

# Direct assessments of adult skills and competencies



**Numeracy and literacy** in the adult population are key skills that transform lives, promote social inclusion and contribute to sustainable societies. Without these skills, adults are at risk of disadvantage. Furthermore, innovation will not as easily translate into a growth in well-being, while individuals and countries will be less prosperous. Getting the best returns on investment in the development of adult skills and competencies requires comprehensive data to assess what people know, what they do with what they know, and the extent to which they are equipping themselves with the skills they need to sustain themselves in the twenty-first century.

While collective efforts have led to continuous progress in increasing literacy rates, global data on literacy, based on conventional proxy indicators, is not sufficient to offer a comprehensive picture of the literacy landscape. To give an example, the global literacy rate for adults aged 15 years and older was 86% in 2018, a figure that is almost unchanged since 2016. However, in absolute terms, the number of non-literate youth and adults increased by 23 million to 773 million between 2016 and 2018 (UNESCO, 2020) – a stark reminder of the task ahead if the international community is to deliver on its education promises by 2030.

Currently, only 13% of countries have data on literacy and numeracy skills based on direct measurements (Subosa and West, 2018). Literacy estimates are mainly based on a self-reported measure of reading, which distinguishes between those who cannot read or write at all and those who have some skills, and usually does not measure numeracy competencies. In contrast, direct measures of literacy and numeracy determine how well individuals perform the key skills society needs and

produce a detailed analysis of the distribution of skills in the adult population.

Moreover, direct measures of the skill levels of adults in literacy and numeracy help to:

- determine the sub-groups that are not equipped with sufficient skills and are more likely to be left behind. For example, in Germany, the second Level One Survey, conducted in 2018, assessed the reading and writing skills of the German-speaking adult population and gathered detailed data about the distribution of three lower levels of literacy proficiency, taking into account a series of socio-economic variables (gender, age, mother tongue, educational qualification, among others) (Grotlüschen et al., 2019). With this information, the government can implement targeted basic skills training opportunities for the most fragile sub-populations in appropriate settings, such as in the workplace;
- examine the impact of skills on a range of economic and social outcomes. In countries participating in PIAAC,<sup>1</sup> the survey results are used to determine the influence of skills proficiencies on professional wages, likelihood of employment and health (OECD, 2019);
- evaluate the performance of education and adult training, work practices and social policies in developing the skills that are required to create and promote knowledge-based societies. Kenya, for instance, designed and carried out the Kenya National Adult Literacy Survey (KNALS) in 2006 to assist in the development of indicators used to assess progress on the implementation of education-related programmes (KNBS, 2007);

<sup>1</sup>Over 40 countries take part in the Organisation for Economic Co-operation and Development (OECD) Survey of Adult Skills, which is part of the organization's Programme for the International Assessment of Adult Competencies (PIAAC).

- identify the policy levers that can reduce inequalities and deficits in key competencies. In Bangladesh, data from the national Literacy Assessment Survey (LAS) is used to inform the country's strategy to improve literacy of youth and adults through high-quality early education and lifelong learning (UNESCO, 2010).

### **The challenge of conducting direct assessments in low- and middle-income countries**

Direct assessments produce data that policy-makers could use for policy development (UIS, 2018), but past experiences in some low middle income countries suggest that potential challenges could discourage them from investing in direct assessments (UIS, 2017).

One of the primary challenges is cost (Guadalupe et al., 2009). Direct assessments are more expensive to conduct than usual household surveys. To identify accurately the lack of skills in certain sub-populations, for instance, data need to be collected widely, even in rural and remote areas. Data collection in fragile states is even more expensive because of the lack of basic infrastructure and security requirements. Moreover, for direct assessments, which are also designed to collect data on the literacy environment and individual literacy experience, the survey is longer than it is for usual household surveys and should be conducted by experienced facilitators, whose training adds to the running costs.

Developing assessments and surveys that are comprehensive yet transparent is another challenge, particularly when producing test items that will be adapted to country contexts (Fransman, 2005). In some cultural environments, respondents may interpret and answer test questions in a way that could produce culturally biased results or counter-intuitive outcomes (Maddox et al., 2015). A strong infrastructure that meets generally accepted scientific standards is therefore needed to support and conduct data collection and analysis in the field (UIS, 2017). Broad-based tests that measure skills across cultures and social settings can be developed with appropriate investment and capacity-building efforts.

A final challenge is in deciding on the number of languages in which to test the adult population (Heugh et al., 2017). In some countries, in addition to several national languages, many local languages are spoken. Assessing skills in all these languages adds to the complexity and the cost of the survey. Adequate sampling design is needed to establish stable statistical properties for each tested language and to minimize administrative costs by targeting populations who speak in and use the language of assessment. Administering a multilingual survey also requires multilingual interviewers and a questionnaire design that is easily adaptable to the language spoken and used by household members (Koch, 2018).

### **Policy recommendations**

Accurate data on literacy and numeracy is key for a country to guide its policies and programmes to monitor progress towards national targets. Direct assessment is the only way to obtain a full skill proficiency distribution of the adult population, to track the progress of sub-groups over time, and to provide sufficient information to develop specific policies. Based on international experience and the latest research findings, the following recommendations are offered to guide policy-makers in implementing direct assessments in lieu of proxy surveys.

#### **Integrate direct assessment surveys of adult skills in relevant national strategies and policies:**

1. Set up a technical taskforce to advocate for national-level direct assessments of adult skills and competencies and to lobby relevant national and international agencies for technical and financial support. These direct assessments should then be used to develop a national literacy strategy that operates across sectors, inclusive of the higher education and vocational sectors, to inform policy-making, including for the setting up of formal and non-formal education centres and the creation of adult literacy programmes.
2. Prepare an implementation plan and budget to raise funds. If the national literacy budget does not allow the conducting of national-level direct assessments, a proposal with an estimated budget needs to be developed to raise funds from donors.

#### **Evaluate existing national infrastructures and capacities for conducting direct assessments, and, if necessary, build and strengthen them:**

1. Set up an in-country expert committee to develop an implementation plan and budget. Given the complexity of national-level direct assessments, the committee should comprise literacy and assessment experts and data users. Also consider assembling a cross-sectoral team built on a lifelong learning approach to integrate direct-assessment outcomes from early childhood to adulthood in national policy development. Good communication among committee members is essential to ensure success in the generation of relevant, quality and reliable data on adult skills. Once the committee is formed and the terms of reference agreed, some initial steps would include (UIS, 2009):
  - Define the policy questions the survey should answer and identify population groups that are of most interest, such as rural youth, women and at-risk youth in urban areas.

- Decide on the language of assessment. Be aware that the decision to assess one or multiple languages has political, financial and operational implications.
- Identify potential (practical) issues and/or potential gaps in implementation and develop appropriate strategies. Prepare alternatives for worst-case scenarios with rigorous quality assurance to ensure data quality.
- Identify potential partners in field implementation. If household surveys have already been conducted in the country, negotiate with the implementing organization to incorporate direct assessments.

2. Identify existing direct assessments and determine testing capacities and experience. If capacity in conducting national household surveys and school-based assessments is available, identify which agencies and technical experts to involve in the implementation of adult direct assessments. If necessary, review the available technical documents of existing cross-national programmes or study success stories from countries that have implemented adult literacy surveys in the region to draw lessons.
3. If the country has no experience in direct assessments, organize a team of technical experts and provide them with relevant training in adult skills assessment. In addition, consider participating in cross-national assessment programmes, which could offer the use of existing instruments and support from international partners. For example, in 2003, Mongolia joined the UNESCO Institute for Statistics' (UIS) Literacy Assessment and Monitoring Programme (LAMP), which was developed to gather quality data on literacy through new national household surveys. Based on its experience, the country was able to provide support to Viet Nam in training its own LAMP team and fielding the survey (UIS, 2009, p. 26).

### **Ensure data are comprehensive and of high quality:**

In order to be suitable for use in policy development, data need to be accurate and easy to understand. To collect such robust data, the development of the assessment survey should be divided into three stages (UIS, 2019):

#### **1. Conceptual framework**

The conceptual framework is a theoretical framework that describes the cognitive process in learning a skill and helps direct the development of test items. For countries with a national adult literacy programme, the national literacy curriculum could be used as a basis for the conceptual framework. If a country does not have a national

adult literacy programme, the conceptual framework from cross-national programmes can be used as a reference.

#### **2. Implementation framework**

An implementation framework is a set of processes to help collect and analyse data in direct assessments. It covers item development, population sampling, administration, quality assurance and data analyses. Use national expertise in household surveys and school-based assessments to develop instruments, guidelines and data collection plans to administer adult direct skills assessment. Given that quality assurance and analysis, especially psychometric analysis, is different from household surveys, seek inspiration from cross-national programmes.

#### **3. Reporting framework**

The reporting framework helps organize the gathered data and put it into easy-to-understand performance descriptors, i.e. 'basic', 'proficient' or 'advanced'. The performance descriptors help data users understand what those at a certain performance level can do. As developing performance descriptions is new to many, seek support from cross-national assessment programmes and the assessments community.

### **Use the data from direct assessments to make changes locally:**

1. Given the basic human right to education and its implications for society, the outcomes of direct assessments should be used to identify the emerging demand for foundational skills to contribute to personal enrichment, sustainable economic development and improved civic participation. In this regard, develop relevant policies and set up new learning opportunities to address learning and skill needs and the demands of those groups that are left behind.
2. Make effective use of data to improve adult literacy policies and programmes. Use the outcomes of direct assessments to identify sub-populations that are most at risk and the type of skills that are demanded. With proper use of direct-assessment outcomes in the national literacy strategy, the data from literacy surveys could be used to develop or improve the teaching and learning modules in formal or non-formal adult literacy programmes.
3. If a country's direct assessments are well designed and executed, the results can be used for monitoring and reporting on Sustainable Development Goal (SDG) indicator 4.6.1, which measures the 'proportion of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex' (UN, 2018).

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