is important for maintaining the quality of their work. Balancing their primary teaching role with their new leadership role is essential also to prevent their focus from being spread too thin, which could affect the quality of their leadership, coaching and feedback to colleagues (OECD, 2019[32]). Utilising technology, such as video-based coaching, could be a viable option to broaden the impact of trained teacher leaders across Indonesia (OECD, 2019[32]).

Conclusion: the challenge of effective implementation across Indonesia's diverse education system

Tackling persistent gaps in educational outcomes in Indonesia goes beyond policy formulation; it is about transforming these policies into change in the classroom. The true test for the *Merdeka Belajar* reforms lies in their implementation. Realising the educational aspirations for Indonesia's 53 million students requires the concerted efforts of two ministries responsible for education, 552 subnational governments, 437 334 schools, and the dedication of 3.3 million teachers.

Indonesia's approach to reform demonstrates promising features that have been critical for success in other countries. There has been clear communication about the reform's focus on student learning, strong emphasis on capacity building at the school level, and a trust-based approach towards schools and teachers (Syahril, 2023[38]). The continued active participation of teachers and institutional leaders will be important to the reforms' success.

Indonesia's Merdeka Belajar initiatives, offering schools the choice to opt in or out and introduced progressively, pave the way for experimentation and adaptation. It will be crucial to use these opportunities to address any differences in impact across the country. With broad reach and engagement, these reforms could significantly shape Indonesia's educational future. A decade from now, the question will be: did Merdeka Belajar fulfil its promise to transform Indonesian education and accelerate the country's transition towards higher levels of prosperity and development?

For more information

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References

Aditomo, A. (2022), *Recovering Education with Emancipated Learning*, Ministry of Education, Culture, Research and Technology of the Republic of Indonesia, https://bangkok.unesco.org/sites/default/files/assets/article/Inclusion%20and%20Gender%20Equality%20in%20Education/documents/Session%203_Anindito%20Aditomo_MECRT_Indonesia.pdf (accessed on 22 November 2023). [12]

Bill & Melinda Gates Foundation (2018), *Networks for School Improvement: Working together to help*, http://k12education.gatesfoundation.org/what-we-do/networks-for-school-improvement (accessed on 25 November 2023). [34]

Burns, T. and F. Köster (eds.) (2016), *Governing Education in a Complex World*, Educational Research and Innovation, OECD Publishing, Paris, https://doi.org/10.1787/9789264255364-en. [20]

Chetty, R., J. Friedman and J. Rockoff (2014), "Measuring the Impacts of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood", *American Economic Review*, Vol. 104/9, pp. 2633-2679, https://doi.org/10.1257/aer.104.9.2633. [28]

de Ree, J. et al. (2017), *Double for Nothing? Experimental Evidence on an Unconditional Teacher Salary Increase in Indonesia*, World Bank, Washington, DC, https://doi.org/10.1596/1813-9450-8264. [30]

Echazarra, A. and T. Radinger (2019), "Learning in rural schools: Insights from PISA, TALIS and the literature", *OECD Education Working Papers*, No. 196, OECD Publishing, Paris, https://doi.org/10.1787/8b1a5cb9-en. [35]

Gouëdard, P. et al. (2020), "Curriculum reform: A literature review to support effective implementation", *OECD Education Working Papers*, No. 239, OECD Publishing, Paris, https://doi.org/10.1787/efe8a48c-en. [18]

INOVASI (2019), *Policy Brief: Improving Teacher Working Groups in Indonesia, October 2019*, INOVASI, Jakarta, https://www.inovasi.or.id/wp-content/uploads/2022/02/Policy-Brief-8-KKG-2011-2019.pdf (accessed on 22 November 2023). [31]

INOVASI (2019), *Policy Brief: School Leadership and Learning, October 2019*, INOVASI and Center for Education Policy Research, Jakarta, https://www.inovasi.or.id/wp-content/uploads/2022/06/Policy-Brief-3-Leadership-2011-2019.pdf (accessed on 22 November 2023). [37]

Jackson, C. (2018), "What Do Test Scores Miss? The Importance of Teacher Effects on Non–Test Score Outcomes", *Journal of Political Economy*, Vol. 126/5, pp. 2072-2107, https://doi.org/10.1086/699018. [29]

Kraft, M. and G. Falken (2021), "A Blueprint for Scaling Tutoring Across Public Schools", *EdWorkingPapers*, No. 20-335, Annenberg Institute, Brown University, https://doi.org/10.26300/dkjh-s987. [8]

MoCERT (2021), *Merdeka Belajar*, https://merdekabelajar.kemdikbud.go.id/en (accessed on 20 November 2023). [6]

Newman, K. and E. Gentile (2020), "How Teachers Teach:", *ADB Briefs*, Asian Development Bank, Manila, Philippines, https://doi.org/10.22617/brf200279. [11]

OECD (2023), *PISA 2022 Results (Volume I): The State of Learning and Equity in Education*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/53f23881-en. [2]

OECD (2023), *PISA 2022 Results (Volume II): Learning During – and From – Disruption*, PISA, OECD Publishing, Paris, https://doi.org/10.1787/a97db61c-en. [3]

OECD (2023), *PISA Database*, https://www.oecd.org/pisa/data/2022database (accessed on 27 November 2023). [39]

OECD (2023), *Supporting Students to Think Creatively: What Education Policy Can Do*, OECD, Paris, https://www.oecd.org/pisa/innovation/creative-thinking/ (accessed on 16 November 2023). [23]

OECD (2021), *Embedding Values and Attitudes in Curriculum: Shaping a Better Future*, OECD Publishing, Paris, https://doi.org/10.1787/aee2adcd-en. [14]

OECD (2021), "National assessment reform: Core considerations for Brazil", *OECD Education Policy Perspectives*, No. 34, OECD Publishing, Paris, https://doi.org/10.1787/333a6e20-en. [25]

OECD (2021), *OECD Economic Surveys: Indonesia 2021*, OECD Publishing, Paris, https://doi.org/10.1787/fd7e6249-en. [22]

OECD (2020), *Curriculum Overload: A Way Forward*, OECD Publishing, Paris, https://doi.org/10.1787/3081ceca-en. [17]

OECD (2020), *What Students Learn Matters: Towards a 21st Century Curriculum*, OECD Publishing, Paris, https://doi.org/10.1787/d86d4d9a-en. [15]

OECD (2019), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential*, OECD Publishing, Paris, https://doi.org/10.1787/2b8ad56e-en. [16]

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en. [33]

OECD (2019), *Working and Learning Together: Rethinking Human Resource Policies for Schools*, OECD Reviews of School Resources, OECD Publishing, Paris, https://doi.org/10.1787/b7aaf050-en. [32]

OECD (2018), *Curriculum Flexibility and Autonomy in Portugal - an OECD Review*, OECD, Paris, https://www.oecd.org/education/2030/Curriculum-Flexibility-and-Autonomy-in-Portugal-an-OECD-Review.pdf (accessed on 28 November 2023). [21]

OECD (2018), *Education Policy in Japan: Building Bridges towards 2030*, Reviews of National Policies for Education, OECD Publishing, Paris, https://doi.org/10.1787/9789264302402-en. [27]

OECD (2018), *Responsive School Systems: Connecting Facilities, Sectors and Programmes for Student Success*, OECD Reviews of School Resources, OECD Publishing, Paris, https://doi.org/10.1787/9789264306707-en. [10]

OECD (2017), *The Funding of School Education: Connecting Resources and Learning*, OECD Reviews of School Resources, OECD Publishing, Paris, https://doi.org/10.1787/9789264276147-en. [9]

OECD (2013), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://doi.org/10.1787/9789264190658-en. [13]

OECD/ADB (2015), *Education in Indonesia: Rising to the Challenge*, Reviews of National Policies for Education, OECD Publishing, Paris, https://doi.org/10.1787/9789264230750-en. [1]

Randall, R. et al. (2022), *Reforming Indonesia's curriculum: how Kurikulum Merdeka aims to address learning loss and learning outcomes in literacy and numeracy*, INOVASI, Jakarta, https://www.inovasi.or.id/en//?sdm_process_download=1&download_id=12548 (accessed on 25 November 2023). [19]

Rosser, A., P. King and D. Widoyoko (2022), *The Political Economy of the Learning Crisis in Indonesia*, Research on Improving Systems of Education (RISE), https://doi.org/10.35489/bsg-rise-2022/pe01. [26]

Schleicher, A. (2020), *Insights and Interpretations TALIS 2018 Teaching and Learning International Survey*, OECD, Paris, https://www.oecd.org/education/talis/TALIS2018_insights_and_interpretations.pdf (accessed on 30 November 2023). [36]

Syahril, I. (2023), *Emancipated Learning: Lessons Learned from Transforming an Education System*, Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia, https://smeru.or.id/sites/default/files/events/231114_-_iwan_syahril_emancipated_learning_lesson_learned_from_transforming_an_education_system.pptx_0.pdf (accessed on 25 November 2023). [7]

Syahril, I. (2023), "System leadership and transforming education: A reflection from Indonesia's experience in Merdeka Belajar (Emancipated Learning)", *CSE Leading Education Series*, No. 17, Centre for Strategic Education, East Melbourne, VIC, https://www.cse.edu.au/leading-education-bundles/ (accessed on 25 November 2023). [38]

Viennet, R. and B. Pont (2017), "Education policy implementation: A literature review and proposed framework", *OECD Education Working Papers*, No. 162, OECD Publishing, Paris, https://doi.org/10.1787/fc467a64-en. [24]

World Bank (2023), *Indonesia Economic Prospects, June 2023: The Invisible Toll of COVID-19 on Learning*, World Bank, https://doi.org/10.1596/39921. [4]

World Bank (2020), *The Promise of Education in Indonesia*, World Bank, Washington DC. [5]

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