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Education for people and planet: Creating sustainable futures for all

Formal and non-formal adult education opportunities for literacy and numeracy, and other skills for acquisition and retention:

A 29-country review of the concepts, processes and structures of literacy provision and reporting

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Abstract¹

The Sustainable Development Goals (SDGs) articulate a universal, holistic and ambitious global development agenda, setting out 17 goals, and 169 related targets. Among the SDGs there is a goal on Education and Lifelong Learning, which, through target 4.6, calls on countries to “*ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy*”.

Securing literacy and numeracy depends largely on the principles, strategies and actions underpinned by a contemporary understanding of literacy not as a simple dichotomy of ‘literate’ versus ‘illiterate,’ but as a continuum of proficiency levels. In addition, it depends on organized and systemic adult learning and education opportunities at local level, and a sensitivity to the environmental or contextual factors that adults encounter in their lifelong learning paths.

By critically reviewing existing formal and non-formal adult education opportunities in literacy, numeracy and other skills for acquisition and retention, the Global Education Monitoring Report and the International Council for Adult Education seek to explore the possible ways to construct a global monitoring and follow-up framework for the SDGs’ target 4.6. This work was done by analyzing experts’ submissions from 29 countries from around the world, and reviewing existing literature on literacy and numeracy and international surveys.

This review reveals the complexity and multifaceted nature of adult education and literacy. The main challenges that need to be addressed to develop a global monitoring and follow-up framework for literacy include: overcoming conceptual confusions around adult education and adult literacy at national and international level; the reformulation of existing literacy targets to make them measurable and properly financed; additional baseline data and research evidence at local level is still needed, and; more coherence and coordination among national and international monitoring frameworks for global comparability.

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Introduction

The United Nations' Sustainable Development Goals (SDGs) articulate a universal, holistic and ambitious global development agenda which are outlined under seventeen socio-economic thematic goals. The fourth goal, "Quality Education", makes the commitment to "ensure inclusive and quality education for and promote lifelong learning." A key target in this goal on education is the enhancement of adult literacy: *"By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy."* (Target 4.6, United Nations, 2016)

In an attempt to address this need for a global response to the challenges and opportunities for adult literacy, a meta-analysis, based on a set of 29 country profiles of formal and non-formal adult education opportunities in literacy, numeracy and other skills for acquisition and retention from all regions, was commissioned to the International Council of Adult Education (ICAE) by the Global Education Monitoring Report (GEMR). The selection of the countries was done by a combination of cluster and convenience sampling. There is a regional balance: all continents are represented, although not with the same number of countries; and various countries within the region are represented, although this is inconsequential in terms of clustering. The researchers from GEMR and ICAE prepared the methodological framework. ICAE coordinated with its members and researchers from the individual countries in the preparation of the 29 country profiles (Table 1)² and conducted the review, analysis and comparison of these profiles. Along with the information from the country profiles, a desk study of existing literature, international surveys and studies was conducted. Conceptual and methodological issues and disputes are also briefly discussed in this paper.

² ICAE would like to express the gratitude to all the authors who contributed to this study for their efforts and valuable inputs.

Table 1: Countries which provided profiles of formal and non-formal adult education opportunities in literacy, numeracy and other skills for acquisition and retention

1. Armenia	7. England	13. Jamaica	19. New Zealand	25. Sudan
2. Australia	8. France	14. Kyrgyzstan	20. Paraguay	26. Uganda
3. Burkina Faso	9. Germany	15. South Korea	21. Philippines	27. Uruguay
4. Cambodia	10. Greece	16. Mexico	22. Serbia	28. United States
5. Colombia	11. India	17. Mozambique	23. South Africa	29. Zambia
6. Egypt	12. Israel	18. Nepal	24. Spain	

The main data obtained from the country profiles include basic descriptive information about the current problems of literacy and numeracy (concepts, policy, provision etc.). This data is synthesized, analysed and compared in this survey. Special attention is also given to the ways adult education, literacy and numeracy are monitored at national and global levels.

Based on a literature review and recommendations obtained from the country profiles, challenges and suggestions for the development of a future framework for the monitoring of literacy and numeracy are outlined.

Definition of major terms, presentation of historical development and existing approaches to understanding adult education and non-formal learning

Although the main focus of this review is an international review of literacy and numeracy provision and monitoring, such a task will, inevitably, involve some consideration of the place of such provision within the broader adult education landscape in global, regional and local contexts. As such, it may be

important, firstly, to provide some sense of the development and shifting understandings of adult education and its relationship, in particular, with literacy and numeracy learning.

The history of adult education is hard to disentangle from the history of the discussions and disagreements about what it is, what it comprises and what functions does it fulfill.

One of the traditional definitions frames adult education as “non-vocational education for persons aged 18 and over” (Peters, 1966) which happens outside of the school system and exhibits characteristics of voluntarism and local character. This rather reductionist notion of adult education can be found in many definitions even years after this first appeared.

In contrast, UNESCO has paid special attention to a more comprehensive and broad definition. For instance, the one adopted in the General Assembly (GA) in Nairobi 1976 defines adult education as: “the entire body of organized educational processes, whatever the content, level and method, whether formal or otherwise”, including various roles, functions and levels (UNESCO, 1976, p.2).

This understanding of adult education was valid for the next 30 years. The CONFINTEA V in Hamburg devised a similarly broad notion, but introduced the term *learning* in order to overcome the limits of institutional learning and to unfold the full potential of learning outside of the formal education system: Adult education denotes the entire body of ongoing learning processes, formal or otherwise, whereby people regarded as adults by the society to which they belong develop their abilities, enrich their knowledge, and improve their technical or professional qualifications or turn them in a new direction to meet their own needs and those of their society” (UNESCO, 1997, par.3).

From the nineteen seventies, the discussion about the terms and concepts has been influenced by new terms – *lifelong education* (Faure et al., 1972; Delors, 1996), *éducation permanente* (Lengrand, 1979), *recurrent education* (OECD, 1973) and *lifelong learning*, whereby the last one has almost replaced *adult education*, especially in Europe.

Terminological confusion peaked at the CONFINTEA VI in Belem 2009, in which adult learning was defined in exactly the same way as in the Hamburg Declaration in 1997. Its famous definition of adult education replaced, without explanation, the term *adult education* with the phrase *adult learning*, while everything else remained almost identical (see UNESCO, 2009). UNESCO adopts both phrases, and even in the Belém Framework for Action and all subsequent documents, they are used in parallel as the self-explanatory arrangement: *adult learning and education* (ALE). There is no attempt to explain precisely how and why the phrase was developed and how it differs from the previous one. In subsequent documents this new concept of ALE is described through three key domains: literacy and basic skills; continuing training and professional development; and education and learning opportunities for active citizenship which is also known as community, popular or liberal education (UNESCO, 2015).

When lifelong learning was accepted as the “master concept” (sic) that should shape educational systems (Faure et al, 1972), a tripartite categorization of learning systems was widely accepted: formal, non-formal and informal learning were posited as equally valuable aspects of the overall lifelong learning process. Formal learning takes place in education and training institutions and generally leads to recognized diplomas and qualifications. Non-formal learning takes place alongside the mainstream systems of education and training and does not typically lead to formalized certificates. Informal learning is a natural accompaniment to everyday life – learning that happens outside of the traditional educational settings – at work, in the family, in the community, during travelling.³ Unfortunately, the criteria for such division of learning has not become any clearer than those introduced in the nineteen seventies (Coombs, 1968; Coombs and Ahmed 1974). Nevertheless, we have attempted to provide, in the annex to this document, a sense of the characteristics of activities that are generally used to distinguish between formal and non-formal learning by the major international monitoring bodies.

Within both adult education and lifelong learning, literacy plays an important role. UNESCO’s is probably the most commonly used definition which states that literacy is:

³ See more in the Annex

The ability to read and write, to identify, understand, interpret, create, communicate and compute, using printed and written materials, as well as the ability to solve problems in an increasingly technological and information-rich environment. Literacy is an essential means of building people's knowledge, skills and competencies to cope with the evolving challenges and complexities of life, culture, economy and society (UNESCO, 2015).

The older definitions of 'reading, writing and calculating' was added later, but it remained valid within the concept of *basic* or *elementary literacy*. The term *functional literacy* was initially defined for UNESCO by William S. Gray (1956) and stresses the acquisition of appropriate verbal, cognitive, and computational skills to accomplish practical ends in culturally specific settings.

Nowadays literacy is seen as much more than the exclusive ability to read and write. However, this often-used qualification ("much more") has been understood and defined in many different ways. The international policy community, led by UNESCO, has moved from interpretations of literacy and illiteracy as autonomous skills to an emphasis on literacy as something that is both functional, yet, by incorporating Freirean principles, having the capacity for social change. More recently, these interpretations have embraced the notions of: multiple literacies; literacy as a continuum; and literate environments and societies" (EFA Global Monitoring Report Team, 2005). But still, the commonly used definition remains "iterate/Illiterate. The term refers to a person who can/cannot read and write with understanding a simple statement related to his/her everyday life." (UNESCO's 1958 definition and the EFA Global Monitoring Report 2006)

Numeracy is more often measured than thoroughly analysed and defined as a concept within adult education. In the absence of sound theoretical grounding, numeracy is usually understood through the description of skills it comprises. For example, the Adult Literacy and Life Skills (ALL) survey defines numeracy as "the knowledge and skills required to manage mathematical demands of diverse situations" (IES, 2003). Because numeracy is less conceptualized, there is less research and literature about the link between numeracy and lifelong learning. Not only is this an imbalance within the literature on literacy, but it also seems very strange in the context of the growing importance of STEM and the role given to technical education. Numeracy, in fact, figures strongly across four of the SDG targets and, is of course, central to learning in ICT and problem-solving in technology-rich environments. Bearing in mind that occupations in

STEM-related careers are some of the fastest growing and best paid of the twenty-first century, and, what's more, often having the greatest potential for job growth, the gap in the literature on numeracy seems to be even more perplexing.

Although literacy and numeracy can be viewed within the contexts of formal and non-formal education and learning, it may also be useful to consider them in a broader social and economic context which contain a multitude of factors that can influence positively or negatively, the acquisition and retention of literacy and numeracy. These factors constitute educational frameworks and opportunities – or the broader *learning environment*. UIS defines the learning environment as the complete physical, social and pedagogical context in which learning is intended to occur. The term most often refers to school classrooms but may include any designated place of learning such as science laboratories, distance learning contexts, libraries, tutoring centres, teachers' lounges, gymnasiums and non-formal learning spaces (UIS, 2012, 12). However, here are plenty of broader factors that can influence education and literacy, from, for instance, quantitative aspects like the number of computers and internet users in the country to more qualitative dimensions such as learning traditions and learning cultures.

Literature review: a comparative, cross-country survey of the literature and studies investigating the impact of non-formal learning (NFL) and adult education on literacy and numeracy acquisition and retention

It may be important to state at the outset of this literature review that methodological decisions and practices of surveys within education and literacy have a bearing on the definitions of education, adult education and literacy that arise from these processes.

International bodies such as UNESCO, OECD and the European Union are most influential in determining, not only, international, but also national and regional, definitions relating to adult education and literacy. In terms of the main concepts, Duke says that: “[a]lthough they [the concepts] have grown up mainly in the wealthy nations they are becoming increasingly important globally. Fittingly, therefore, UNESCO as well as OECD and the Council of Europe has contributed to their formulation.” (1999, 7).

Furthermore, these foundational adult education concepts have influenced, by soft power or more binding instruments, many regional or national literacy approaches, initiatives, surveys and projects.

UNESCO's framing of adult education is very broad, encompassing, as it does, various fields and topics. In the European Union, which has moved to adopt the concept of lifelong learning⁴, the focus has shifted to adult education linked to the labour market, vocational education and training and on key competences needed on the labour market (European Commission/EACEA/Eurydice, 2015). Finally, the OECD stresses the economic rationale for adult education, with non-formal learning posited as mainly enterprise-based training and public labour market training (OECD, 2008).⁵

All these concepts of adult education see literacy as a fundamental component of lifelong learning – a necessary precondition and starting point for learning. Yet, despite the centrality of literacy to education, it does not always appear as an integral part of the policy of lifelong learning. While in the international context, literacy has been located in the 'outsider' position, it has never been denied its importance and urgent character. On the other hand, by being treated separately, the approach to literacy was not innovated and improved upon, and continued to be reduced to an elementary and dichotomously-defined skillset.

UNESCO's *Education for All Global Monitoring Report 2006* provides a detailed overview of approaches, definitions and recommendations (EFA GMR, 2005) for literacy. It is quite obvious that unlike other parts of adult education, literacy policy and provision remained 'resistant' to recommendations of researchers and scholars. They have suggested that "a useful concept would be that of multiple literacies". However, not much progress has been made in this regard.– The global survey differentiated between prose, document and quantitative literacy, while digital literacy is now often added because of increased exposure of adult learners to technological environments. Yet, many other types of literacy are not mentioned or

⁴ As formal, non-formal and informal - developed by CEDEFOP (CEDEFOP, 2007; Commission of the European Communities, 2001) - Centre Européen pour le Développement de la Formation Professionnelle / The European Centre for the Development of Vocational Training

⁵ More details in the Annex

taken into account - i.e. health literacy or financial literacy. Furthermore, multiple literacies is still more an ideal concept than a reality in terms of delivery and policy (GMR, 2006) ⁶

The Adult Literacy and Life Skills Survey (ALL) ⁷ and the International Adult Literacy Survey (IALS)⁸ served as the predecessors for PIAAC (The Programme for International Assessment of Adult Competences). PIAAC, the survey of adult skills managed by the OECD, defines literacy as the ability to understand, evaluate, use and engage with written texts to participate in society, achieve one's goals, and develop one's knowledge and potential (OECD, 2016). In the survey, the term "literacy" refers to the reading of written texts; it does not involve either the comprehension or production of spoken language or the production of text (writing) (OECD, 2013). However, PIAAC, is the most relevant international survey for many countries, and its assessments of literacy in the information age measures literacy, numeracy and problem solving in technology-rich environments.

UNESCO's LAMP (Literacy Assessment and Monitoring Programme) had a significant impact on national and regional assessment programmes. It has the ambition to measure literacy skills as a continuum (three levels) and pre-reading skills. LAMP is, "however, a statistical approach, no more and no less[...] – it cannot provide a 'complete' picture of literacy; the very nature of knowledge precludes this". (UNESCO – UIS, 2009a)

For measuring and monitoring literacy, many countries choose one of the two easiest ways:

- Collection of census data. This method, which simply asks respondents if they are literate, is identified as the main method for monitoring literacy on a national level in the majority of the country profiles. Almost every country uses this approach, but its limitations motivated individual countries to use additional approaches (i.e. research, national surveys) to obtain more reliable data.

⁶ A series of useful insights were offered at UNESCO's Experts' Meeting in 2005, pointing out several important aspects related to the assessment of literacy (how is literacy used, and not only the level of literacy skills; about the importance to see the use of literacy in the context, especially in the communication context; about many kinds of literacy) – (UNESCO, 2005).

⁷ ALL defined literacy "as the knowledge and skills needed to understand and use information from text and other written formats.... On a pilot basis, ALL also measured adults' problem-solving skills and gathered information on their familiarity with information and communication technologies" (IES, 2003).

⁸ In IALS, illiteracy consists of the knowledge and skills needed to understand and use information from texts (prose literacy), to locate and use information contained in various formats (document literacy), to apply arithmetic operations (quantitative literacy) (OECD, 2000).

- Correlating literacy standards to years of formal schooling (i.e. three, four or five years of elementary school; completed elementary school or basic education). For example, “in 1947, the US Bureau of the Census began defining literacy quantitatively - describing anyone with less than five years' schooling as functionally illiterate. With the passing of the Adult Education Act of 1966, 12 years of education became the literacy standard in the US“ (McArthur, 1998).

From a comparative view, the approaches and understanding of the basic concepts regarding literacy are quite different. This is particularly evident in the conceptual differences between the ‘North’ and ‘South’. While Europe focuses on the ‘skills aspect’ of lifelong learning with a stress on vocational education and training and the ways to bridge formal and non-formal adult learning, adult education, in many other regions, remains connected to social movements, and is often the main tool in extending and implementing the citizen's right to education in different settings. Known as *popular education*, *community education*, *citizenship education* and similar, it has a strong political dimension, often rooted in Paulo Freire’s ideas, with the clear perspective of social change and transformative learning.⁹

An attempt to conduct a literacy survey which took into account specific regional aspects was the study *The Promotion of Literacy in South Africa: Numbers and Distribution of Literate Black Adults*. Ellis’ point about some of the challenges in obtaining reliable data on a large scale is worth noting:

Literacy trends among Black adults in the Republic of South Africa and in some Black states in southern Africa were determined from data obtained from population census reports from 1946 to 1970. Problems concerning the determination of literacy statistics included differing definitions of literacy and data that were subjective, difficult to compare, and unreliable. (Ellis, 1982).

The obstacle to achieving common ways of measuring literacy is obviously deeply rooted in different concepts and paradigms. For many nations in South Africa, adult education was for a long time recognized as a necessary and essential part of the liberation struggle (Johnson-Bailey and D. Drake-Clark, 2010, 250) and an important tool in the process of decolonisation. Similarly, for many countries in Latin

⁹ A good overview of regional approaches and how they are reflected in research can be found in UNESCO’s publication “*World Trends in Adult Education Research* (Mauch, 1999).

America the only ‘true’ meaning of adult education is popular education – a process which is intended to foster critical awareness of socio-economic and cultural reality, designed by the initiatives on the grassroots level and in the spirit of social justice, human and civic rights. Since popular education is mostly non-formal in character, it “questions the system of examination in the traditional mode of education, which increasingly serves to reproduce social injustice and its legitimization” (Tøsse, 2011, 123).

Latin America has vast experience in an adult education and literacy policy and practice that is rooted in a Freirean approach. Two initiatives, in particular, played an important role: *Proyecto Principal de Educación en América Latina y el Caribe* (1980-2000) and REDALF (Red de Alfabetización – Literacy Network). The latter was created in 1985. The EFA framework had a certain impact. Its regional expression, known as PRELAC, was approved by Ministers of Education in 2002 as a way forward to meet the Dakar goals. The Ibero-American Plan for Literacy and Basic Education of Youth and Adults (2007-2015) was also important.¹⁰

There is also a growingly influential initiative developed by the Cuban Latin American and Caribbean Pedagogical Institute (Instituto Pedagógico Latinoamericano y Caribeño-IPLAC), known worldwide by the *Yo sí Puedo* (Yes, I can) literacy methodology. The *Yo sí Puedo* initiative began in 2003 and has been adopted by 12 Latin American countries ... It is based on a methodology that creates correspondence between letters and numbers and uses mass means of communication, such as radio and television, as key learning vehicles (Croso, Vóvio and Masagão, 2008).

In both Africa and Asia, the receptivity of the literacy assessment depends very much on language, and is higher in ‘unofficial’ literacies and languages, “and in Arabic in particular” (Pandey, 2005, 33). Although experts used to prefer the mother tongue as the language for literacy provision, in many countries “access to the economic market place drives motivation for particular (often colonial) languages” (Pandey, 2005, 34).

¹⁰ Approved in November 2006 during the XVI Ibero-American Summit in Montevideo.

Similar lists of the key elements of adult literacy were developed in *Comparative framework of the International Adult Literacy Benchmarks and the Ibero-American Plan for Literacy and Adult Education*.

A review of Asian countries provides a valuable and variety of insights into the contextual nature of literacy and innovative approaches to research: family/intergenerational literacy programs (Bangladesh); the emphasis on learning environment and post-literacy programmes for the retention of literacy (India); literacy within the programmes of non-formal community education (Pakistan); participatory research (South and South-East Asia.)¹¹ As for assessment and surveys, these countries rely either on data obtained in national census processes or on international programmes and standards. Very often, literacy data is taken from the UN's *Human development reports* or from OECD's economic surveys.¹²

In Australia some efforts for the national assessment of competencies was done in the mid-eighties through the *Quality of Education Review Committee* which developed 'key area of competencies' while New Zealand created the 'essential skills' list. Both of these developments covered many of what is called 'literacy and numeracy' in other regions. Yet, IALS, ALL and PISA are still considered more important, since "without the development of this different programme, lifelong learning will continue to be fragmented, unstable, intermittent and unfocused" in many Asia-Pacific countries. (Pefianco, Curtis and Keeves, 2003, 312) An attempt to bring together the diversity of the traditions and understandings of adult education and to review, measure and analyse them through a common lense was done within the Millenium Development Goals (MDG) and the Education for All (EFA) agenda. The regional differences, most notably North – South, were criticized:

Accepting dual standards and a dual education agenda such as the one that is currently being shaped – lifelong learning actively adopted in the North while basic education and completion of primary education are promoted in the South – means consolidating and deepening the gap between North and South. (Torres, 2004, 15).

Surveys like PISA and PIAAC try to ignore regional differences and impose quasi-neutral, unbiased standards for measuring adult literacy. However, it is precisely by ignoring the context and local meaning

¹¹ More in Inayatullah, 2003, *Adult Literacy in the Asia-Pacific Region*.

¹² In its report from 2013, UIS gives a comprehensive analysis of the literacy data from 150 countries, explaining that "Literacy rates for 2010 and 2015 are based on a reading test in a Demographic and Health Survey (DHS), literacy rates for other years are based on self- or household declaration of literacy skills in a national survey or census" (UIS, 2013)

of adult education, these studies ignore the deepest meaning of adult education and its main function in the regions. The fact that literacy learning happens mostly in non-formal contexts and is, consequently, difficult to measure with traditional quantitative approaches, doesn't make it less important.

A comparison of PIAAC and GRALE (UNESCO report on Adult Learning and Education), reveals an obvious difference in approaches to measuring literacy. PIAAC is rooted in human capital theory, supporting ranking and competition; whereas GRALE moves towards literacy as a continuum which adults engage in throughout and across all aspects of their life. As Dang puts it, "GRALE II suggests 'rethinking literacy' and PIAAC offers 'skills outlook' for the 21st century." (2003, 1).

Introduction, presentation and analysis of the country profiles

The renewed mandate of UNESCO's *Global Education Monitoring (GEM)* report, calls on countries to monitor the progress of SDG target 4.6: "*By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy*". The GEM Report and the International Council for Adult Education (ICAE) analysed 29 countries profiles from around the world on formal and non-formal opportunities that directly bear on literacy and numeracy acquisition.

The specific content of these studies included: historical development; current definitions; literature environment; current provision; monitoring; and challenges and recommendations for monitoring of formal and non-formal learning opportunities for literacy and numeracy.

The country profiles were formulated, mainly through desk research, by academics and experts from the field in the following countries: Armenia, Australia, Burkina Faso, Cambodia, Colombia, Egypt, England, France, Germany, Greece, India, Israel, Jamaica, Kyrgyzstan, South Korea, Mexico, Mozambique, Nepal, New Zealand, Paraguay, Philippines, Serbia, South Africa, Spain, Sudan, Uganda, Uruguay, United States, Zambia.

The literacy and adult learning context varies greatly across these countries - even within regions and countries with similar characteristic in terms of demographics and economy. Likewise, access to verifiable sources, information and data differs from country to country, making it difficult to produce comparable

research. Nevertheless, the findings allow us to see overall trends in policymaking, practices and the monitoring of formal and non-formal learning opportunities for youth and adults.

Literacy definitions and literacy/numeracy/basic skills addressed in country policies

Internationally, the understandings of literacy have developed considerably since the second half of the 20th century. The definition of literacy has shifted from a narrow set of basic skills – mostly reading, writing and counting - to a broader understanding that sees literacy as a right and as an active process of learning. This new comprehension of literacy involves a social awareness and critical reflection which can empower individuals and groups to promote social change. However, this broader and more critical view of literacy is not reflected evenly across policy framings. Current official definitions in legal and policy frameworks still vary from the most basic ones to a more comprehensive concept of literacy that sets the basis of lifelong learning policies nationally.

What follows are some nationally-delineated definitions and understandings of literacy skills:

Greece

The human ability to read critically, to communicate with the written word and to use logical-mathematical methods in order to gather information, make decisions, to express opinions and to resolve problems related to daily activities as a member of a family, as a worker and as a citizen.

Jamaica

A particular capacity and mode of behaviour, the ability to understand and employ printed information in daily activities, at home, at work and in the community - to achieve one's goals, and to develop one's knowledge and potential.

Mexico

A right that favours the full exercise of other rights, strengthens human development, provides access to the heritage of the written language, incorporates abilities that are necessary for continued learning, articulates informal, non-formal and formal experiences to favour learning, respects culture and promotes learning of native languages, including different sectors of the population who are disadvantage or vulnerable.

New Zealand

The ability to understand, respond to, and use those forms of language that are required by society and valued by individuals and communities. The *New Zealand Qualifications Authority* expands on this definition stating that “literacy skills are essential for good communication, active participation, critical thinking and problem solving” (Morrison & Violeti, 2015).

Definitions of ‘functional literacy’ were also included in several countries For example:

Mozambique

Adult Literacy and numeracy refer to the acquisition and development of skills of writing, reading and calculating by adults. Functional Literacy is understood as a process of learning to write, to read and to calculate through a set of activities that allow people individually or collectively to apply their knowledge effectively, to improve their living conditions and community welfare. Functional literacy is mostly used and applied in communitarians project involving grassroots associations, peasant associations, etc. with specific needs in agriculture, nutrition, etc.

Philippines

The ability to communicate effectively, to solve problems scientifically, and to think critically and creatively, to use resources sustainably and be productive, to develop one’s sense of community and to expand one’s world view; and as a significantly higher level of literacy which includes not only reading and writing but also numeracy skills. The skills must be sufficiently advanced to enable the individual to participate fully and efficiently in activities commonly occurring in his [sic] life situation that require a reasonable capability of communicating by written language. A functional literate person is one who can at least read, write, compute and/or comprehend.

Other definitions are wider and include other literacy constructs, such as ‘*prose literacy, document literacy and quantitative literacy*’. For instance, national surveys in the *United States* define adult literacy in terms of three constructs: prose; document; and quantitative literacy. Prose literacy is the ability to comprehend written stories, brochures, instructional materials, and other text an adult may encounter in community, work or

educational contexts. Document literacy refers to the ability to understand information contained in written forms, transportation schedules, maps, medicine labels and other authentic materials that do not involve extended text. Quantitative literacy (or numeracy) is the ability to compute numbers in real-life situations, for example calculating financial expenses, dosage of medicine from a prescription, or amount of interest due for a financial loan.

Environmental and contextual factors that influence acquisition and retention of skills

In our exploration of the country profiles we identified several environmental and contextual factors that constitute the broad literate environment. One of the most important was the legal and institutional framework for the provision and monitoring of adult education and literacy. Adult education is implicitly integrated at a constitutional level in some of the countries by recognizing education as a fundamental right. However, the implementation of ALE programmes are more visible when they are explicitly integrated into national laws and policies.

In Article 31 of *South Korea's Fifth Republic Constitution* promotion of lifelong learning is mentioned. Several Acts, based on this constitutional obligation, were adopted – for example, the Social Education Act, which was later amended in 1999 to become Lifelong Education Act. The most recent amendment of the LLE Act in 2007 establishes that:

- 1) *State and local governments strive to improve literacy skills, such as basic skills necessary for social life of adults, for example, functional literacy, cultural literacy and family literacy*
- 2) *Office of Education and School District Supervisors can install and operate adult literacy education programs in elementary and middle schools within the jurisdiction and specify the literacy programs that local governments, corporations, etc. are operating*
- 3) *As prescribed by the Presidential Decree of the Lifelong Education Act, state and local governments support literacy programs as a top priority.*

Policy shifts from literacy and skills development for life and work to qualifications to enhance employability for labour market entrance and qualification for existing workforce have also impacted the literature environment. For instance in *England*, this type of trend tends to reduce the provision and participation of those more in need of literacy and numeracy opportunities: i.e. the older population (60+);

students with learning difficulties and/or other disabilities; and all who have achieved less than a specified grade.¹³

In terms of the institutional framework, a proper allocation of human and financial resources was one of the main factors mentioned to improve the literate environment in several countries. Adequate financing for ALE programs was mentioned in Latin American, African and Asian countries, as well as insufficient numbers of adult educators and facilitators with specific pedagogical skills to work with adults.

As for the learning environment, its impact is often captured through some forms of informal learning. For example, in the case of South Korea it was recognized that to improve literacy programs, experiential learning and activities such as theatre presentations should be provided. On the other hand, New Zealand's report listed a series of informal opportunities in the country including: online literacy and numeracy adult education resources; public libraries; public lectures hosted by universities and their faculties, research institutes and professional societies on a regular basis; nationwide, and community driven informal learning groups; and culturally-based and religious based learning.

Opportunities for literacy and numeracy acquisition were reviewed across the 29 country profiles. Although it is impossible to present them all, there are some specific cases of provision in each region, which are worthwhile to highlight given their extension, focus or overall characteristics. They are mostly part of the learning opportunities provided by civil society and NGOs and provide some useful thoughts about learning opportunities for specific target populations and accessibility of provision:

- *Equity in the context of literacy acquisition*

Since literacy is, in many countries and regions, perceived as a human right, but also as a requirement and precondition for exercising other rights, and because it is treated in the context of the social justice and rights of specific groups, some country profiles took a closer look at *equity* as an important element of literacy efforts.

¹³ Level 1 literacy and numeracy skills equates to a D to G grade in GCSEs, and is judged to be the level of skill needed for adults to function effectively in society (House of Commons Business, Innovation and Skills Committee, 2014).

Equity issues were mentioned in several occasions as influential factors in the provision of youth and adult education and literacy, and, in particular, in relation to gender, migration, age, and rural and indigenous populations. The figures presented by *Mexico* provide a good example: Illiteracy specially affects women (61%), indigenous peoples (27%), populations in rural areas (50.3%), populations in their productive age (64%) and the unemployed (65%) (Hernández Flores, 2015).

In countries like *Cambodia* or *Kyrgyzstan* historical perceptions in relation to the value of girls education has impacted on female literacy rates, not to mention, the overall status of women. In these countries, there seems to be a dominant parental perception that education is not so important for the future of their daughters and that it offers few tangible benefits (Cambodia's country profile). However, and since illiteracy among girls and women is a common trend in regions like Africa and Asia, women are the prime focus in the provision of literacy programs in countries like *India*, *Nepal*, and *Zambia*; and in other countries like *Israel* and *Armenia*.

In countries with a large indigenous population, the provision of literacy programs in native languages are recognized as extremely important. *Paraguay* is a good example where most programs take into consideration the indigenous population and are provided in both Spanish and Guaraní (native language). Similarly, *New Zealand* has a significant and disproportionate representation of Māori and Pacific indigenous population in lower literacy and numeracy statistics. This constitutes an ongoing challenge for the national government, the communities, whānau/families and individuals themselves. The New Zealand government provides equity funding as a supplement for educational providers to enhance the service they offer to learners with different needs, including Māori and Pacific learners.

Although older populations were not the main focus of attention in the country profiles reviewed, there may be a final point worth making with regard to equity issues, adult learning and literacy opportunities for the elderly. It caught our attention that some of the literacy and NFL programs only target the adult population up to 65 years old. From a rights' perspective, the benefits in terms of self-esteem and empowerment that literacy and learning opportunities provide must be equally considered across the whole lifespan when designing and implementing adult education/lifelong learning programs.

Although some of the countries under review are rooted in the tradition of popular education and education for social change, empowerment seldom appears in their policy definitions of literacy. To an extent, and indirectly, it is recognized as the tool for empowerment, wherever its role as a bridge to lifelong learning and struggle for other human rights is mentioned, but the broader tendency to de-contextualize literacy and to reduce it to measurable skills may contribute to neglecting these socially transformative aspects which is still so crucial in many regions. Since literacy provision which is grounded in transformation, empowerment and social change is still more predominant in non-formal education and left to civil society actors, the existing reviews provide only very indirect insight into the achievements and progress in this broader framework.

- *Focus on indigenous populations*

In Latin America, the *Paraguayan* Programme of Bi-Literacy in Guaraní-Spanish and the Ñane Ñe'ë Post-literacy Programme promote reading as a means of access to knowledge. They reinforce Spanish and Guaraní literacy processes and mathematical reasoning. In *New Zealand* the indigenous Pacific population and native Māori population rate the least proficient in literacy and numeracy of all ethnicities measured in the country. The Wānanga (Māori tertiary institutions) have courses with a practical focus within a supportive Māori kaupapa (foundation) and a strong tikanga (culture, protocol) Māori environment covering a population of more than 35,000 participants (Morrison & Violeti, 2015).

- *Focus on migrants and women migrants*

The equivalency programs intended for specific target populations in Israel are funded through the government budget, and overseen by the Division of Adult Education in cooperation with other government ministries:

- For the Bedouin of the Negev a five-year programme intended primarily for women up to age 45 is offered that aims to advance their integration into the labour market.
- For the general Arabic-speaking public a programme for women aged 21-23 in the Arab, Druze and Circassia sectors is offered that enables them to complete their education and promotes personal development, with a view towards integration into employment.
- Programs for Ethiopian immigrants (in Israel). These programs are customized for diverse populations of adults, and reflect an increasing demand for such intervention. Recently, the use of

teleprocessing and digital learning has increased in classes for educated immigrants. There are also programs that teach pre-elementary-level reading comprehension for mothers of young children. These programs incorporate other areas of knowledge in preparation for elementary-level studies. There are also programs which focus on developing skills for finding work. These initiatives aim to: prepare participants for employment interviews; to cope with a variety of work situations; and familiarise them with concepts that are prevalent in the Israeli world of work.

- *Mass literacy campaigns*

By 2005 it was becoming clear that relying on the formalization of adult education for certification in *South Africa* was not going to solve the significant illiteracy problem in the country. It was decided, instead, to develop a mass literacy campaign, known as *Kha Ri Gude* (“Let us learn” in Venda, one of South Africa’s eleven official languages), which was greatly influenced by the Cuban and Venezuelan models of mass literacy. *Kha Ri Gude* worked on a Grade 3 equivalent as a literacy indicator, with the aim of assisting adults who have never attended school become literate and numerate. By 2014 the campaign had reached 3.8 million of the 4.7 million targeted learners.

India has the largest non-literate population in the world. These 282.7 million people comprise 36.6 % of the global non-literate population. On September 8, 2009, the Government of India launched a new programme *Saakshar Bharath (SB)* (Literate India). In targeting 70 million non-literate people, which includes 60 million women, this may be considered to be the ‘largest literacy program’ in the world. One of the basic approaches under the SB programme is its ‘convergence and linkages’ with livelihood, development and empowerment issues. The following themes were selected for convergence: financial literacy; legal literacy; and entitlements and electoral literacy.

Formal and non-formal adult education and literacy monitoring activities

The monitoring of adult education as a complex phenomenon cannot be seen as one process that merely focuses on one object of analysis. It is, rather, the composite of several processes, which is, or should be, sensitive to different aspects and elements of adult education. It is a contextual and consensual process. Our understanding of how to monitor adult education depends on the paradigms of adult education that are adopted, and the definitions, and contexts where monitoring is conducted. The methodologies used for

monitoring are also 'carriers' of certain discourses - qualitative and quantitative, with a variety of associated methodological instruments.

Frequently, monitoring of adult education relies on bare statistical data and surveys. This data is usually only part of a bigger set of data (comprising of a few questions). Occasionally, more comprehensive surveys are done in the context of scientific researches and studies. Very often, the definitions used in monitoring are taken as self-explanatory:

Illiterates – Individuals who do not fulfil the national criteria used to define the term 'literate'... Literates (basic level) – Individuals of any age who have acquired a basic level of literacy, according to national criteria... Literates (advanced level) – Individuals of any age who have acquired an advanced level of literacy, according to national criteria.

(Connal and Sauvageot, 2005)

This study provides some illumination about the ways in which such monitoring is conducted across the 29 country profiles under review:

Armenia

The National Statistical Service conducts annual household surveys identifying trends in various fields of demography, economy, education, etc. Although there is also a Statistical Yearbook which provides information on the main indicators of education, there is no section on literacy and numeracy.

Australia

There are a number of organizations and mechanisms involved in the collection and analysis of data around numeracy, such as

- The National Assessment Programme for Literacy and Numeracy
- The National Centre for Vocational Education Research

Adult literacy and numeracy levels are also monitored using data from Australia's participation in large international literacy surveys, such as ALLS and PIAAC.

Burkina Faso

The most widely used tests of basic literacy and numeracy skills are the Test of Adult Basic Education and the Comprehensive Adult Student Assessment Systems.

At the level of the Ministry of National Education and Literacy, the General Directorate of Statistics in partnership with the General Directorate of Non-formal Education, collect data on non-formal education annually.

Cambodia

The national census asks every person seven years and over whether they can read and write in the Khmer, and in any other, language.

Colombia

Since adult education is considered part of the official formal education system in Colombia, the Ministry of National Education is in charge of the supervision of adult literacy programs, through the Subdivision of Metrics and Evaluation of Education Quality.

The National Enrolment System provides information about enrolment in literacy programs. However, the statistics that are available come from the National Department of Statistics, which provides the literacy rate from the national census, is obtained by self-declaration.

Egypt

[Information regarding monitoring was not provided as part of the Egyptian country profile]

England

The national literacy, numeracy and ESOL (English for Speakers of Other Languages) core curricula for adults, provides standards on literacy skills and are developed by the Qualification and Curriculum Authority (QCA). The QCA monitors and assesses standards of literacy and numeracy skills. Formal assessment of functional skills, English and math is undertaken through national tests administered by independent awarding bodies. The quality of the provision is monitored through the work of the Office of Standards in Education.

Additional scrutiny is provided by other institutions such as: the National Research and Development Centre for Literacy and Numeracy at the Institute for Education; the Centre for Excellence in the Teaching of Mathematics; the South Bank University London Language and Literacy Unit; the National Institute of Adult Continuing Education (NIACE); the Education and Training Foundation; Research and Practice in Adult Literacies (RaPAL: a literacy practitioner research network); and through the National Association for Teaching English and other Community Languages to Adults (NATECLA) and the ESOL practitioner organisation. NIACE have hosted independent inquiries into literacy, numeracy, ESOL and family learning over the last decade.

In addition to these national monitoring processes, , England takes part in PIAAC.

France

Adults that lack basic skills can be identified through several mechanisms in France:

- Tests for youth during *Journée Défense et Citoyenneté*, which allows public authorities information on their qualification level.
- The Information and Daily Life (*Information et Vie Quotidienne - IVQ*) survey, which was designed by the National Institute for Statistics and Economic Studies and the National Agency for the Fight Against Illiteracy, enables the release, for the first time, of large-scale figures on illiteracy. The IVQ is a series of face-to-face basic skills tests (writing, counting, oral comprehension) conducted among a sampled adult population and specifically designed to avoid stigmatisation and to take into account the daily reality of illiterate target groups.
- At regional level, cooperation between L'Agence nationale de Lutte contre l'Illettrisme (ANLCI) and regional authorities promote the creation of the centres that are given the mission to define, monitor and evaluate necessary policies in employment, orientation and training (including regional literacy action plans) to ensure coordination of stakeholders and coherence and complementarity of training programs.
- The quality of basic skills programs is also ensured by the obligation of training providers, that apply for regional public tenders, to comply with specific quality assurance processes.

Germany

The participation rates are monitored via the Adult Education Survey (AES) every two-three years by a household survey which is conducted as a computer-aided personal interview.

The statistics regarding literacy provision is gathered by the *Deutsches Institut für Erwachsenenbildung*.

In addition to using PIAAC monitoring protocols, competencies in reading and writing are monitored by the nation-wide Level-One-Survey LEO.

Greece

The General Secretariat for Lifelong Learning conducts programme evaluation and monitoring for both formal and non-formal adult education.

In 2007 the Secretariat established the National Office for the Implementation of the National Quality Assurance & Assessment Framework. This framework aims to improve and monitor the quality of almost 500 adult learning and education providers. The framework established a comprehensive analytical framework and a set of 15 indicators on lifelong learning (LLL).

Assessment is also carried out by the Ministry of Education and Culture, largely through a recently-established authority - the National Organization for the Certification of Qualifications and Vocational Guidance.

India

The Monitoring Unit in the Prime Minister's Office collects information to inform the Prime Minister on a quarterly basis about the performance of the National Literacy Program. To meet these requirements, a web-based planning and monitoring information system was developed by the National Informatics Centre (NIC). The National Institute of Open Schooling conducts assessment and certification of adult literacy learners.

Israel

The Division of Adult Education directly supervises the implementation of the various projects in which literacy and general education programs are offered to adults. They also have a number of achievement tests to assess literacy and numeracy skills in different programs provided, such as the elementary education programs.

In addition, some programs of the Division of Adult Education are assessed by the National Authority for Measurement and Evaluation in Education (known by the Hebrew acronym RAMA).

Jamaica

In 2012 there was an attempt to implement UNESCO's LAMP. However, this was not, subsequently, pursued by the Ministry of Education.

However, the Jamaican Foundation for Lifelong Learning's (JFLL) Annual Report provides some data. The report highlights the operational performance of the agency and provides a summary of the performance targets and actual outcomes which are presented as summaries against projections.

At a national level, the National Development Plan, constitutes an improved accountability framework for Jamaica's Vision 2030.

In 2010, the Education and Training Thematic Working Group was formed to serve as the main mechanism for coordinating and monitoring activities related to *Vision 2030 Jamaica's* national outcome "World-Class Education and Training" and successive medium-term socio-economic policy frameworks. Its goal is ambitious and allows for the monitoring and evaluation of adult education and training initiatives through the participation of JFLL, HEART Trust/NTA and other key stakeholders.

Kyrgyzstan

The first national Adult Education Survey was conducted in Kyrgyzstan in 2015. The sample was designed to be representative of the 25-64 year-old population of Kyrgyzstan. In cooperation with DIE (German Institute for Adult Education) and DVV International (the Institute for International Cooperation of the German Adult Education Association), the questionnaire developed in English was translated into Russian, adapted to the local context and pre-tested among 20 adults in rural and urban settlements in Chui oblast. The target population was comprised of the adult population of the Kyrgyz Republic aged 25-64 years who lived in private households. The overall sample size constituted 2,400 respondents. Beyond this survey, there are no special evaluation or assessment procedures existing at administrative level to monitor the trends of literacy among the adult population in Kyrgyzstan.

Mexico

INEA (Instituto Nacional para la Educación de los Adultos) is inscribed in Mexican national policy on accountability and, as such, it informs society about its purpose and the achievement of its goals. The INEA conducts its work using the Automated System for Follow-up and Certification (SASA by its acronym in Spanish), which collates a registry of quantitative achievements, and the Operational Monitoring of Study Circles, which focuses more on the operational aspects and quality of the services provided.

Mozambique

The government is designated as being responsible for monitoring adult education through a variety of structures and processes: district services of education; the Provincial Directorate of Education; and the National Directorate of Adult Education. These bodies work in partnership with other organizations and individuals involved in adult education. However, as referenced in the strategic plan of adult education 2010-2015, data collection (whether qualitative or quantitative) remains a big constraint. The data collection through National Supervision, provincial supervision and district supervision doesn't ensure a systematic monitoring because of different constraints: transport; reduced budget; lack of human resources; etc.. So, despite the appearance of national monitoring mechanisms, the reality shows that there is little functional systematic monitoring and data collection.

Nepal

The Central Bureau of Statistics conducts a population census every 10 years, and a Living Standard Survey and an Annual Household Survey on a periodic basis.

Agencies involved in non-formal education are required to provide their monitoring and evaluation reports to the non-formal education unit of the District Education Office (DEO).

New Zealand

The Ministry of Education provides data from participation in adult formal education programs. Through the ALS (Adult Learning Support services) different types of literacy (document, prose, numeracy and problem solving skills) were reviewed in 2006. The survey involved a sample of 7,131 New Zealanders aged 16 to 65. In addition, a range of government agencies and wider organizations with links to

governmental educational agencies produced reports on adult education and literacy; for example, the Ministry for Māori Affairs.

New Zealand is participating in the PIAAC survey and the results are to be made available in July 2016. This will provide the latest update in adult literacy and numeracy rates that were last measured in 2006 via the ALS.

Paraguay

The Development Institute for Educational Innovation of Mercosur includes assessment of youth and adult education. In 2011, UNESCO's LAMP was developed as a "pilot survey" with the following objectives: a) measure reading skills and numeracy of young people and adults b) provide evidence of the literacy skills profile in subpopulations c) generate socioeconomic population and subpopulation information and analysis of variables associated with the distribution of literacy skills d) promote public debates; and e) design educational and inter-sectoral policies to expand opportunities that improve the living conditions of people in the knowledge society.

Philippines

The Functional Literacy, Education and Mass Media Survey is conducted every five years to help measure the level of basic literacy and functional literacy of the population who are 10 years old and above.

The Accreditation and Equivalency is a paper and pencil test designed to measure the competencies of youths and adults who have not attended nor finished their elementary and secondary education in the formal school system. On successful completion of this test, participants are given certification which regards them as comparable graduates of the formal school system. This, in turn, means they are eligible to enrol in secondary and post-secondary schools.

The Bureau of Alternative Learning System has also established a Management Information System for its ALS program.

Serbia

The main literacy data is collected via national census. The Ministry of Education and Science, National Education Council, the Council for Vocational and Adult Education, the Institute for Improvement of

Education and Institute for the Assessment of Quality of Education are all responsible for collecting data and monitoring the status and quality of education in different fields.

South Africa

Assessments were used in the *Kha Ri Gude* initiative (the main literacy campaign in the country) as the predominant tool to monitor achievements of the program, learners, and educators. The South African Qualifications Authority was able to undertake a process in which the course materials and portfolio documents were checked for their alignment with the first level of the National Qualifications Framework and the first three levels of UNESCO's LAMP assessment.

South Korea

The Population and Housing Census or the "National Basic Literacy Survey" which was conducted by the National Institute of the Korean Language in 2008, are used to estimate potential literacy participants. Additional evaluation is done by the Ministry of Education on literacy programs divided into three areas 1) managing-assessment of literacy education institutions, 2) quality management of programs and learner support, and 3) the contribution to activate local literacy activities.

Spain

The evaluation of the education system is organized from the state level through the National Institute of Educational Evaluation and in the autonomous communities, through the regional assessment bodies. Since 2000, the Spanish Ministry of Education, Culture and Sports publishes the State System of Education Indicators and offers the outcomes of the major education statistics both nationally and by region. It also presents international data that allows Spain to place itself in the framework of the OECD and the European Union. Spain is particularly interested in indicators related to the *Europe 2020* strategy. The data related to each of the indicators are collected from institutional sources. Thus, education statistics have been calculated from the state education statistics, together with other sources from the National Statistics Institute and international statistics.

The development and review of these indicators is conducted jointly by the General Department of Statistics and from the National Institute of Educational Evaluation.

Sudan

The General Secretariat for Literacy and Adult Education is the monitoring authority in Sudan.

Uganda

The Uganda Bureau of Statistics conducted the latest census in 2014. Typically censuses capture data on education and literacy levels of persons of 10 years and above. In addition, surveys are conducted every year (national household surveys, Uganda demographic & healthy surveys, labour-force surveys), which also collect data on the population's educational attainments among other socio-economic characteristics. The National Education Information Management System, which regularly captures process and outcome data on education, does not include data on adult education provision. However, adult education opportunities in their diverse forms and outcomes are monitored under different government departments. The national adult literacy management information system, programme reviews and evaluations (as well as censuses and surveys) are the most relevant government-led monitoring and assessment mechanisms.

Uruguay

Responsibility for monitoring lies with different institutions related to national education provision. For example, the National Public Education Administration's annual report provides data for the Ministry of Education. However, it is not clear how educational opportunities for young people and adults are systematically and uniformly supervised (or monitored via data collection) by national authorities because the dimension of the "field" of adult education in the country has been reduced.

There is not a policy and programme of specifically monitoring and evaluating adult education.

United States

The United States utilises a national reporting system on students' assessment. Performance is measured by standardized tests, which may be administered using paper or computer. The tests used must be approved by the Office of Career, Technical, and Adult Education (previously called the Office of Vocational and Adult Education). The most widely used tests of basic literacy and numeracy skills are the Test of Adult Basic Education and the Comprehensive Adult Student Assessment Systems.

Zambia

Zambia has a fairly-developed Management Information System, but it has been experiencing challenges in the sustainability of its Education Management System as a result of high rates of staff attrition and inadequate capacities at various levels. The Ministry of Education relies on data realised from the National Census, Annual School Census and DHS (Demographic and Health Survey) to track progress on literacy levels.

Coordination between national and global monitoring is an important issue too. In some countries, there is a link between individual assessment or nation specific monitoring solutions (such as the role of supervisors in Nepal and South Africa; the National Learners Record in South Africa; or the National Numeracy campaign in England; etc.) and global targets.

Analysis of country profiles and discussion of shared patterns and commonalities

The range of *skills addressed* in the country profiles covers those that could be considered as ‘basic’ – i.e. reading, writing, calculating. Other definitions are wider and include other literacy constructs, such as *prose literacy, document literacy and quantitative literacy*. However, almost all countries link these skills to broader functions and to the roles of the person in the context of family, community, work etc. The aspects of ‘functional’ skills is very much a present issue – either by using ‘functional literacy’ in relation to definitions or by pointing out the importance of literacy and numeracy skills for real life situations.

Country *definitions* are usually constructed by one or a combination of:

- national legislation;
- national plans and policies;
- UNESCO definitions;
- international surveys (ALS, IALS, LAMP, PIAAC);
- national and regional statistics institutions, surveys and censuses.

Countries usually combining international approaches and definitions (UNESCO, OECD) with their own concepts. However, the lack a theoretical background is obvious:

“There is no identifiable theoretical framework underlying the NRS [National Reporting System] accountability system. Adult literacy and numeracy performance is assessed in terms of standardized tests which themselves have little theoretical grounding in regard to authentic adult literacy and numeracy practices” (USA country profile).

The influence of global surveys on literacy is obvious in the conceptualization, and in the approach, of many countries. This influence is, in turn, visible in the skills addressed in the definitions. At the same time, the common national understanding is often limited by traditional understandings of reading and writing, and numeracy is often neglected – some country profiles do mention numeracy, but it is usually not elaborated upon, conceptualised or measured with the exception of some national surveys. In the case of ICT skills, they are recognized as important, but usually not addressed by national surveys.

A kind of gap may be observed in the definitions and understanding of literacy from this study. A very traditional understanding of literacy is expressed through the usual way of measuring it: by self-expression, self-estimation, or even through some kind of simplified tests, where 1-2 sentences should be read and understood. On the other hand, the common understanding is related to the numbers associated with schooling, where everyone who has spent a few years in school is considered 'literate'. There is, additionally, the understanding of literacy derived from international surveys (mostly PIAAC), with categories and definitions that do not reflect the ill/literate reality of individual countries. These definitions are often adopted, but rarely integrated into national literacy initiatives.

The country profiles name legal regulation as a priority in terms of *learning environment* factors. This fundamental aspect is often accompanied with a stress on the importance of financing. There is also a whole range of informal educational programs, initiatives and settings that influence literacy and numeracy acquisition and retention.

The formal and less formal frameworks of education are usually distinguished by the place in which they are provided. Twelve country profiles provided definitions of non-formal education/learning which stated that it takes place "outside the school" or "outside formal education". In addition, for some countries like USA and South Korea, it is understood as some structured form of learning that doesn't provide a degree or certificate. This definition was only different in the case of Paraguay, where non-formal education relates to "basic general education in a more open manner than formal programs, with a participation certifying system" (Colazo, 2015).

The countries differ very much in terms of where literacy provision is situated: in some countries it is almost purely formal and, thus, close to the school system and basic education structures; in other

countries, literacy courses and initiatives are paradigmatic examples of non-formal provision. This makes it quite difficult to design a common approach to monitoring.

In general, adult education *opportunities within formal education* take place in universities, technological institutes and polytechnics, the latter for vocational studies and applied education, and institutions and organisations of community, VET and work-place education. However, not all countries consider vocational studies as part of formal education regardless of the level of qualifications acquired. Literacy and lifelong learning provision are either expressly, or assumed part of, non-formal education. Colombia provided an exceptional case where “the literacy process is a part of the first cycle of basic elementary education, and its main purpose is to enrol adults in the public educational service and to watch over the enforcement of the fundamental right to education” (Fundación Transformemos, 2015). This example shows also a kind of literate environment which is supportive for the literacy efforts:

Official Educational Establishment provides adult education during night or weekend shifts, with the same books used for children at 1, 2 and 3 grade, but using specific methodology for adults. Additionally, the Ministry of Education authorizes the implementation of educational models design for youth and adults to be implemented in Educational Establishments, managed by civil society and NGOs, through the country and overseen by the regional Secretariats of Education. The literacy programs exist also in coordination with universities and other academic institutions. (Colombia’s country profile)

Literacy opportunities are very often provided *as part of non-governmental programs*. Overall, adult literacy education is conducted through a series of public and private organizations such as, local governmental entities, NGOs, trade unions and companies and employers. This provision generally covers adult education opportunities within the functional literacy and skills for life and work spectrum. In *Egypt*, NGOs cover a broad curricula including health, sustainable development and human rights. Similarly, in *New Zealand* there are private organizations that promote financial literacy. In *France*, employers encourage seven out of ten new training initiatives. Furthermore, private and public employers are legally bound to finance continuous training.

In *England*, trade unions have had an important role to play in making and supporting the provision of adult education. The trade union movement: was supported in developing learning representatives alongside shop stewards; was charged with representing workers' learning needs in dealings with employers; and acted as peer group mentors, advisers, and brokers in helping workers gain access to appropriate provision.

In terms of the opportunities for literacy and numeracy acquisition for special target groups, many countries provide this by various players in the civil society sector - mostly NGOs. This is true especially for the programs concerned with empowerment, social change etc. In fact, looking across the country profiles, a polarity based around purpose and provider seems to emerge. The pole which is more saturated with vocational oriented skills and content is more covered by government; and the pole closer to personal development and empowerment is covered by civil society. However, programs presented in several country profiles indicate that successful combinations of, and partnership among, these actors can provide the best results in increased access to literacy acquisition and the in the retention of literacy skills.

Literacy acquisition, combined with *vocational skills is presented in several country profiles. Particularly in countries where* illiteracy is considered to be largely overcome, technical and vocational skills are prioritized in the provision of adult education. The provision of vocational education and training takes place in formal and non-formal institutions, and with the support of the state and other non-governmental and private organizations.

Some of the vocational programs which integrate literacy learning that are mentioned in the country profiles include:

Cambodia's Community Learning Centres across the country are essential mechanisms to deliver multiple programs such as literacy classes, vocational skills acquisition and income generation initiatives to the community members, particularly in rural areas.

In *Kirgizstan*, since 2006 the Kyrgyz Association of Adult Education (KAAE) brings together 13 major and 10 associate members of all regions of Kyrgyzstan. KAAE provides non-formal education for adults and is actively developing a sector of further vocational education in universities and colleges of the republic.

In *France*, private and public employers are legally bound to finance continuous training via the OPCA (organisme paritaire collecteur agréé) who collect their contributions within a fund called the “Joint Fund for Securing Professional Pathways” which was created in 2009. Social partners are in charge of assessing basic skills needs, replying to employees’ requests and organizing training policies in companies. Training is intended to be adaptable to learners’ needs, rhythm and professional expectations.

In *Mozambique*, currently, there are about one hundred training centres for vocational skills development, public as well as private, that annually admit around two million adults. However, the conventional models of training are no longer adapted to the current labour market and the trainers are not equipped with knowledge and skills in adult education teaching-learning methodologies.

An analysis of the different programs in all 29 country profiles offer other examples of formal and non-formal education opportunities for the acquisition of adult learning, including “other literacies”. Although the programs were not described in great detail, it may be worth mentioning that health literacy, education for citizenship, and sustainability are been addressed outside the basic skills agenda. At the same time other creative provision – linking formal basic skills to wider rights-based agendas-, has also been developed in non-formal educational settings (as indicated, for example, in country profiles Greece, Spain, Sudan).

Most countries, according to the profiles, lack reliable and comparable information, both qualitative and quantitative, for *monitoring adult education and literacy* . Monitoring adult education in the formal system usually follows the approach, and uses the instruments, of school evaluation and is very seldom adapted to the specific character of adult education. Systematic monitoring of non-formal adult education quality, achievements and performances hardly exists, and is usually left to civil society stakeholders. If monitoring does take place in the non-formal sector it is usually organised for a specific purpose- such as recognition and validation of competencies gained in a non-formal way.

With a few exceptions, traditional, government-led monitoring models of literacy prevails in many countries. Data collection is organised in the easiest and not always most reliable way – primarily through population and household censuses and sample surveys. These methods rely heavily on self-assessment, or simply by year of educational attainment, whereby the minimum years associated with literacy acquisition is arbitrarily defined. Every country in the survey uses a national census to collect literacy data. Some do

their own national surveys and/or tests. However, the majority of the countries are either included in international surveys (UNESCO, UIS, PIAAC, and others) or they believe that they would benefit from it.

Monitoring of country NFL, AE and literacy in the future

The arbitrary and unreliable character of literacy assessment based on unreliable national data was addressed many times, because the illiteracy rate became the wide-spread indicator without convincing relevance and real comparability. Additionally, the country profiles support strongly the dichotomous definitions of literacy: literate – illiterate.¹⁴ However, these definitions stand in contrast to the move away from binary notions of literacy in adult education research and literature which regard such framing as, at the very least, unhelpful. In fact, the UIS recommended to abandon the use of literacy as the indicator of human development (HDI), as stated by the authors of HDI (Human Development Index) and researchers from Oxford University: “Adult literacy used in the previous HDI (which is simply a binary variable – literate or illiterate, with no gradations) is an insufficient measure for getting a complete picture of knowledge achievements“ (Reyles, 2010).

One of the reasons for the national successes of international studies was that they by tested samples on the national level with the same, standardized methodology – ALL, IALS, and finally PIAAC. Although there has been a lot of criticism of the PIAAC approach (see for example Tsatsaroni and Evans, 2013), it provided a more complex view by offering several categories of assessment (literacy, numeracy and problem-solving in technology-rich environment) by country percentages located on a transnational scale (with an imaginary OECD-average). PIAAC also matched the need to capture functional literacy by insisting on applicable knowledge and use of skills. This survey became, thus, a discursive instrument for the creation of a contemporary literacy concept, which uses structuring through benchmarking (Jakobi, 2007). Understandings of, literacy, then, has been almost completely replaced by basic skills and, on some level, competencies.

¹⁴ Even UNESCO supports it: “Conventional literacy statistics that divide the population into two groups based on this definition – one that is literate and one that is illiterate – are widely available and useful for the tracking of global progress towards universal literacy.” (UIS, 2013)

Further steps in developing an effective monitoring approach will have to take into account several aspects: *conceptual discussions; contextual and cultural character of literacy; methodological improvements; combine quantitative and qualitative data; measures and indicators of global relevance and comparability; common literacy targets.*

- Monitoring has to go back to *conceptual discussions*. There needs to be more interrogation of different approaches and interpretations. This should take place, in parallel, with theoretical changes and approaches in relation to: discussions on functional literacy; family literacy; multiple literacies; literacy as a continuum. All of these ways of imagining and understanding literacy should be accompanied by monitoring and measurement methodologies. This tension between adult education concepts and measurement processes was noted in the US context: “Inform framework with theory. The development of a sustainable adult education assessment and monitoring framework would benefit from a theory of adult education” (USA country profile). Monitoring of the Dakar Goal 4 clearly states that “Literacy of the most rudimentary kind is a useful intermediate target; but it is only a step towards a broadly defined culture of literacy that includes a vast range of different interpretations of ‘literacy’” (Connal and Sauvageot, 2005). It seems, then, crucial that a comprehensive revision of the monitoring approach should start with conceptual clarifications.
- *The contextual and cultural character of literacy*, as well as the literacy reality and practices, have to be taken into account. The LAMP programme showed again that statistical measurement of literacy is not a context-free or culture-free endeavour. However, the discursive character of the PIAAC approach (based on the discursive character of ‘skills’ concepts and competencies, which is conceptualized in industrialized countries) doesn’t leave space for different understandings and different practices in various parts of the world.

Assessment instruments should have a clear relation to authentic adult literacy and numeracy practices. The determination of literacy and numeracy levels should be anchored in these practices rather than proposed based on scores from standardized tests, which tend to feature artificial rather than authentic items. (USA country profile).

An example of such practice maybe be found in the capacity building programs like RAMAA (by UIL – UNESCO Institute for Lifelong Learning), where “*the priority is to foster south-south co-operation and independence from re-colonisation by northern scientists*” (Grotlüschen, 2015). A similar point was made within the Serbian context: “The approach cannot simply be decreed from the top down; it must also be built from the bottom up” (Medić, 2015).

- Further *methodological improvements* are crucial in a move towards more effective national monitoring of literacy. Regressing to historic and obsolete measurement instruments and processes is not a solution. Neither do departures like the decision of HDI not to work on the ways of measuring literacy as a continuum, but, rather, simply to omit it as a measure seem like a way forward to enhance opportunities for literacy development.

The HDI remains a composite index that measures progress in the three basic dimensions of health, knowledge and income... knowledge is now measured by combining the expected years of schooling for a school age child in a country today with the mean years of prior schooling for adults aged 25 and older (Reyles, 2010).

So, instead of focusing efforts on intensive research into a new approach to literacy, and into developing more effective methodology that might capture and realistically measure adult literacy and monitor progress, literacy was simply taken off from the list (Tuckett, Popović, 2015). It is imperative that the process of monitoring literacy should include monitoring mechanisms itself!

Methodological improvements need to find the most appropriate way to measure literacy as a continuum (where the cross-country consensus is needed about the number of levels and their descriptions) and ways to measure different kinds of literacy, when a common understanding of *multiple literacies* is achieved. It could be developed by the common approach of including the main types of literacies (i.e. reading and writing, numeracy, computer, health, political, financial literacy, etc.) and agreement about their main descriptors on the global level, leaving a defined area for nationally-specific targets and indicators. “Since literacy, numeracy, technological and workplace functions may differ considerably across countries, it would be important to identify common basic functions that could be measured in order to permit

comparison” (USA country profile). This need to expand the focus of monitoring and the need to include new partners seems to be an important input from several country profiles.

A large number of national, regional and local projects and activities are aimed at supporting skills of adults for employment, inclusion, health, engagement, families and the economy, but there is no systematic data collection about these efforts... All of these projects monitor their activities and achievements; however, there is no system-wide practice of integrating these data and, due to diverse methodologies developed by different authors, various reporting requests from various donors and, above all, due to the absence of a common monitoring framework, any attempts at integrating the results of and conclusions about various aspects of the education of adults encounters serious hindrance. (Medić, 2015). Thus, it seems clear that the complexity of literacy phenomena could be better captured. *“The challenge is to find ways of developing, assessing and celebrating literacies in all their diversity – to achieve this will involve a culture change, in which educators and students are trusted to develop effective provision, rather than complying with centrally set targets”* (Tuckett, 2015). It may be a move towards a suite of qualitative and quantitative models of monitoring such as ethnographic studies or self-reported literacy assessments. Burkina Faso provides some sense of alternative methodologies and suggests that a collection of a few success stories of learners: testimonies on the successes and / or shortcomings of the process of their training can also yield key insights to the understanding of literacy in a national setting (Diallo-Bolly & Boubacar, 2015).

Inclusion of many relevant covariates in systematic assessment was recommended by some authors of the country profiles (for example, Burkina Faso, Uganda, Zambia). In this way, it would be also easier to relate literacy and adult education to many others SDGs beyond SDG 4 and to show that literacy and numeracy are often the preconditions and foundations for successful implementation of strategies for other goals. Such an approach would enhance the visibility and understanding of the inter-sectoral and reciprocal links between education, sustainability, and key areas of the post-2015 global development agenda including: poverty reduction; hunger eradication; improved health; gender equality and empowerment; sustainable agriculture; and other fields.

- Another, related, area for methodological development is the necessity to *combine quantitative and qualitative data*. A background questionnaire as part of a survey is not a

qualitative study - it only provides some, side-line, qualitative data. Many authors recognize the need for more qualitative methodologies:

Monitoring of literacy programme should be comprehensive covering both qualitative and quantitative aspects – (India country profile); [T]he device should interrogate and analyse both the quantity and quality indicators by putting more emphasis on the relevance of training programmes, the adequacy of training opportunities and contents with learners' needs, the quality of monitoring and evaluation tools, the quality of human teaching and learning resources (Burkina Faso country profile);

Focus on a qualitative process for monitoring and assuring quality with emphasis not only on formal operations, but also to unofficial results and interactions (Greece country profile).

- It is important to find an assessment method or methods that are relevant and feasible on the national level (from the expert and financial point of view) and to formulate *measures and indicators of global relevance and comparability*.

The majority of the countries in this survey used a combination of data collected via census and results from national surveys and testing. Yet, many authors recommend PIAAC as the best way to measure and monitor literacy. Some authors add that although PIAAC is needed, it is not enough, and should be accompanied by other approaches:

That does not mean abandonment or exclusion from international comparative studies of basic skills (such as PIAAC). On the contrary, they are useful, but it would only be wrong to consider them sufficient and to give up efforts to complement them with another studies and researches (Serbia country profile).

A possible way forward would be a combination of existing elements. A collection of the data via national census is a starting point, but each country could use smaller surveys and tests on a representative sample, developed and tested through research. Such an approach may provide an estimation of the percentage of the persons self-declared as literate, with uncompleted basic education, who cannot be considered literate in terms of the country definition. Alternative methods are needed to address weaknesses in national processes:

National monitoring and assessment are only conducted for programmes in receipt of federal funds i.e., under AEFLA, excluding instruction under non-federal funding, and non-formal adult education from analysis (USA country profile);

The assessment through the visit of the literacy education institutions puts emphasis on evaluating whether of the conformity of the actual and the submitted documents (South Korea country profile);

[M]onitoring and evaluation of adult literacy in its weak state, is generally inclined to participation or access. It is about enrolment, attendance and distribution of learning materials for accountability purposes

(Uganda country profile)

International surveys such as PIAAC could also be used as this kind of instrument can help to come to more realistic estimation of the literacy problem on the national level.

Some countries, like Germany, are already combining PIAAC results with thoroughly, conceptually and methodologically, prepared and conducted national testing. “It seems to be more appropriate to complement PIAAC with national level one surveys instead of comparing level one data with the reading components approach” (German country profile). There is even a recommendation for UNESCO “to complement an adapted version of the PIAAC survey with questions that ask people’s own perceptions of their confidence and competence in using literacy and numeracy (on a five-point scale) in, for example, dealing with official documents, buying a car, estimating a budget, agreeing a loan” (England country profile).

- Finally, there is a question of *common literacy targets*. A global target on literacy, such as the UN’s SDG target (4.6) “to ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy”, is far too unclear. The concept of ‘substantial’ is very diffuse and an adequate number, and associated goals, must be specified by each country according to their current situation. These should be proposed according to their needs and the rights of the population. The important thing, however, is to ensure a growing trend towards the enhancement of literacies in the shortest possible time. This could be 50% or 100% - it will never fit all the countries.

...each country should have its own strategy for literacy and answer to the question on what literacy means in every sphere of the life of an adult. It is difficult to develop common criteria and, in particular, common indicators for all countries (Serbia country profile).

This sensitivity to national and local variance and understandings of literacy is a point that is reinforced within the Greek context: “it must be noted that this asks for a clear and universal meaning of the term literacy that will also include aspects of social and cultural diversity within a society, not excluding regional and local variations within countries“ (Greece country profile).

It seems, then, that broad common concepts and a related common methodological approach could use previous experiences on national and global levels in assessment and monitoring to enable global comparability of data, while still leaving the space for national relevance of data. “*It is also true that in education "time" is relative: cultural changes take time. When 2030 is proposed, perhaps it is best to recommend concrete plans to improve the education with goals such as achieving measurable progress by 2020 and 2025*” (Camors, 2015). The warning about the “assumed static nature of the illiteracy targets” (Lolwana, 2015) suggests that there is a need to leave the space for adaptation within the context of individual countries during the 15-years’ period of validity envisaged by the global agenda.

- *Specific recommendation* from the country reports go beyond the monitoring system, and include problems related to the overall field of adult education, especially non-formal adult education. Issues identified relate to : poor preparation of the adult education staff (who should also conduct the monitoring process); their precarious situation; lack of legal regulation and policy; lack of research (mostly due to poor financing) that could support monitoring processes; the role of social partnership, especially the important role that civil society should play in the monitoring process (emphasized by many authors of the country profiles); special attention that should be given to the most important groups (such as women) etc. Identifying low-literate populations is one of the main steps in the process. Extensive recommendations are provided in the country profiles for the process of providing learning opportunities, increasing access and developing supportive programs, with the focus on overall participation in adult education programs. Monitoring could be

seen only in this broader frame of dealing with adult education and the problem of illiteracy.

Design and methodological challenges

The challenges for an improved approach to monitoring are twofold:

- Firstly, developing common approaches, understanding and concepts requires *political will and partnership* on both an international and national level. The dominating methodological discourses are characterised by the concept of skills and ‘quantitativism’ on one side, and traditional understandings which equalize literacy either with the years of schooling – as HDI does -, or defining it via self-assessment in census. These positions do not leave space for new agreements and views on literacy that would reflect new social, economic and cultural realities. Therefore *change of the discourse* is a ‘must’.

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Partnerships on the national level implies that a monitoring process shouldn’t be conducted solely by a ministry of education or similar body. Other ministries and partners from research, academia, civil society should take part as mechanisms are developed, piloted and established.

The monitoring framework should ... identify indicators for each area of life, and make them clear and measurable (quantitatively and qualitatively) with a clear allocation of responsibilities for progress in each of them ... Education policy in the field of literacy must be a result of cumulative efforts of all ministries in a country. As long as adult literacy is the responsibility only of the Ministry of Education, adult literacy will be a marginal social problem as well as a marginal educational phenomenon (Serbia country profile). An important aspect of the policy challenges are investments that need to be made in developing the mechanisms for joint monitoring and data collection. This is one of the main steps and main concerns (“...how to measure a substantial proportion if there are no clearly established baseline, starting points and expected results” – Uruguay country profile). To collect reliable data in a systematic ways requires substantial investment. However very little progress would be achieved or measured unless data is available. Another implication of a genuine partnership model is that many governments will have to reveal the ugly face of illiteracy and to confront the real size of the problem.

- Secondly, it needs to be made clear that methodological challenges consist not so much in overcoming weaknesses in the current collection of literacy data (i.e. the fact that the ability to read and write is most often self-reported by survey respondents in census and household survey; the dichotomous nature of traditional literacy statistics; insufficient and weak models of testing such as those used in DHS and MIC studies). These issues are more related to the policy of literacy monitoring. The challenge is much more about providing methodological answers to conceptual debates – that is, how to best approach, measure and monitor functional literacy and literacy as a continuum, and how to capture cultural and contextual aspects of literacy.

Close and significant intranational and international cooperation will be necessary in order to honour the national and contextual nature of literacy while, at the same time being cognisant of the relevancy of global goals at the regional and national level. The significance and necessity of such cooperation becomes even more apparent when, in addition to these demands, methodological issues relating to the need for comparable data and valid cross-country insight are added. Such cooperation will need to involve coordinated work and clear communication between policy and science, decision makers and researchers, and finally - between those who plan, implement and monitor literacy and adult education programs.

Conclusion

Although the country profiles and existing literature show the complexity and multifaceted nature of adult education and literacy, there are some clear tendencies in literacy programs for assessment and monitoring on the global and national level. The conclusions touch upon broader problems of adult education and literacy within the specific contexts of monitoring literacy and numeracy.

The present situation regarding literacy is a concerning one. In spite of significant global policy and media attention, numerous initiatives, and continuous efforts in various national and regional contexts, the achievements are far from satisfactory. There are several reasons for this. These challenges include:

- Policy creation and programme development, implementation, monitoring and evaluation should go hand in hand and be balanced. It is useless for policy to make target-related statements which are logistically improbable. For example, “reducing illiteracy to 50%” sounds like a worthy target but means nothing if the implementation measures and financial resources are not clearly and consistently committed to achieving this.
- Targets should be based on clear baseline data and research evidence. At present, discussion about targets and indicators looks more like an ‘auction’ – a competition between various participants in the decision-making process., The result has less to do with a realistic sense of what is achievable in terms of literacy development but, rather, more a product of their own power relations.

- There is a conceptual confusion around adult education and literacy among international organisations. This conceptual ambiguity has a direct influence on methodological issues including monitoring. There is no continuity in dealing with, (nor following, measuring, or developing) certain concepts. Concepts are being changed, exchanged, copied, transferred and transformed for policy reasons, without any accompanying research elaboration or justification and/or consideration of practical consequences. For example, the conceptual slipperiness between adult education and lifelong learning or literacy and basic skills. Even literacy is sometimes broadly conceptualised to include a variety of skills including numeracy. Sometimes literacy and numeracy are treated separately with the latter receiving far less theoretical attention.
- National and international monitoring frameworks are not connected. There is no functional relationship between them. In the best cases, international surveys are accepted and conducted in addition to national measures, but they are not harmonised in approach and methodology. The transfer is almost entirely one-sided: from the global to the national level and, even then, more on the declarative level (international surveys rarely influence national monitoring practices).
- There are plenty of good examples of innovative literacy provision, useful research and numerous recommendations for monitoring – both for conceptual and discursive decisions about frameworks, and for methodological solutions and instruments. What is lacking, though, is political will and commitment to deal with these solutions, insights and recommendations in an analytic and systematic way and to provide enough policy means and financial resources for their implementation.

These challenges are reflected in the country profiles. Population and housing censuses are the primary source of literacy data. These are often combined with national sample surveys and tests. However, there is no clear theoretical background regarding the concepts and definition of literacy. Instead it appears more as a conceptual mix of several of them. The majority of countries surveyed still use the traditional dichotomous variable as a measure for literacy (especially those based on census data). However this is often combined in a fairly inconsistent and disconnected way with individual skills-assessments, supervisions, traditional school methods etc. In fact, what appears to be happening is that the provision of literacy (and innovations in increasing access to literacy programs) are developing faster than the creation of coherent monitoring systems which can capture any associated achievements of these initiatives. The recommendations related to the methodological challenges articulate a need for a clear concept, definition and approach for monitoring - including relation to the formal education system (year of

educational attainment, basic education, etc.). The country profiles also provided a set of useful recommendations related to:

- the use of quantitative and qualitative data;
- literacy as a continuum (where literacy levels are measured on a continuous score);
- multiple literacies, which would include different fields (and involve various partners in monitoring process)
- concrete aspects of literacy assessment

Global comparability of literacy data remains an important issue. There seems to be a convincing argument why setting a global target in the way it is done on the SDG agenda is not useful: it's arbitrary; it doesn't relate to the national contexts; and it is insensitive and unresponsive to the varying significance and size of the illiteracy problem across countries.

Yet, a common theoretical background could provide agreed fields of literacy and, as a consequence, common types of indicators within these fields. Not only would that enable countries to measure the progress in a more informed and reliable way, but it would also increase the possibilities and mechanisms for mutual learning, enable broader partnerships and strong alliances for the implementation of literacy programs and their monitoring. Most importantly, a genuine and effective common approach would “convince the actors across the development agenda of the central catalytic role of literacy and wider adult learning” (Tuckett and Popović, 2015, 30).

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ANNEX

Identification and measurement of the activities of non-formal learning

Classifications of the learning activities within the three basic categories of life-long learning are very different. Classification of formal learning activities are relatively simple. In national and international surveys on participation in adult education, they are usually given as the data on participation on various levels of formal education, or participation in programs that lead to certification or qualification (IALS , ALL, LFS, PIAAC, AES).

Identification and measurement of the activities of non-formal learning, however, is more complex. This is because of significant differences in the education systems of individual countries, as well as the different approaches of international organizations. The latter classify learning activities, and monitor and evaluate participation in education and learning based on their own frameworks. The International Standard Classification of Education (ISCED) offers the following definition and types of activities:

Depending on country contexts, it may cover educational programmes to impart adult literacy, basic education for out of school children, life-skills, work-skills, and general culture. Non-formal education programmes do not necessarily follow the ‘ladder’ system, and may have a differing duration” (UNESCO and UIS, 2009)

Activities of non-formal learning

AES ¹⁵	LFS ¹⁶	PIAAC ¹⁷
<ul style="list-style-type: none">• Private lessons or courses (classroom instruction, lecture	<ul style="list-style-type: none">– Courses,– Seminars,– Conferences,	<ul style="list-style-type: none">– Courses conducted through open or distance education;

¹⁵ AES - Adult Education Survey (European Commission and Eurostat, 2007).

¹⁶ LFS - Labour Force Survey (European Commission , 2005).

¹⁷ PIAAC (OECD, 2011).

<ul style="list-style-type: none"> • or a theoretical and practical course); • Courses conducted through open and distance education; • Seminars or workshops; • Guided on-the-job training 	<ul style="list-style-type: none"> – Received private lessons or instructions outside the regular education system. 	<ul style="list-style-type: none"> – Organized sessions for on-the-job training or training by supervisors or co-workers; – Seminars or workshops; – Courses or private lessons;
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Due to its heterogeneity, informal learning is even more difficult for conceptualization and methodological identification. It could refer to the activities in everyday life, work-related activities, or activities of self-directed learning (see OECD, 2012; Statistic Canada, 2002; Statistics Canada, 2002a; European Commission and Eurostat, 2007).

Activities of informal learning

AES ¹⁸	OECD ¹⁹	IALS ²⁰
<ul style="list-style-type: none"> • Learning from a family member, friend or colleague; • The use of printed material 	<ul style="list-style-type: none"> • Consultation of books, manuals, or audio cassettes, videos and other documents, in order to develop skills for job; • The use of computer software and the Internet in particular for the 	<ul style="list-style-type: none"> • Visit trade fairs, professional conferences or congresses. • Attend short lecture, seminars, workshops or special talks that were not part of a course. • Read manuals, reference books, journals or other

¹⁸ AES - Adult Education Survey (European Commission and Eurostat, 2007).

¹⁹ PIAAC (OECD, 2012).

²⁰ IALS - International Adult Literacy and Skills Survey (Statistics Canada, 2002)

<p>(books, professional journals, etc.);</p> <ul style="list-style-type: none"> • The use of computers (online or offline); • Learning via television, radio, video; • Museum visit; • Visiting learning centers, including libraries; 	<p>acquisition of knowledge for the job;</p> <ul style="list-style-type: none"> • Observation of the person performing job or task with the aim of developing own skills for job; • Obtaining advice from colleagues in the workplace with the aim of developing own skills for job; • Obtaining advice from a supervisor at the workplace with the aim of developing own skills for job; • Attend conferences, trade fairs and conventions that are related to the job; 	<p>written materials that were not part of a course.</p> <ul style="list-style-type: none"> • Go on guided tours such as museums, art galleries, or other locations. • Use computers or the internet to learn but not as part of a course. • Use video, television, tapes to learn but not as part of a course. • Learn by watching, getting help from or advice from others but not from course instructors. • Learn by yourself by trying things out, doing things for practice, trying different approaches to doing things. • Learn by being sent around an organization to learn different aspects of that organization.
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