

## EDUCATION AND SKILLS ONLINE ASSESSMENT

### The Online Version of PIAAC

#### A joint Initiative of the OECD and the European Union

#### WHAT IS EDUCATION AND SKILLS ONLINE?

➤ **Education & Skills (E&S) Online** is an assessment tool designed to provide individual level results that are linked to the PIAAC international measures of literacy, numeracy and problem solving in technology-rich environments. All results will be comparable to the measures used in PIAAC and can be benchmarked against the national and international results available for the participating countries.

#### WHO CAN TAKE THE ASSESSMENT?

➤ **E&S Online** has been developed and validated on a population ranging between 16 and 65 years of age. It can be used for students or out of school youth who are



interested in transitioning to post-secondary education and training or into the workforce. This assessment also can be used for adults of various ages who either wish to re-enter an educational or training environment or want to demonstrate their workforce readiness skills.

#### WHAT IS MEASURED?

➤ **E&S Online** measures a set of cognitive and non-cognitive skills that individuals need for full participation in modern societies. These skills and knowledge include being able to understand and use printed and electronic texts, reason with numbers, and solve problems in technology environments. Literacy and numeracy skills have been shown to be important foundation skills that are necessary for the development of higher order problem solving skills. The assessment also provides a measure of reading-component skills to better understand those who may demonstrate poor reading literacy skills. It also includes non-cognitive skills modules that allow individuals or organizations to obtain information on: skill use at work and at home, as well as health and well-being.

#### WHAT INFORMATION WILL BE PROVIDED?

➤ **E&S Online** will provide individuals and/or organizations with an easy-to-read report after the completion of the assessment. These reports will characterize the strengths and weaknesses in each cognitive area assessed. Scores will be reported in terms of described proficiency levels that capture the progression of task complexity and difficulty.

➤ **E&S Online** will also provide summary information in each non-cognitive area selected and tested. In addition to descriptive and summary information, individuals and/or organizations will be able to benchmark their results against the PIAAC results from their country and internationally.

#### **OECD Programme for International Assessment of Adult Competencies (PIAAC)**

PIAAC is an initiative of the OECD that assesses the proficiency of adults in key information processing skills essential for the participation in the information rich economies and societies of the 21<sup>st</sup> century - *literacy, numeracy and problem solving in technology rich environments.*

PIAAC will allow countries to analyse the level and distribution of skills among their adult populations as well as the extent of skills use in different contexts. A total of 33 countries have participated in this survey, which will allow for international benchmarking. First results will be available in October 2013.

#### **Participating Countries**

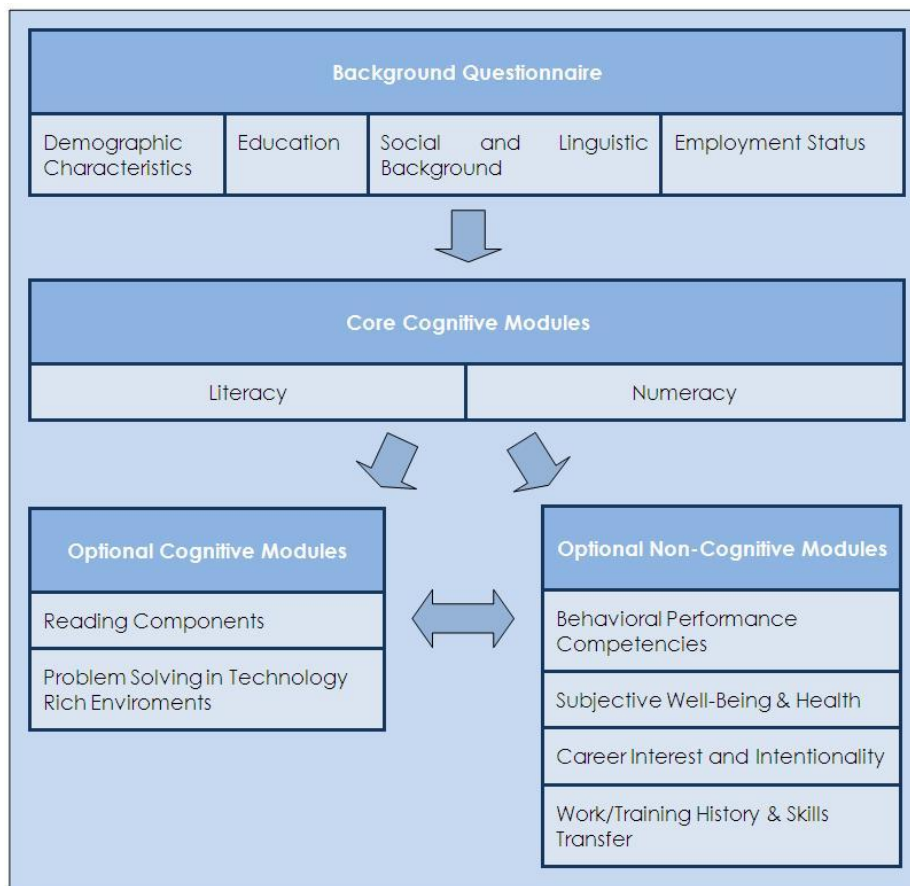
Australia, Austria, Belgium, Canada, Chile, \*Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece \*Indonesia Ireland, Israel, Italy, Japan, Korea, \*Lithuania, the Netherlands, New Zealand Norway, Poland, \*the Russian Federation, \*Singapore, the Slovak Republic, Slovenia, Spain, Sweden, Turkey, the United Kingdom, and the United States.

\* OECD Partner countries

## HOW IS THE ASSESSMENT ADMINISTERED?

- **E&S Online** is a fully computerized measure of cognitive and non-cognitive skills. It is downloadable on demand over the internet and incorporates flexibility and adaptability to provide reliable and valid measures of critical skills associated with work, home and the community.
- **E&S Online** allows individuals to choose which skills they want to assess. As a baseline, individuals receive a core set of background questions followed by a set of tasks providing information related to their literacy and numeracy skills. They can elect to get information on their reading-component skills, problem-solving skills and on selected non-cognitive skills.
- **E&S Online** is available in several languages: English (US, Canada, Ireland, UK), French (France, Canada), Spanish (Spain, US), Czech, Italian and Japanese.

## The Main Elements of Education & Skills Online Assessment



### Background information

The background questionnaire contains questions regarding to demographic characteristics, social and linguistic background, education, employment status. The questionnaire has been designed to give information concerning issues such as the relationships between education and training and skills development, and also to benchmark the performance of test-takers against that of individuals with similar backgrounds and experiences.

### Non –cognitive modules

The non-cognitive modules of E&S Online provide information about aspects of the personality, interests and work history of test-takers. For individuals, this may help them think about their occupational choices. For institutional users this will provide information that helps understand individuals' results and to compare them with those of like individuals. These modules provide customizable measures that assess critical determinants of work training and work place success:

- Behavioral Performance Competencies
- Subjective Well-Being & Health
- Career Interest and Intentionality
- Work/Training History & Skills Transfer

## Summary of assessment domains in the Education and Skills Online Assessment

### The assessment cognitive modules

The direct-assessment component of the survey evaluates the skills of adults in two core domains - literacy and numeracy - and two optional components – reading components and problem solving in technology-rich environments. These are considered to constitute “key” competencies in the sense that they provide a foundation for the development of other, higher-order cognitive skills and are prerequisites for gaining access to and understanding of specific domains of knowledge. In addition, these skills are necessary in a broad range of contexts, from education through work to everyday life.

	Literacy	Numeracy	Problem solving in technology-rich environments
Definition	Ability to understand, evaluate, use and engage with <i>written texts</i> to participate in society, to achieve one’s goals, and to develop one’s knowledge and potential.	Ability to access, use, interpret and communicate mathematical information and ideas in order to engage in and manage the mathematical demands of a range of situations in adult life.	Ability to use digital technology, communication tools and networks to acquire and evaluate information, communicate with others, and perform practical tasks.
Content	<p>Texts are characterised by :</p> <p>Medium</p> <ul style="list-style-type: none"> <li>▶ <i>print-based</i></li> <li>▶ <i>digital</i></li> </ul> <p>Format:</p> <ul style="list-style-type: none"> <li>▶ <i>Continuous or prose texts</i> (narration, argumentation or descriptions)</li> <li>▶ <i>Non-continuous or document texts</i> (tables, lists, graphs)</li> <li>▶ <i>Mixed texts</i> (combination of prose and document elements )</li> <li>▶ <i>Multiple texts</i> (a juxtaposition or linking of independently generated elements)</li> </ul>	<p>Mathematical content, information and ideas:</p> <ul style="list-style-type: none"> <li>▶ <i>Quantity and number</i></li> <li>▶ <i>Dimension and shape</i></li> <li>▶ <i>Pattern, relationships, change</i></li> <li>▶ <i>Data and chance</i></li> </ul> <p>Representations of mathematical content:</p> <ul style="list-style-type: none"> <li>▶ <i>Objects and pictures</i></li> <li>▶ <i>Numbers and symbols</i></li> <li>▶ <i>Diagrams, maps, graphs, tables</i></li> <li>▶ <i>Texts</i></li> <li>▶ <i>Technology-based displays</i></li> </ul>	<p>Technology:</p> <ul style="list-style-type: none"> <li>▶ <i>Hardware devices</i></li> <li>▶ <i>Software applications</i></li> <li>▶ <i>Commands and functions</i></li> <li>▶ <i>Representations</i> (text, graphics, video)</li> </ul> <p>Nature of problems:</p> <ul style="list-style-type: none"> <li>▶ <i>Intrinsic complexity</i> (number of steps, alternatives required for solution, complexity of computation and/or transformation, number of constraints)</li> <li>▶ <i>Explicitness of the problem statement</i> (largely unspecified or described in detail)</li> </ul>
Cognitive strategies	<ul style="list-style-type: none"> <li>▶ Access and identify</li> <li>▶ Integrate and interpret (relating parts of text to one another)</li> <li>▶ Evaluate and reflect on</li> </ul>	<ul style="list-style-type: none"> <li>▶ Identify, locate or access</li> <li>▶ Act upon and use (order, count, estimate, compute, measure, model)</li> <li>▶ Interpret, evaluate and analyse</li> <li>▶ Communicate</li> </ul>	<ul style="list-style-type: none"> <li>▶ Setting goals and monitoring progress</li> <li>▶ Planning</li> <li>▶ Acquiring and evaluating information</li> <li>▶ Using information</li> </ul>
Contexts	<ul style="list-style-type: none"> <li>▶ Personal</li> <li>▶ Work-related</li> <li>▶ Community</li> <li>▶ Education</li> </ul>	<ul style="list-style-type: none"> <li>▶ Everyday life</li> <li>▶ Work-related</li> <li>▶ Society &amp; Community</li> <li>▶ Education</li> </ul>	<ul style="list-style-type: none"> <li>▶ Personal</li> <li>▶ Work-related</li> <li>▶ Community</li> </ul>

## WHO ARE THE POTENTIAL USERS?

- Researchers who would like to have access to tests that could allow benchmarking to deepen and complement the results of their assessment efforts at a national or regional level
- Organisations concerned with adult literacy and numeracy who seek literacy level benchmarks to compare with results of training
- Universities, vocational education and training centers can use E&S Online as a diagnostic tool for incoming students and their literacy course needs
- Government organisations interested in assessing learning needs for unemployed, prison populations or economically disadvantaged
- Public or private companies who want to use the results to help with recruitment and candidate assessment and to identify training opportunities for their workforce
- Students or out-of-school youth transitioning to post-secondary education/training who can use the results to assess their individual course needs
- Adults of any age who either wish to re-enter an educational or training environment or want to demonstrate their workforce readiness skills
- Any individuals who might want to compare their results with those obtained at the national and international level or to determine whether their skills have improved over time as the result of educational efforts.

## CONTACT INFORMATION

**Website:** [www.oecd.org/site/piaac](http://www.oecd.org/site/piaac)

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**DID YOU KNOW** *Some adults who do poorly on literacy surveys have been shown to have strong basic reading and writing skills, but are unable to apply these skills to real-life situations.*

