

Why literacy measurement deserves rethinking

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In a 1958 convention of the United Nations Educational, Scientific and Cultural Organization (UNESCO), it was agreed that a person who is literate is one “who can, with understanding, both read and write a short, simple statement on his or her everyday life” (UNESCO 1958, p.153).

Using such a metric, 98.3 percent of Filipinos aged 10 years and over are literate as of 2015 (PSA 2017). This simple or basic literacy rate sourced from the 2015 Population Census (POPCEN) is higher than the previously recorded 97.1 percent literacy rate in the 2010 Census of Population and Housing (CPH).

Two decades later, UNESCO recommended a definition of functional literacy. According to UNESCO, “a person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his or her group and community and also for enabling him or her to continue to use reading, writing, and calculation for his or her own and the community’s development” (UNESCO 1978, p.183).

This *Policy Note* reviews a wealth of information from several nationally representative surveys measuring literacy. It also provides some key policy insights toward improving the measurement of literacy and making literacy more inclusive in its various forms and nuances.

Salient Points:

- *Population censuses and sample surveys suggest that Filipinos are quite literate. Based on the 2015 Population Census, simple literacy is nearly universal (98.3%) among Filipinos aged 10 years and over. The 2019 Functional Literacy and Mass Media Survey also suggests that among children aged 10–17, only 1 in 20 cannot read and write simple messages in any language or dialect, while 1 in 10 is functionally illiterate.*
- *Literacy varies across gender, geographical location, socioeconomic status, and school attendance.*
- *Data from the 2019 National ICT Household Survey suggest that digital literacy skills are fairly limited. Only 2 in 5 Filipinos have at least 1 of the 6 basic information and communications technology skills monitored for the Sustainable Development Goals. Hence, digital literacy needs serious enhancement, especially among the very young and the elderly.*
- *Given the biases inherent in reported literacy skills versus tested skills, it is essential to review how literacy is measured so that policymakers and stakeholders can find better ways to improve Filipinos’ literacy, numeracy, and digital competencies.*

Basic and functional literacy

Aside from the CPH and the POPCEN, the Functional Literacy and Mass Media Survey (FLEMMS)¹ also provides basic and functional literacy measures among 10–64-year-old Filipinos.

Data from the 2019 FLEMMS suggest that nearly all (96.4%) Filipinos aged 10–64 can read and write simple messages in any language or dialect. In 2019, the basic literacy rate among children aged 10–17² was estimated

¹ Started in 1989, the FLEMMS is a nationally representative survey, with respondents chosen through a two-stage design: (1) enumeration areas (EA), mostly barangays, are identified and (2) within the selected EAs, housing units or dwellings are identified as the secondary sampling unit. Households in the sampled dwellings are interviewed for the survey.

² Unlike the UNESCO Institute of Statistics, which reports on the adult literacy rate (corresponding to those aged 15 and above), youth literacy rate (15–24), and elderly literacy rate (65 and over), this paper focuses only on the 10–17 age group because of its relevance to basic education.

at 97.7 percent, up from 94.8 percent in 2013. However, basic literacy among children of this age group varies by sex (in favor of females) and across regions, with rates ranging from a low of 80.4 percent in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) to a high of 99.1 percent in the National Capital Region (NCR).

Furthermore, 2019 FLEMMS data show that 9 in 10 children aged 10–17 years are functionally literate³ (Table 1). As in basic literacy rates, the functional literacy rates estimated from FLEMMS are higher for

³ FLEMMS respondents are asked to indicate the following information: (1) full name, (2) address, (3) complete date of birth, and (4) highest educational attainment. To measure their functional literacy, they are asked the following: (1) If a kilo of rice costs PHP 55.00, how much will two kilos cost? (2) If a kilo of sugar costs PHP 72.00, how much will a half kilo cost? Meanwhile, to measure comprehension ability, each respondent is also asked to read a paragraph and answer a set of questions. Persons who completed high school or a higher level of education are also considered functionally literate.

Table 1. Functional literacy (%) of 10–17-year-old children across regions by sex, 2019

Region	Male	Female	Both Sexes
Region I - Ilocos Region	88.5	94.1	91.3
Region II - Cagayan Valley	92.3	93.2	92.7
Region III - Central Luzon	90.6	93.3	91.9
Region IVA - CALABARZON	91.4	93.3	92.3
Region IV-B - MIMAROPA	79.4	83.5	81.4
Region V - Bicol	87.6	92.2	89.8
Region VI - Western Visayas	87.1	90.3	88.6
Region VII - Central Visayas	84.1	88.0	86.0
Region VIII - Eastern Visayas	79.0	84.1	81.5
Region IX - Zamboanga Peninsula	87.6	91.1	89.3
Region X - Northern Mindanao	94.2	96.4	95.2
Region XI - Davao	89.8	95.0	92.4
Region XII - SOCCSKSARGEN	77.2	85.3	81.2
Region XIII - Caraga	90.3	92.5	91.4
National Capital Region	90.9	91.6	91.3
Cordillera Administrative Region	90.0	90.5	90.2
Bangsamoro Autonomous Region in Muslim Mindanao	74.5	78.6	76.5
PHILIPPINES	87.5	90.7	89.1

CALABARZON = Cavite, Laguna, Batangas, Rizal, and Quezon; MIMAROPA = Mindoro, Marinduque, Romblon, and Palawan; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, Sarangani and General Santos City
Source: Author's calculations using data from PSA (2019)

girls aged 10 to 17 than for boys; this gender gap in favor of girls is observed across regions. Again, BARMM noticeably has the lowest functional literacy rate (76.5%), while Northern Mindanao has the highest rate (95.2%).

As expected, literacy rates are higher among children aged 10–17 who read newspapers, magazines, or posters than nonreaders. The differences vary by 8–11-percentage points for basic literacy and 12–14-percentage points for functional literacy. Further, functional literacy is higher among children who listen to radio and watch television and movies than those

who do not. Digital divides are also concomitant to literacy gaps (Table 2).

Literacy is also ultimately tied to socioeconomic status. Kids aged 10 to 17 with access to safe water and sanitation from nonpoor households have higher functional literacy rates than those without (Figure 1).

Out-of-school children (OOSC)

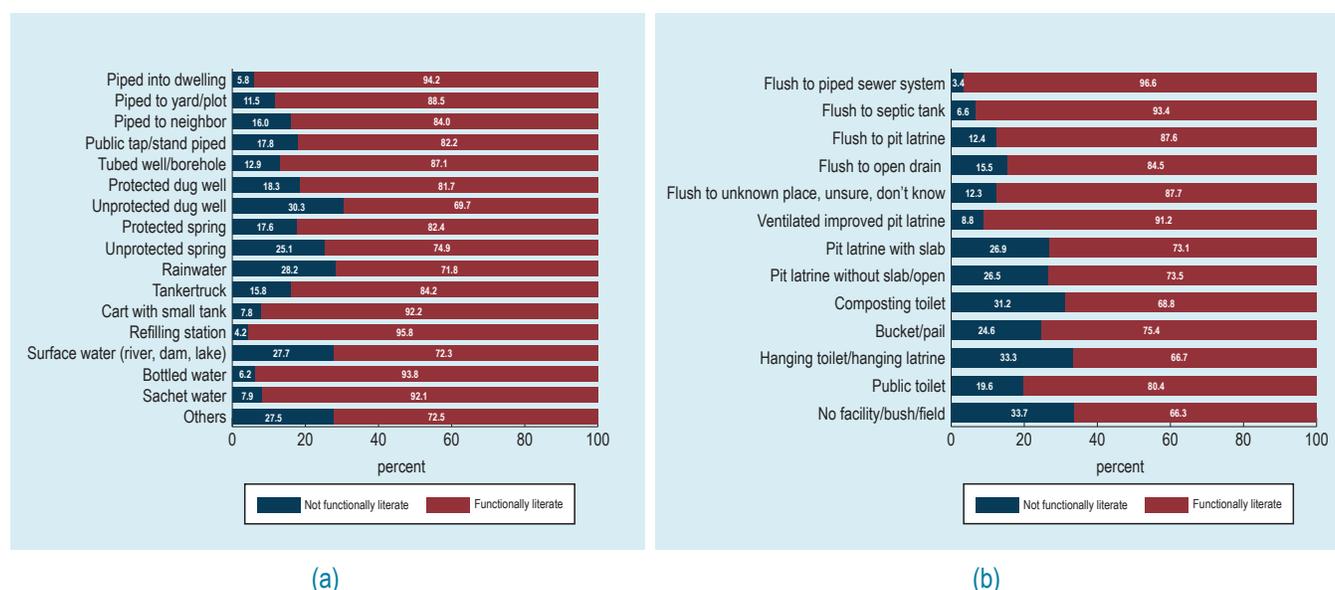
Data from the 2019 FLEMMS also reveal that of the 28.3 million children aged between 5 and 17, 5.5 percent are out of school (Figure 2). In addition,

Table 2. Basic and functional literacy rates (%) among 10–17-year-old children with and without access to cellphone and broadband internet by sex, 2019

Literacy Rate	Access to Cellphone				Access to Broadband Internet			
	With		Without		With		Without	
	Male	Female	Male	Female	Male	Female	Male	Female
Basic	97.2	98.8	91.0	96.8	98.7	99.6	96.3	98.4
Functional	88.7	91.3	76.5	85.5	93.2	96.1	86.5	89.8

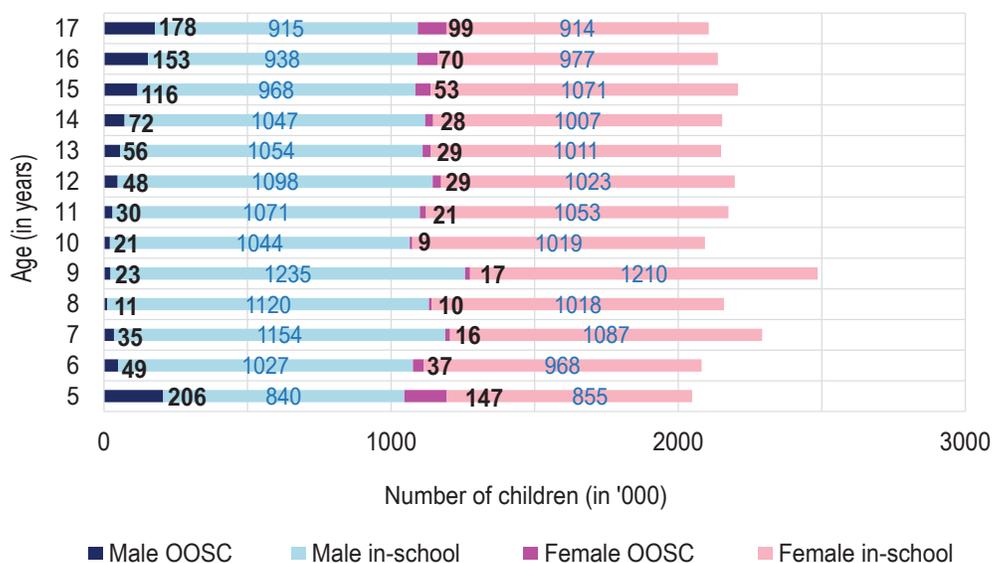
Source: Author's calculations using data from PSA (2019)

Figure 1. Proportion of 10-17-year-old children who are functionally literate and not functionally literate across (a) type of water source and (b) type of sanitation, 2019



Source: Author's calculations using data from PSA (2019)

Figure 2. Number of out-of-school and in-school children (in '000 persons) by age, 2019



OOSC = out-of-school children

Source: Author's calculations using data from PSA (2019)

males outnumber females at a ratio of 2 males for every 1 female OOSC. Males are also less motivated to perform well in school than females, as revealed in national achievement tests (DepED et al. 2012; David et al. 2018) and international assessments like the 2018 Programme for International Student Assessment (World Bank 2021). Among the 1.6 million OOSC in 2019, 353,000 were 5 years old, 279,000 were 6–11 years old, 431,000 were 12–15 years old, and around 500,000 were 16–17 years old.

As observed by David et al. (2018), there are disparities in OOSC rates across regions. The BARMM has the highest OOSC rate (14.3%), while all the other regions

recorded OOSC rates in the single digits: Western Visayas (3.9%) and Northern Mindanao (3.9%) recorded the lowest rates, followed by Ilocos (4.0%) and Cordillera Administrative Region (4.0%). There are also more OOSC in rural than urban areas.

Literacy is also lower among 10–17-year-old OOSC than their in-school counterparts by 17- and 19-percentage points for basic and functional literacy rates, respectively (Table 3).

When asked why children are not in school, the top reasons reported are because (a) kids lack personal

Table 3. Basic and functional literacy rates (%) among 10–17-year-old out-of-school and in-school children by sex, 2019

Literacy Rate	Status			
	Out-of-school Children		In-school Children	
	Male	Female	Male	Female
Basic	79.8	85.5	97.9	99.1
Functional	69.1	74.0	88.9	91.4

Source: Author's calculations using data from PSA (2019)

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interest, (b) kids are too young to be in school, and (c) family income is not sufficient to send children to school. More often, “lack of personal interest” translates to poor academic performance, which is ultimately traced to poor reading skills (David et al. 2015). When children start lagging in reading, even in the early grades, it can be difficult for them to catch up. As a result, these poor readers often become at risk of dropping out.

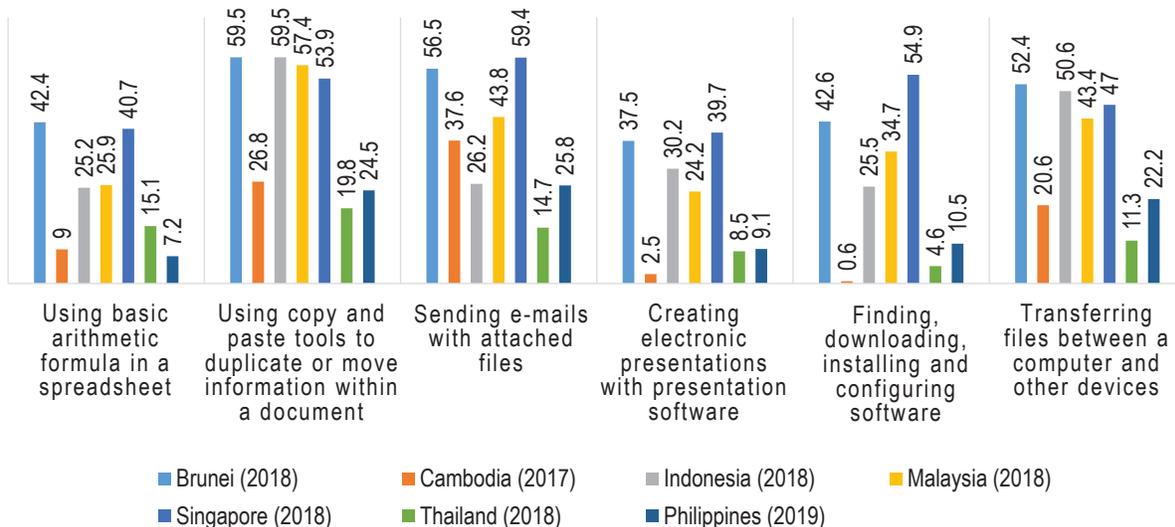
Digital literacy

In recent years, digital skills have become even more important in the workplace and for everyday living. Consequently, the Philippines, just like many countries, have used digital literacy frameworks in basic education (Law et al. 2018). Further, the government formulated the National ICT Competency Standards (NICS) in 2008,

with the Department of Education (DepED) developing three volumes of the NICS for the general population and workforce: NICS-Basic, NICS-Advanced, and NICS-Teachers. Meanwhile, other government agencies produced eight volumes to address their specific needs (Hwa 2016).

Given the importance of digital skills, the indicators for monitoring the Sustainable Development Goals (SDGs) include Indicator 4.4.1, which refers to the “proportion of youth/adults with information and communications technology (ICT) skills by type of skills” (UN 2021a). This indicator, expressed as a percentage, refers to individuals that have undertaken nine computer-related activities (in the last three months preceding the survey). In ASEAN, the Philippines lags in nearly all ICT skills endorsed by the International Telecommunication Union (Figure 3).

Figure 3. Proportion (%) of youths and adults in select ASEAN member states with ICT skills (SDG 4.4.1) by type of skill, 2018-2019



ASEAN = Association of Southeast Asian Nations; ICT = information and communications technology; SDG = Sustainable Development Goal

Notes:

(1) Data for three ICT skills listed in SDG 4.4.1 are not available for the Philippines.

(2) The data cover youth and adults in the Philippines aged 15 years and above.

Sources: UN (2021b); DICT (2019)

Table 4 shows the differences between females and males in digital skills when age is taken into account with sex. Less than half (40%) of Filipinos have at least 1 of the 6 ICT skills measured for SDG Indicator 4.4.1. Therefore, digital skills of Filipinos, especially the very young and the elderly, need considerable improvement.

Policy implications

While data on literacy do not give clear guidance in addressing an issue key to people’s survival and success in an increasingly digital world, they provide a barometer for measuring where the country is and where it has been in relation to where it would like to be. The accuracy of these data, however, is crucial. Using current metrics on basic and functional literacy from FLEMMS are somewhat at variance with metrics on digital skills from the National ICT Household Survey (NICTHS).

However, one would expect digital literacy rates to be lower than basic literacy rates. Likewise, both basic and functional literacy data do not fully capture the continuum of literacy concepts. There are also biases about reported basic literacy, as self-reports depend on how an individual construes reading and writing abilities. Meanwhile, asking respondents to report literacy on others’ behalf can introduce prestige biases, thus, yielding high basic literacy rates.

Conducting diagnostic assessments or tests is a better option. The current functional literacy measurements in FLEMMS can benefit from international assessments on literacy, such as the Organisation for Economic

Co-operation and Development’s Programme for the International Assessment of Adult Competencies, World Bank’s Skills Toward Employability and Productivity Measurement Program, UNESCO’s Literacy Assessment and Monitoring Program, and the multicountry cooperative effort Adult Literacy and Life Skills Survey. Digital skills measurement in the NICTHS could also be integrated with functional literacy assessment in the FLEMMS, especially since basic functional digital skills are now life skills—a prerequisite for higher-level specialized digital skills needed in the workplace.

Likewise, better policies are needed to vigorously address persisting disparities in literacy and school participation between boys and girls and across regions.

Addressing gender disparities should involve (a) improving school readiness of boys, (b) using different learning teachings for boys and girls, (c) incorporating more activity-based learning tools, (d) communicating higher academic expectations to boys, and (e) adopting affirmative action policies to hire more male teachers, at least for a few years, and providing more teaching scholarships to males.

To tackle the lagging literacy in BARMM, the DepED should partner with the BARMM Ministry of Education to develop a catch-up strategy for children in the region. In addition, strategies to improve reading skills among the young and encourage continuing education programs among adults must be initiated to address lagging literacy in rural communities.

Table 4. Proportion (%) of individuals that have at least one of six ICT skills identified for measuring SDG indicator 4.4.1

Sex	Age Group				Total
	10–14	15–24	25–64	65 and above	
Male	16.1	40.7	45.2	30.8	37.8
Female	30.4	52.3	37.4	13.4	41.4
Total	23.1	46.7	40.3	18.0	39.8

Source: DICT (2019)



“The Department of Education should work hand in hand with stakeholders through a whole-of-society approach to improve Filipinos’ literacy, numeracy, and digital competencies.”

Photo from Department of Education (<https://www.deped.gov.ph>)

Functional (and digital) literacy could readily decline with the likely increase of OOSC due to the pandemic. Perceived risks and financial constraints affect the demand for education, increasing the likelihood of more children dropping out of school. Likewise, with the absence of in-person classes, the quality of learning and literacy of even those in school is not assured.

Finally, literacy is traced back to poverty and other multiple interacting barriers to realizing children’s full learning potential. Therefore, enhancing basic, functional, and digital literacy lies in long-term poverty reduction, including improving children’s nutrition. The DepED should work hand in hand with stakeholders through a whole-of-society approach to improve Filipinos’ literacy, numeracy, and digital competencies.

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The author is a senior research fellow at PIDS. The views expressed are those of the authors and do not necessarily reflect those of the PIDS or any of the study's sponsors. The author thanks the PSA for providing the 2019 FLEMMS microdata. He is also grateful to Mika Muñoz of PIDS for the research assistance.