

# 01

## The current state of Indonesia's education ecosystem

> Taking stock: How Indonesia's education system fares today

24





# The current state of Indonesia's education ecosystem



© Eka Tjipta Foundation

Indonesia's education system is large and complex. The country's student population is larger than the entire population of Spain. Indonesia also employs more teachers than Walmart, the world's largest company by revenue, employs staff, and has almost twice as many primary and secondary schools as the United States. Managing such a vast education system is challenging, and, despite strong progress in many areas in recent years, challenges remain.

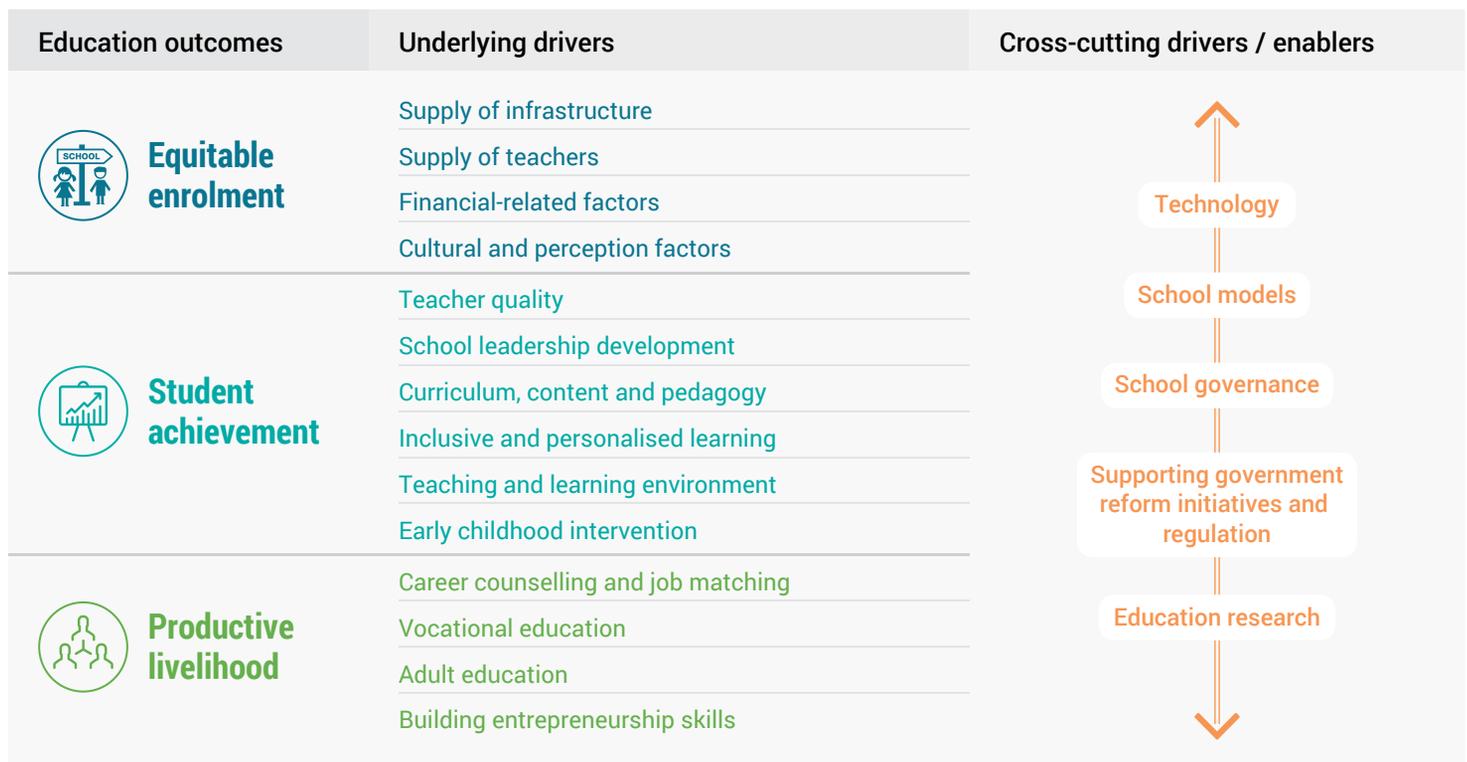
## TAKING STOCK: HOW INDONESIA'S EDUCATION SYSTEM FARES TODAY

Education outcomes span a wide spectrum of metrics, and determining the performance level of an overall system is tricky at best. However, a reasonable snapshot can be captured by considering three basic points:

- 1. EQUITABLE ENROLMENT:** Do Indonesian students have uniform access to education regardless of gender, disabilities, geography, or socioeconomic circumstances?
- 2. STUDENT ACHIEVEMENT:** Does the quality of education lead to acceptable student achievement?
- 3. PRODUCTIVE LIVELIHOOD:** Do the skills and knowledge gained align with the needs of industry and entrepreneurship?

Each of these outcomes can be linked directly to drivers that can deliver improvements, as well as some drivers that span across the three outcomes (Exhibit 1).

## EXHIBIT 1 :: Framework to assess education outcomes and their underlying drivers



### EQUITABLE ENROLMENT

Equitable enrolment encompasses the idea that children should have uniform access to education, and in recent years Indonesia has shown progress toward this end. Access to basic education is nearly universal. Today, almost 97 percent of children between 6 and 12 years old attend primary school (Exhibit 2). In addition, enrolment rates in lower secondary schools – students between 12 and 15 years old – jumped from 64 percent to 78 percent between 2003 and 2016. Both metrics have moved above the average for the region.

A number of government policies and initiatives have contributed to improving the access, availability, and affordability of basic education, including the school operational assistance (Bantuan Operasional Sekolah, or BOS) grant; “One Roof” primary and junior secondary schools housed in the same building in remote areas; and local school grants (Bantuan Operasional Sekolah Daerah, or BOSDA).<sup>34</sup>

However, many gaps remain. Senior secondary school enrolment reached just 60 percent, despite an almost 20 percentage point improvement since 2003. And, according to the latest National Socio-Economic Survey, about 1 million children between 7 and 15 years old did not attend school in 2016 and about 3.6 million of those between 16 and 18 years old did not.<sup>35</sup> In addition, large variations are shown in enrolment rates across provinces, particularly at the upper secondary level.<sup>36</sup>

After examining a broad set of potential factors, two main drivers emerged as being particularly important for explaining these enrolment rates:

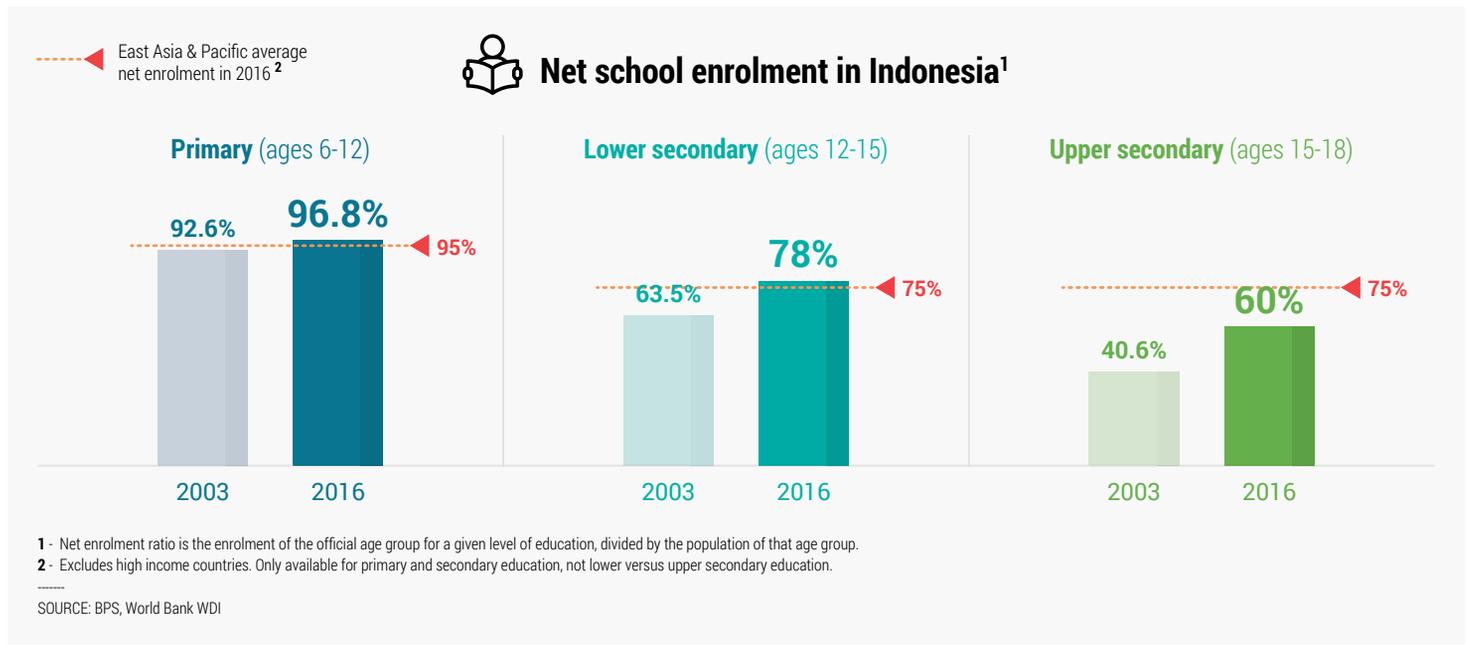
**1. Financial-related factors:** Data from Badan Pusat Statistik (BPS), the national statistics office, showed many students stop attending school because of financial problems, with around 25 percent of dropouts saying they could not afford school fees and a further 25 percent saying they needed to earn money. In addition to launching BOS, a massive

<sup>34</sup> - ADB (2015), Education in Indonesia: Rising to the Challenge.

<sup>35</sup> - Badan Pusat Statistik (2016), National Socio-Economic Survey, and UNICEF (2016), The school years, accessed at [https://www.unicef.org/indonesia/children\\_2833.html](https://www.unicef.org/indonesia/children_2833.html).

<sup>36</sup> - For example, there is a 34-percentage point gap between the province with the highest enrolment rates, Bali, and that with the lowest enrolment rates, Papua. Based on BPS and World Bank data.

## EXHIBIT 2 :: Net enrolment rate has risen up to 20% since 2003, but still gaps in upper secondary to regional average



school operation grant programme that injects funds directly into schools, the government has also rolled out two conditional cash transfer programmes: the poor students assistance programme (Bantuan Siswa Miskin, or BSM), and the family hope programme (Program Keluarga Harapan, or PKH) to increase school enrolment for children from poor families. These two programmes have been facilitated by the new KIP (Kartu Indonesia Pintar) smart card which allows recipients to access the funds directly.<sup>37</sup>

While these programmes have increased enrolment, much can be done to improve targeting and timing (e.g., students do not know whether they will receive BSM until they have enrolled in school).<sup>38</sup>

**2. Cultural and perception factors:** A range of cultural factors prevent students from staying in school, including the perception that women do not need lengthy schooling, which was cited by almost 25 percent of female dropouts as the reason they left school.<sup>39</sup>

The research also suggested that school infrastructure and teacher staffing levels are relatively minor factors in enrolment rates. Primary schools are readily available in Indonesia, and while there are

fewer secondary schools, resulting in longer student commutes, only 2 percent of the students in the BPS study mentioned distance to school as a reason for dropping out.<sup>40</sup> Also, student-teacher ratios in Indonesia are among the lowest globally, with about 1 teacher for every 15 students in primary and general secondary school and 1 for every 6 students in vocational upper secondary school.

### STUDENT ACHIEVEMENT

Although enrolment in Indonesian schools is at a historical high, indications show that students are behind their international peers. Indonesia's scores in various standardised international education tests are comparably weak. For example, the OECD's Programme for International Student Assessment (PISA) study ranks Indonesia among the bottom 10 percent of countries worldwide. In 2015, between 55 and 69 percent of Indonesian students performed below the minimum levels across subjects, and performance in reading has actually fallen since 2009 (Exhibit 3).

Details from the OECD findings, however, highlighted areas of progress that contrasted with these disappointing overall results. In particular, science scores among 15-year-old students in Indonesia

<sup>37</sup> - ADB (2015), Education in Indonesia: Rising to the Challenge.

<sup>38</sup> - ACDP (2014), Rapid Assessment of the Cash Transfer for the Poor Students Programme (BSM).

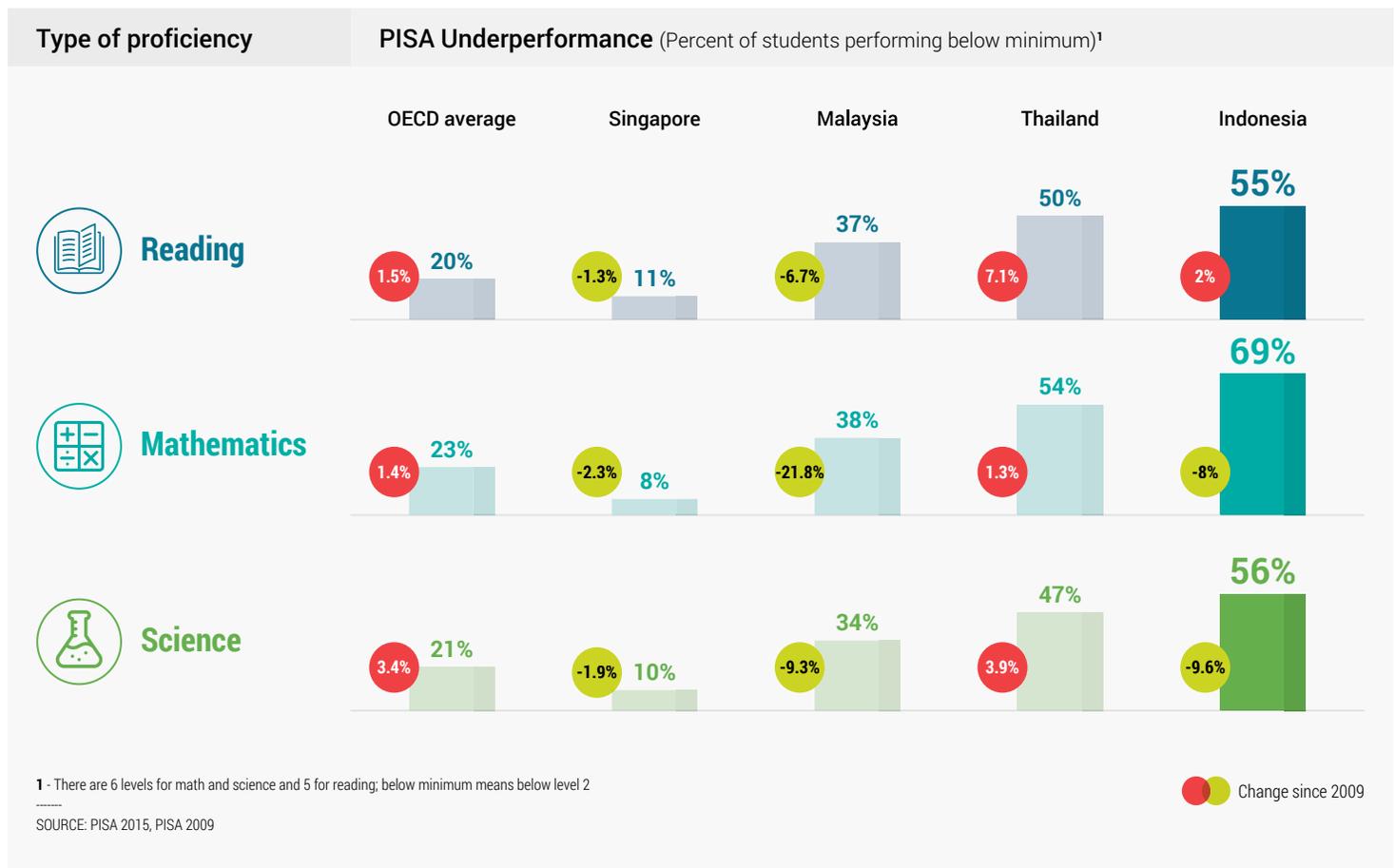
<sup>39</sup> - Badan Pusat Statistik (2016), National Socio-Economic Survey; and UNICEF (2016), The school years, accessed at [https://www.unicef.org/indonesia/children\\_2833.html](https://www.unicef.org/indonesia/children_2833.html).

<sup>40</sup> - Ibid.

<sup>41</sup> - OECD (2016), Indonesia Country Note (accessed at: <https://www.oecd.org/pisa/PISA-2015-Indonesia.pdf>).

<sup>42</sup> - ACDP (2014), Study on Teacher Absenteeism in Indonesia.

<sup>43</sup> - Aptitude test (Uji Kompetensi Guru) is a mandatory test to measure base teacher competency for subject matters and pedagogy conducted by the Ministry of Education and Culture (accessed at: <https://www.kemdikbud.go.id/main/blog/2016/01/7-provinsi-raih-nilai-terbaik-uji-kompetensi-guru-2015>).

**EXHIBIT 3 :: More than half of Indonesian students are performing below the minimum levels on international tests**

44 - World Bank (2014), Teacher Reform in Indonesia.

45 - ACDP (2013), School and Madrasah Principal and Supervisor Competency Baseline Study.

46 - Bappenas (2015), Background study for the preparation of the RPJMN for education 2015-2019.

47 - Ibid.

48 - Some studies suggest stunted development during childhood can lead to a loss of up to 22 percent in annual earnings later in life. For more information see Sally Grantham-McGregor, et.al, Development Potential in the First 5 Years for Children in Developing Countries, The Lancet, 2007.

49 - The World Health Organisation (WHO) definition of stunted development is for the "height for age" value to be less than two standard deviations of the WHO Child Growth Standards median.

50 - Indonesia Ministry of Health (2016), Situasi Balita Pendek 2016.

rose by 21 points between 2012 and 2015, the fifth best improvement recorded among the 72 countries included in the comparison.<sup>41</sup> Three drivers in particular contribute to these results:

**1. Teacher quality:** Despite the abundance of teaching staff and reform efforts in Indonesia (e.g. the Teacher Law of 2005 aims to raise the status and quality of teachers), ensuring teacher quality remains a challenge in many regions. On average, 10 percent of teachers are frequently absent from schools and 13 percent of teachers are at the school, but not in the classroom.<sup>42</sup> In remote areas, absenteeism can be as high as 19 percent.

The quality of teaching is also troublesome. On average, Indonesian teachers scored 53 percent on a national teacher aptitude test in 2015,<sup>43</sup> and a World Bank study in 2014 found no evidence that reforms in teacher certification in Indonesia improved student learning outcomes.<sup>44</sup>

**2. School leadership:** School leadership is also a challenge across Indonesia. In a 2013 survey, only 2 percent of teachers rated their principal as a competent motivator, 5 percent rated them as academically competent, and 8 percent as a competent leader (Exhibit 4).<sup>45</sup>

School leadership deficiencies also affect other areas, such as the teaching environment. As a worrying sign, in 2015 no Indonesian school met all of the country's Minimum Service Standards (MSS).<sup>46</sup> From the report, in 40 percent of the schools, not all teachers were using lesson plans and in almost 50 percent of schools, not all teachers were offering students regular assessments to improve their learning.<sup>47</sup>

**3. Early childhood intervention:** Nutrition and cognitive stimulation in a child's early years are strongly linked to education outcomes and employment success later in life.<sup>48</sup> However, according to the Indonesia Ministry of Health, 29 percent of Indonesian children under the

## EXHIBIT 4 :: Principals in Indonesia appear over-burdened with administrative tasks and spend limited time coaching and leading teachers



age of 5 years old suffer from stunted development<sup>49</sup> because of chronic malnutrition<sup>50</sup>, a rate well above that of its peers, such as Malaysia, 18 percent, and Thailand, 11 percent.<sup>51</sup> Significant steps have been taken by the government to widen access to and improve the quality of early childhood education, building on initiatives since 2001, and following the 2010 “Grand Design”, a blueprint for the development of early childhood education (ECE).

Although ECE enrolment rates in Indonesia have risen steadily in recent years, they are not evenly spread across the country and across socio-economic groups.

The bulk of growth in provision and participation of ECE has been in the for-profit private sector which is accessed by parents who can afford to pay for this provision. Children from the poorest families, who could benefit most from early learning and care, are the least able to gain access and the most likely to fall behind in subsequent stages of schooling.<sup>52</sup>

For example, the enrolment rate for the wealthiest quintile of households was 42 percent, while the rate for the poorest quintile was 30 percent. Comparing across regions, 63 percent of 3- to 6-year-olds were enrolled in ECED services in Yogyakarta compared with 12 percent in Papua and 16 percent in Kalimantan Barat.<sup>53</sup> Overall, Indonesia ranked 44th of 45 countries on early education availability, access, and quality in a study by the Economist Intelligence Unit.<sup>54</sup>



<sup>51</sup> - UNICEF (2016). THAILAND Multiple Indicator Cluster Survey 2015-2016; ASEAN (2016) Regional Report on Nutrition Security in ASEAN

<sup>52</sup> - ADB (2015), Education in Indonesia: Rising to the Challenge.

<sup>53</sup> - Based on data from the Indonesian Ministry of Education.

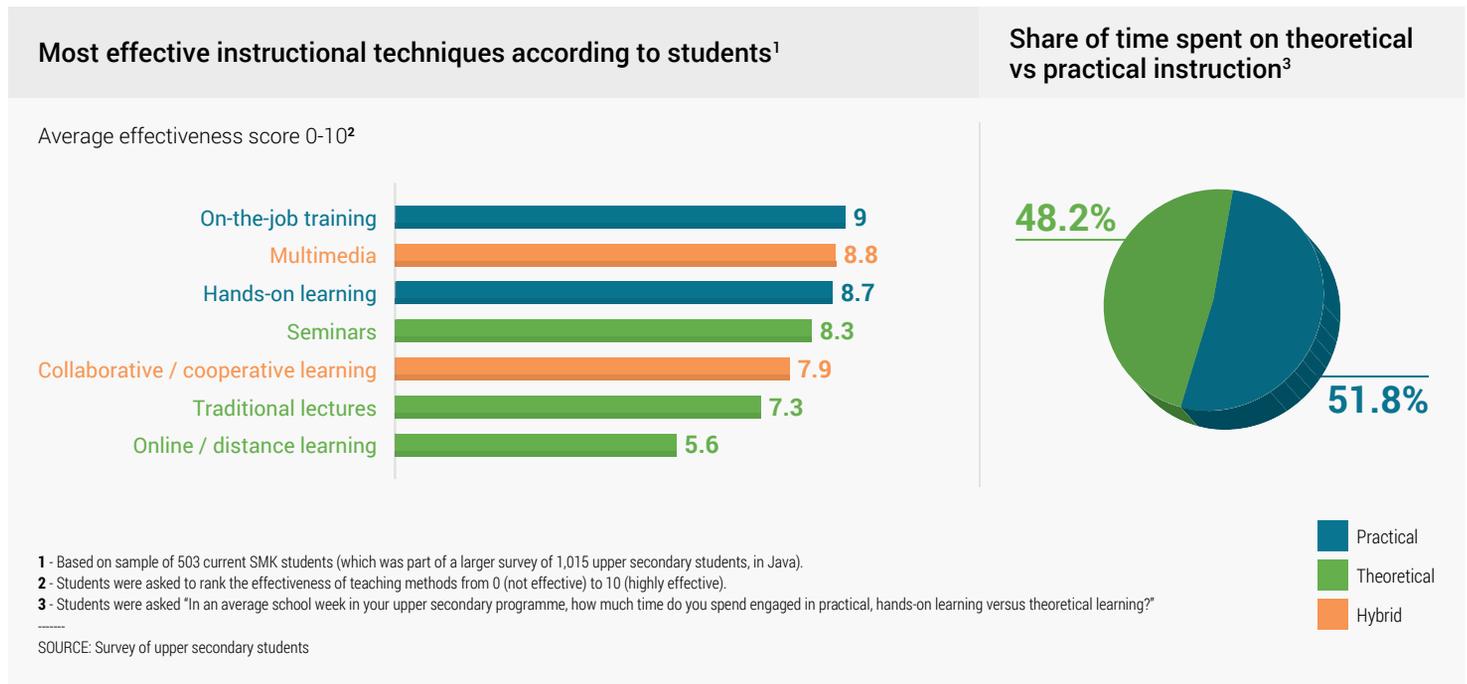
<sup>54</sup> - Economist Intelligence Unit (EIU) and Lien Foundation (2012), Starting well Benchmarking early education across the world, accessed at [http://www.lienfoundation.org/sites/default/files/sw\\_report\\_2.pdf](http://www.lienfoundation.org/sites/default/files/sw_report_2.pdf).

<sup>55</sup> - ADB (2015), Education in Indonesia: Rising to the Challenge.

<sup>56</sup> - Bappenas (2015), Background study for the preparation of the RPJMN for education 2015-2019.

What about curriculum? Indonesia's new curriculum, Kurikulum 2013, is designed to develop critical thinking and creativity in students, as well as to provide them with more contemporary knowledge options.<sup>55</sup> Kurikulum 2013 features many best-practices and adopts a more integrated, student-centred approach to learning.<sup>56</sup>

However, successful curriculum reform must be underpinned by delivery which relies heavily on teacher quality and supporting resources. An ADB study

**EXHIBIT 5 :: While students feel that hands-on learning is effective, much of their training is still theoretical**

notes that teachers want training in various aspects of the new curriculum, including content knowledge, thematic teaching, interactive pedagogy, and group learning.<sup>57</sup> Unless teachers have confidence in their own competence to deliver to the goals of the new curriculum, they are likely to default to the traditional recitation method in their classrooms, and thus the new curriculum will not achieve its intended outcomes. Changes in curriculum may therefore have minimal impact without improvements in teacher quality and adequate supporting resources.

### PRODUCTIVE LIVELIHOOD

Many Indonesian young adults struggle to find a job after leaving school. Youth unemployment in Indonesia, while down considerably from a peak in 2005, remained at a worrisome 19 percent in 2015, compared with about 12 percent in Malaysia. In 2011 World Bank survey, 56 percent of vocational students in Indonesia who responded said they felt either somewhat or poorly prepared to enter the workforce.<sup>58</sup>

At the same time, relevant industry skills are heavily demanded, with about 60 percent of Indonesian firms reporting difficulties in filling professional roles.<sup>59</sup> In a 2012 study, the McKinsey Global Institute estimated

that Indonesia could face a shortfall of 9 million skilled and semi-skilled workers by 2030.<sup>60</sup>

The key drivers behind this skills gap include:

**1. Career counselling and job matching:** Schools and industry cooperate minimally in matching training programmes to employer needs. Of vocational students surveyed, 32 percent said they had a limited understanding of job opportunities and 42 percent said they did not fully understand the wage possibilities available.<sup>61</sup>

**2. Vocational education:** Interviews with employers and students highlighted concerns around insufficient employer input into the curriculum, limited hands-on training, and low teacher quality. The survey of vocational students found that on-the-job training and hands-on learning scored the highest in perceived effectiveness among vocational students,<sup>62</sup> yet even among the top SMK schools only about 50 percent of teaching time is spent on practical training as opposed to theoretical lessons, while practical training in some of the world's leading vocational systems accounts up to 75 percent of instruction time (Exhibit 5).<sup>63</sup>

<sup>57</sup> - ADB (2015), Education in Indonesia: Rising to the Challenge.

<sup>58</sup> - World Bank (2011), Indonesia for the labor market in Indonesia: trends in skills demand, gaps, and supply in Indonesia.

<sup>59</sup> - Ibid.

<sup>60</sup> - McKinsey Global Institute (2012), The archipelago economy: Unleashing Indonesia's potential.

<sup>61</sup> - Based on a survey of 1,015 upper secondary students conducted as part of this research. 503 of which were SMK students, the rest were SMA students.

<sup>62</sup> - Ibid.

<sup>63</sup> - According to OECD research, more than three-quarters of vocational training programmes in Denmark, Germany, Finland, France, Norway, and Switzerland at the upper secondary level spend 50-75% of instructional time in practical or on-site training. For further information see Małgorzata Kuczera, (2010), Learning for Jobs - The OECD International Survey of VET Systems: First Results and Technical Report, accessed at <https://www.oecd.org/edu/skills-beyond-school/47334855.pdf>.