

STEP Skills Measurement Study

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Employability and the G20 Training Strategy

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The World Bank



Presentation outline



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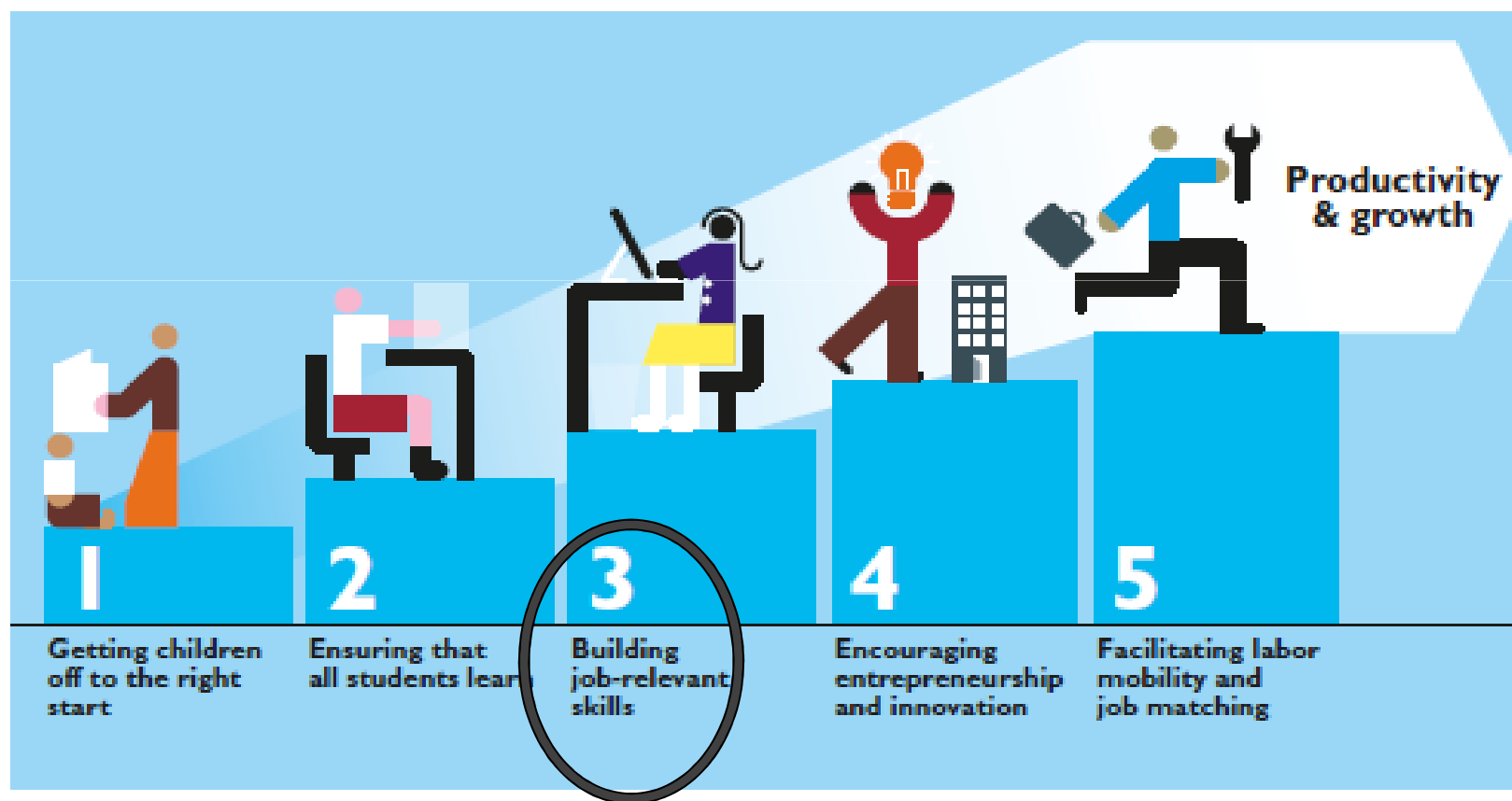
1. Motivation



- ❑ Skills are at the core of improving employment outcomes and increasing productivity and growth
- ❑ Commonly used measures of education and training are only a small part of what makes an individual's human capital
- ❑ Policymakers need better information about the distribution of different types of skills in the labor force and of the demands for those skills from different economic sectors

2. Context

Skills toward Employability and Productivity (STEP):
An Integrated Framework for Skills Development



3. The Research Program



A. Objectives

- ❑ Create harmonized instruments to collect internationally comparable data on skills in low and middle-income countries
- ❑ Build country capacity for data collection and analysis
- ❑ Support countries in using the data to inform policy and program design

3. The Research Program



B. Policy Questions

- ❑ What are the current levels and distribution of technical, cognitive, and non-cognitive skills in the labor force?
- ❑ How do these skills affect labor market outcomes?
- ❑ What is the extent of skills mismatches?
- ❑ What interventions can countries consider to step up the supply of skills to improve employability and productivity?

3. The Research Program



C. Survey Instruments

Household survey

- ❑ Cognitive skills
- ❑ Non-cognitive skills
- ❑ Skills used at work
- ❑ Background characteristics

Employer survey

- ❑ Skills used by the current workforce
- ❑ Information regarding training, compensation and promotion
- ❑ Skills sought when hiring new workers
- ❑ Constraints faced and methods used in hiring workers with desired skills

3. The Research Program

D. Indicators



First generation

- ▣ Outputs
- ▣ Emphasis on supply
- ▣ Data mainly from administrative records; standard labor force surveys
- ▣ Examples

Enrollment

Graduation

Employment status

Second generation

- ▣ Outcomes
- ▣ More emphasis on demand
- ▣ Direct assessments of students (i.e. PISA, TIMMS), tracer studies and enterprise surveys
- ▣ Examples

Student test scores

Placement rates

Employers' satisfaction

Employers' perception of skills constraints

Third generation

- ▣ Impacts
- ▣ Emphasis on matching supply and demand
- ▣ Assessment of adult competencies and corresponding employer surveys (e.g. PIAAC, LAMP, STEP)
- ▣ Examples

Benchmarking skill provision

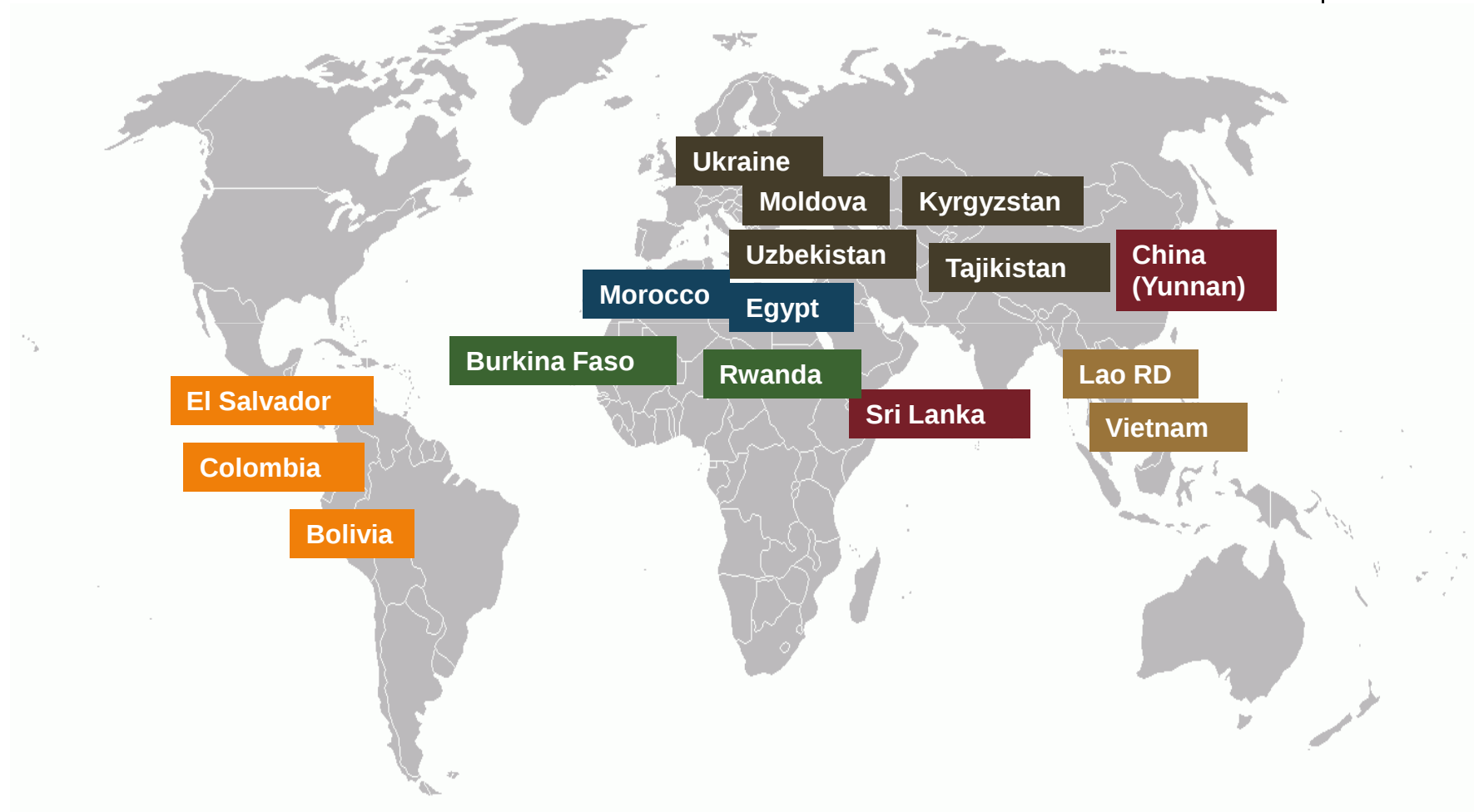
Mastery of core skills

Learning and innovation skills

Information , media and technology skills

Skills matching mechanisms

4. Participating Countries (16)



5. Experts Panel



International Agencies

- ILO**
 - Chris Evans-Klock
 - Laura Brewer
 - Olga Srietska-Illina
- OECD**
 - Stefano Scarpetta
 - Mark Keese
 - Andreas Schleiger
 - William Thorn
 - Michael Handel (and Northeastern U)
- UNESCO**
 - Cesar Guadalupe
 - Alcyone Vasconcelos
- IEA**
 - Paula Korsnakova
- IADB**
 - Marina Bassi
 - Matias Busso
- EU**
 - Nathalie Greenan

Academics

- Angela Duckworth (U Penn)
- Armin Falk (Germany)
- Flavio Cunha (U Penn)
- Francis Green (UK)
- Hartmut Lehmann (U Bologna)
- John Earle (GMU)
- Kees Hammink (Netherlands)
- Ken Dodge (Duke U)
- Linda Gottfredson (Uof Delaware)
- Nancy Guerra (UC Riverside)
- Oliver John (UC Berkeley)
- Peter Elias (U Warwick)
- Rodrigo Pinto (U Chicago)
- Victoria Benet-Martinez (UC Riverside)

6. Implementation



❑ Survey Sample & Length

Household Survey

- Representative at national level (at least urban population).
- From the household roster an individual (15-64) will be selected at random to complete the three skills modules and the background questionnaire
- Core survey lasting about 120 minutes (30 minutes for the background questionnaire and 90 minutes for the three skills modules).

Employer Survey

- Representative at least of formal firms
- Options for sampling informal firms
- 45 minutes

❑ International Comparability

- The core questionnaire will be implemented in all countries
- Guidelines will seek to standardize sampling and implementation protocols across countries

6. Implementation (continued)



□ Data Collection & Analysis

- Data collection will be contracted out to specialized Firms or Agencies (including Government institutions) in each country
- Firms will provide descriptive statistics and some analysis of the data; the World Bank will carry out the multi-country analysis with support from a range of experts

□ Quality Assurance

- Mechanisms to promote quality include: providing robust implementation materials and guidance, training programs for Firm staff and data collection operators, engaging relevant technical expertise to provide support to participating countries

7. Timeline



Task

Timeframe

- | | |
|---|---------------------------|
| ❑ Launch research program | October 2010 |
| ❑ Finalize core survey instruments | June 2011 |
| ❑ Train, pilot and validate survey instruments | July-October 2011 |
| ❑ Adjust and field survey instruments | August 2011-February 2012 |
| ❑ Analyze data and prepare country case studies | November 2011-May 2012 |
| ❑ Write multi-country report | June-July 2012 |
| ❑ Dissemination | August-November 2012 |



Thank You!

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Additional Slides

Measuring Cognitive Skills



Two approaches:

❑ Direct Assessment

- Test of reading literacy; linkable to the PIAAC scale
- Module under development by the Education Testing Service (ETS)

Examples

- **Prose Items-** Read the label on a medicine bottle and answer “What is the maximum number of days you should take this medicine?” and “List three situations for which you should consult a doctor”

❑ Self-Reported Assessment

- Measures of literacy and numeracy

Examples

- Do you ever use or calculate fractions, decimals or percentages?
- Do you ever use more advanced math, such as complex algebra, geometry, trigonometry, calculus, or inferential statistics?

Measuring Non-Cognitive skills



- ❑ Non- Cognitive Skills
 - Assessment of social literacy, including personality traits and behaviors
 - Big Five Inventory, Self-Control, Core Self-Evaluation, GRIT
 - Time and risk preferences

Examples

In a scale of 1 to 5, I see myself as someone who:

- Pursues my goals in spite of setbacks
- Is inventive

Measuring Skills Used at Work



❑ Self-reported

- Measures of competence to perform defined tasks

Examples

- As part of your work, do you use a computer to do data entry or fill out forms?
- How much of your workday is spent doing physical tasks such as standing, handling objects, operating machinery or vehicles, or making or fixing things with your hands?

Employer Survey Questions



❑ Skills Used- Examples

Example

- What is the highest level of computer use needed in this job? (5 levels)

❑ Hiring practices

Example

- Includes quantitative evaluation of hiring difficulties, methods and selection criteria