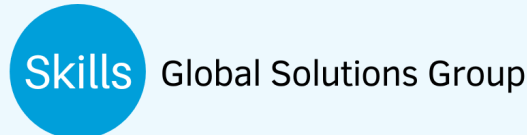


# SKILLS4DEV



JUNE 2023 | ISSUE 5

## How Foundational Skills are Critical for *any* Occupation

Dear Skills community,

As we conclude the Fiscal Year, we are thrilled to present the fifth issue of the *Skills4Dev Knowledge Digest*. In this edition, we explore the increasingly relevant topic of **foundational skills** and their critical role in enabling other skills such as advanced cognitive and job-specific technical skills.

We aim for this edition to become the go-to place for those interested in learning about foundational skills and other subtopics related to these skills. It presents a compilation of resources that highlight the importance of developing and remediating foundational skills throughout the individual's lifecycle. It also includes a list of Skills GSG services and resources to help you with your work.

As always, we would love to hear from you! Let us know if you find this issue helpful. Please share your ideas, suggestions, questions, or collaboration opportunities at [skillsgsg@worldbankgroup.org](mailto:skillsgsg@worldbankgroup.org). Learn more about what the GSG can do for you at the end of this digest.

Enjoy the reading!

Table of Contents

1. **Featured Works on Foundational Skills.** Recent publications on this month's topic.

2. **Essential Reading.** The must-reads/favorite academic reads of our guest editor on foundational skills.

3. **What's Brewing at the WBG?** World Bank work around the month's topic.

4. **Help Desk.** Various resources to keep you up to date and support your skills-related work.

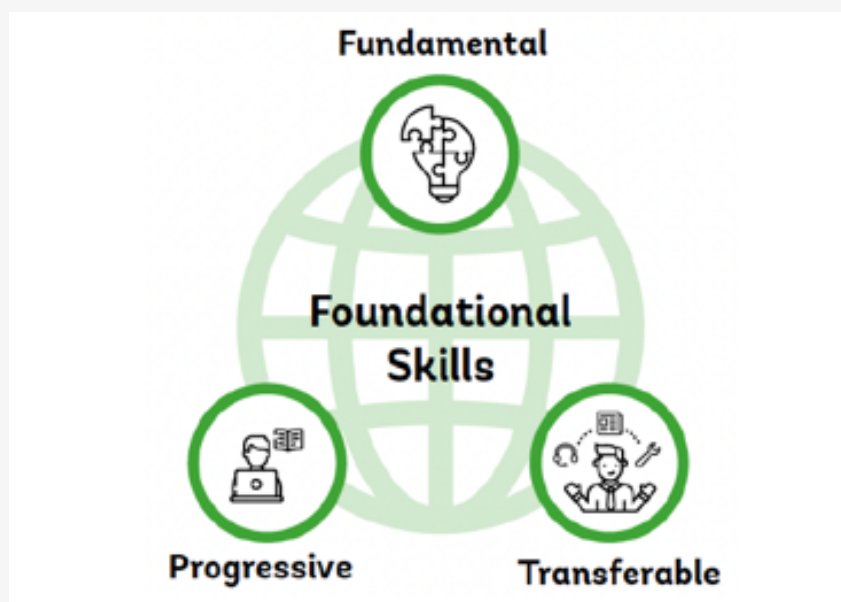
## Editorial

There has been a surge of interest from around the world in fostering foundational skills among children and youth to improve their livelihood and wellbeing. The massive scale of learning poverty and the devastating effects of the COVID-19 pandemic on learning have caught the attention of policymakers and educators, particularly from low and middle-income countries. Some countries, including Brazil, Nigeria, and Pakistan, have taken extraordinary measures to promote foundational learning to improve reading literacy, numeracy, digital skills, and socio-emotional skills for the most vulnerable groups.

### What are foundational skills?

While there is not a consensus on the definition of foundational skills, they can be characterized as embodying three core features (see Figure 1). First, these skills are *fundamental* building blocks to perform well any task. They are also *progressive* in that they allow individuals to further develop more advanced skills, including those that are associated with complex technical tasks. Moreover, they are *transferable* as they allow individuals to perform better on tasks irrespective of their occupation, employer, or everyday life situation they may face. Therefore, foundational skills are not only pre-conditions for individuals to engage in any occupation, but also enabling factors for acquiring advanced job-specific technical skills.

Figure 1: Main Characteristics of Foundational Skills



## Foundation skills are *also* critical for high-skilled occupations

While most countries have a large proportion of youth and adults who have not achieved minimum proficiency in foundational literacy and numeracy, policy makers globally are increasingly concerned about the need to foster advanced job-specific technical skills that are associated with high-skilled occupations. The underlying assumption is that the most pervasive skill needs (and mismatches) are occupation-specific, and in fields such as software development, AI/Big data, financial management, and network administration.

Is this really the case? The [Future of Jobs 2023 report](#) by the World Economic Forum sheds light on this issue. Based on a large-scale survey that collected information on skills needs from a range of enterprises in upper-middle and higher-income countries, data show that the top 10 “core skills” and “reskilling and upskilling priorities for 2023-27” were associated mainly with foundational skills such analytical thinking, technological literacy, creativity, curiosity, dependability, resilience, and self-awareness. In fact, the only advanced job-specific technical skills that featured in the top 10 was “AI and big data”.

There is no-doubt that preparing advanced job-specific technical skills is important to meet the occupational needs for the high-value-added sectors. However, foundational skills matter as much, or even more, given their role in fostering advanced cognitive and job-specific technical skills. In this context, developing skills for high-skilled occupations is not only the business of TVET, higher education, and adult learning institutions. Parenting, early childhood, and basic education, as well as non-formal and informal learning play equally important roles. As countries strive to address the occupational skill needs of the 21st century economy, education and training policies should reflect on the principle that foundational skills are indispensable for *any* occupation.



**Koji Miyamoto**

Skills4Dev Guest Editor

Senior Economist,  
Education Global Practice



**Diego Angel-Urdinola**

Skills4Dev Editor

Senior Economist,  
Global Lead for Skills GSG

## FEATURED WORKS ON FOUNDATIONAL SKILLS



### [The Future for Jobs Report 2023](#)

World Economic Forum |  
Insight Report | 2023 | Global

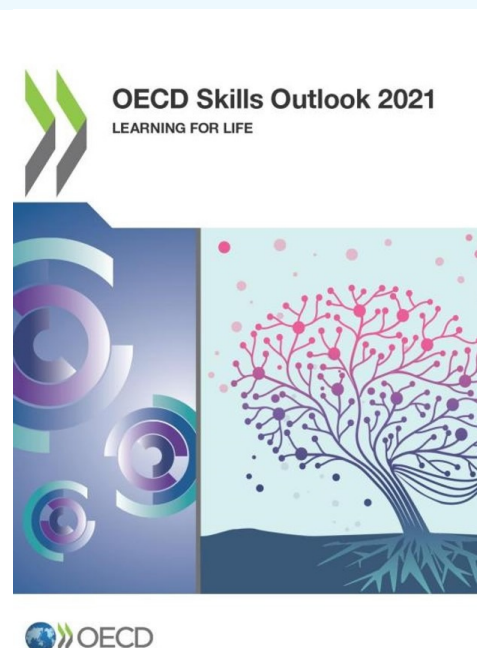
This document is the fourth volume of a series' analyses that explores **the evolution in jobs and skills over the next five years**. It studies employers' expectations to provide new insights on how socio-economic and technology trends will shape the workplace of the future.



### [Putting Skills First: A Framework for Action](#)

World Economic Forum &  
PwC | Report | 2023 | Global

Jointly produced by the World Economic Forum and PwC, this report presents a **framework for action** which businesses and governments can use to shape their **skills-first approach**. This report is the first in a two-part series. The second report will be launched at the World Economic Forum's 2024 Annual Meeting.



### [OECD Skills Outlook 2021: Learning for Life](#)

OECD | Report | 2021 | Global

This report discusses how **public policies are crucial for lifelong learning**. Policies should promote high-quality education, effective vocational education and training, and continuous work-based training. Policies and programs should help create opportunities for skill development and foster a life-learning culture.

## ESSENTIAL READING





### [Global Universal Basic Skills: Current Deficits and Implications for World Development](#)

Gust et al. | Working Paper  
| 2022 | Global

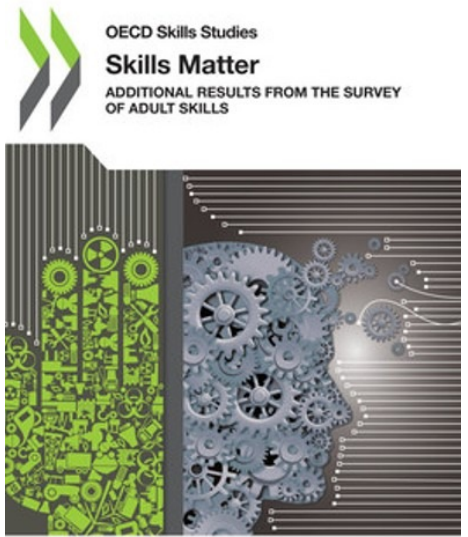
The paper maps achievement onto a common (PISA) scale, based on the micro data of international and regional achievement tests. It then estimates the share of children not achieving basic skills for 159 countries and finds that at least **two-thirds of the world's youth do not reach basic skill levels**, ranging from 24% in North America to 89% in South Asia and 94% in Sub-Saharan Africa.



### [Returns to Skills around the World: Evidence from PIAAC](#)

Hanushek et al. | Working Paper | 2013 | Global

This paper provides new insights into **the value of skills in different economic settings** by developing estimates of the earnings returns to cognitive skills across the entire labor force for 22 countries. Returns to skills are systematically lower in countries with **higher union density, stricter employment protection, and larger public sector shares**.



### [Skills Matter: Additional Results from the Survey of Adult Skills](#)

OECD | Report | 2019 | Global

This volume reports results from 33 countries and regions that participated in the 1st and 2nd round of the Survey of Adult Skills in 2011-12 and in 2014-15. It describes adults' proficiency in three information-processing skills, and examines **how proficiency is related to labor-market and social outcomes**.

## WHAT'S BREWING AT THE WBG?



### [Development of Foundational Skills for Young People: a Priority after the COVID-19 Pandemic](#)

Angel-Urdinola | Blog | 2023 |  
Global

The blog post emphasizes the **importance of developing foundational skills for young people after the COVID-19 pandemic**. It highlights the need for individuals to possess a diverse skill set to thrive in the labor market. While traditional education systems focused on occupation-specific expertise, modern education must prioritize the development of foundational skills that can be applied to multiple professions and enable adaptation to emerging technologies.



### [Can Digital Personalized Learning for Mathematics Remediation Level the Playing Field in Higher Education? Experimental Evidence from Ecuador](#)

Angel-Urdinola et al. | Working  
Paper | 2023 | Ecuador

This paper presents the results of a randomized controlled trial assessing the effects on academic outcomes of a Digital Personalized Learning Software for mathematics remediation (the ALEKS software) offered to first-year students entering technical and technological higher education programs in Ecuador amid the COVID-19 pandemic. The results suggest that **Digital Personalized Learning Software** can be a **cost-effective solution for math remediation** with potential for large-scale application.



### [Policy Forum: Developing Work-readiness for the Future of the Thai Labor Market Kicked Off](#)

EEF | Blog | January 2023 |  
Thailand

This post discusses a forum focused on **addressing work readiness in the Thai labor market**. The forum examined strategies and policies to equip individuals with the necessary skills and competencies to thrive in the evolving job landscape. The blog emphasizes the importance of bridging the gap between education and employment by aligning curriculum with industry needs and promoting vocational training.

## [Policy Forum: The Role of Area-based Education in Fostering Foundational Skills for the Future Thai Labor Market](#)

EEF | Blog | 2023 | Thailand

This post discusses a forum that explores the significance of area-based education in **developing foundational skills for the future labor market in Thailand**. The forum highlighted the importance of providing quality education in local communities and tailoring it to meet the specific needs and challenges of each area. The blog emphasizes the role of area-based education in fostering foundational skills such as critical thinking, problem-solving, and creativity.

## [Critical Occupations List \(MyCOL\) 2022/2023: Sectors Deep Dive For The Malaysia National Skills Registry](#)

Talent Corp and the ILMA | Report | 2023 | Malaysia

The Government of Malaysia's annual report monitors skills imbalances and coordinates human capital development policies. It defines **critical occupations based on three criteria: skilled, sought-after, and strategic**. This edition covers 37 occupations, and focuses on Aerospace, Construction, and Manufacturing (Food Processing) sectors.

## [Stop Solving only Half the Problem: Human Capital through the Eyes of the Gambian Youth](#)

Hilger et al. | Blog | 2023 | The Gambia

This blog argues that focusing only on supplying youth with skills will only solve “half the problem” of youth unemployment in The Gambia. “Enabling environment” is the other half of the problem and can only be achieved through cross-sectoral collaborations. **Strengthening human capital in The Gambia requires a whole-of-government and whole-of-World-Bank approach**, with strong collaboration inside and outside of the human development sectors.

## [College Majors and Skills: Evidence from the Universe of Online Job Ads](#)

Hemelt, et.al. | Discussion Paper | 2021 | United States

This paper documents the skill content of college majors as perceived by employers and expressed in the near universe of U.S. online job ads. **Cross-major differences in skill profiles explain considerable wage variation**, with little role for within-major differences in skills across areas. College majors can thus be reasonably conceptualized as portable bundles of skills.

## [Making Entrepreneurs: Returns to Training in Hard versus Soft Business Skills](#)

Chioda, et.al. | Working Paper | 2021 | Uganda

This paper studies the medium-term impacts of the **Skills for Effective Entrepreneurship Development (SEED) program**, an innovative in-residence 3-week mini-MBA program for high school students modeled after western business school curricula and adapted to the Ugandan context. It was found that training was effective in improving both hard and soft skills, but only soft skills were directly linked to improvements in self-efficacy, persuasion, and negotiation.



### [The Skills Balancing Act in Sub-Saharan Africa: Investing in Skills for Productivity, Inclusivity, and Adaptability](#)

Arias et al. | Report | 2019 | Sub-Saharan Africa

Despite economic growth, declining poverty, and investments in skills-building, too many students in too many countries in Sub-Saharan Africa are not acquiring the foundational skills they need to prosper in an increasingly competitive global economy. This report examines the **balancing act that individuals and countries face in making productive investments** in both a wide range of skills and a wide range of groups so that Sub-Saharan Africa will thrive.

### [Skill Requirements Across Firms and Labor Markets: Evidence from Job Postings for Professionals](#)

Deming and Kah | Working Paper | 2018 | United States

This paper studies variation in skill demands for professionals across firms and labor markets. There is **substantial variation in skill requirements**, even within narrowly defined occupations. Focusing particularly on cognitive and social skills, it found **positive correlations between each skill and external measures of pay and firm performance**.

### [Skills for Social Progress: The Power of Social and Emotional Skills](#)

OECD | Report | 2015 | Global

This report presents a synthesis of the OECD's analytical work on the role of socio-emotional skills and proposes strategies to raise them. It discusses how policy makers, schools and families **facilitate the development of socio-emotional skills through intervention programmes, teaching and parenting practices**.

### [Fostering and Measuring Skills: Improving Cognitive and Non-cognitive Skills to Promote Lifetime Success](#)

Kautz, et.al. | Working Paper | 2014 | Global

This paper reviews the recent literature on measuring and fostering cognitive and non-cognitive skills. **IQ tests and achievement tests do not adequately capture noncognitive skills** that are valued in the labor market, in school, and in many other domains. For many outcomes, their predictive power rivals or exceeds that of cognitive skills.

## SKILLS GSG - HELP DESK



Visit our [website](#) and learn more about our work on skills.



Access the previous *Skills4Dev* Knowledge Digest editions:

> [May 2023 | Socioemotional Skills](#)



- > [April 2023 | Global Healthcare Workers](#)
- > [March 2023 | Career Guidance](#)
- > [February 2023 | EdTech for TVET](#)



Receive updates about events organized by the Skills GSG by signing up [here](#).



[Sign up](#) to receive future editions of the *Skills4Dev* Knowledge Digest.



Do you have any collaboration opportunities, want to share your recent publication, or have a skills-related question? Contact us at [skillsgsg@worldbankgroup.org](mailto:skillsgsg@worldbankgroup.org).

## Key resources to support the skills-related work within the WB community (World Bank staff only)



[Skills GSG intranet site](#) (FURL: [skills/](#))



[Thematic Knowledge Digest Archive](#)



[Office Hours](#) with Skills Global Leads



[Events](#) material and recordings



[Consultant Roster](#)



[Questions & Answers](#)

## CONTRIBUTORS

This knowledge digest is a product of the Skills Global Solutions Group, co-led by Education Global Practice and Social Protection & Jobs Global Practice. Other contributors to this edition are Judith Perez (Skills4Dev Knowledge Digest Coordinator) and Gemma Rodon (Education Analyst).

Copyright © 2023 World Bank Group, All rights reserved.

Our mailing address is:

World Bank Group - Skills CSG · 1818 H Street NW · Washington, DC 20433 · USA