



Education in a Changing World: Implications for TVET

Yidan Wang
Beijing, China
December 2, 2013

Disclaimer:

The views expressed in this document are those of the author, and do not necessarily reflect the views and policies of the Asian Development Bank (ADB), its Board of Directors, or the governments they represent. ADB does not guarantee the accuracy of the data included in this document, and accept no responsibility for any consequence of their use. By making any designation or reference to a particular territory or geographical area, or by using the term "country" in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

Outline

I. Understanding the changing context

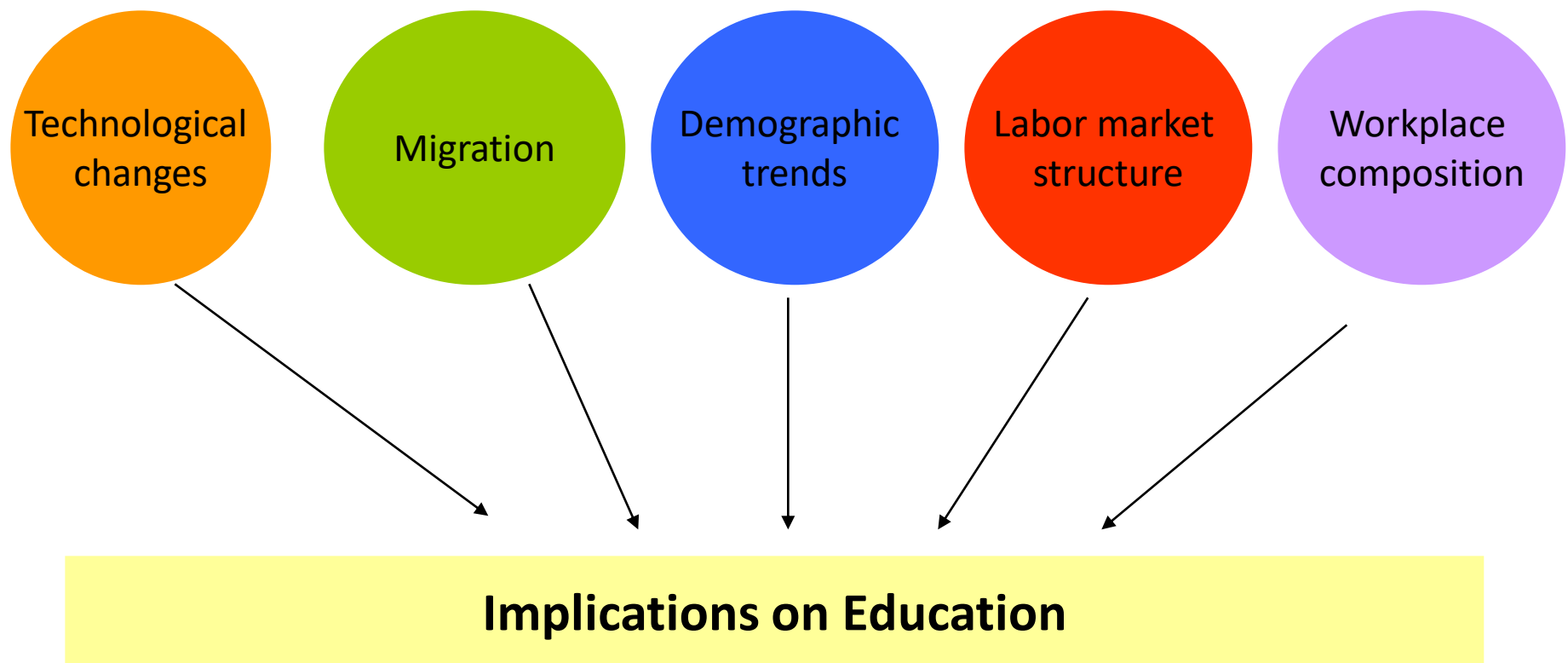
II. Flexibility

III. Skills

IV. Employability

V. Conclusions

I. Understanding the changing context



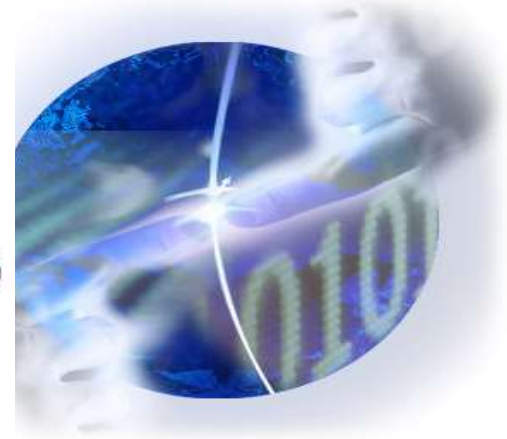
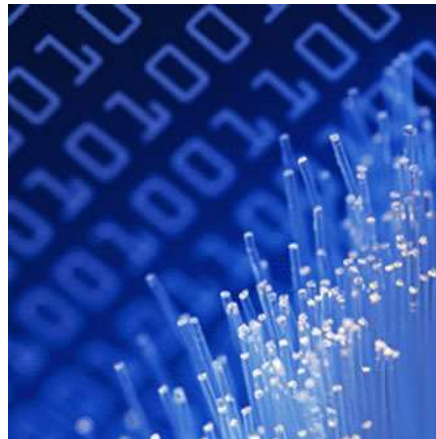
I. Understanding the changing context

Technological changes

- Computers have replaced many human tasks
- Technologies have shortened production cycle and increased productivity

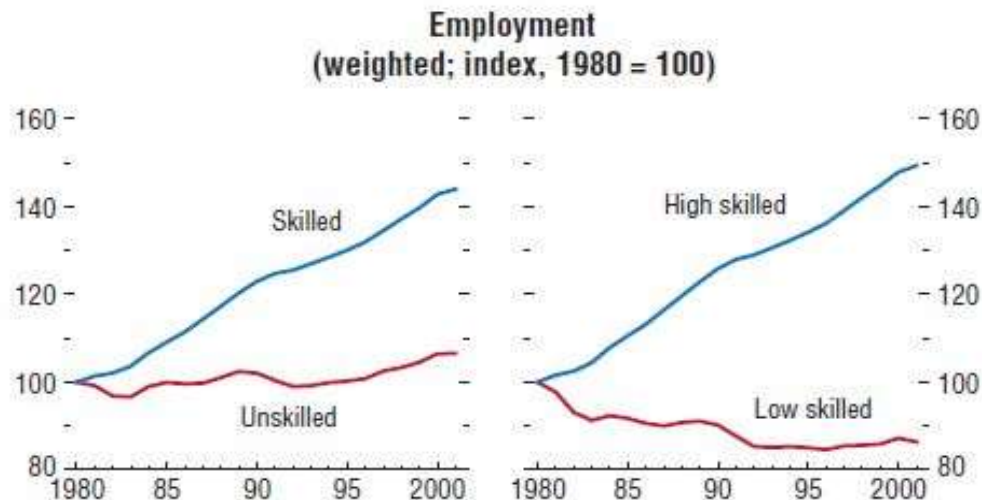


- Increased demand for high skilled workforce



I. Understanding the changing context

Demands for skilled and unskilled workforce in employment



Sources: Haver Analytics; International Labor Organization, Labor Statistics Database; OECD, Employment and Labour Market Statistics, National Accounts Statistics, and STAN Industrial Database; United Nations, *National Accounts Statistics* (2004); and IMF staff calculations.

¹For the analysis by skill level, advanced economies include Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Norway, Portugal, Sweden, the United Kingdom, and the United States; weighted using series on GDP in U.S. dollars from the World Economic Outlook database.

I. Understanding the changing context

Trends in migration:

- International migration (210 million): skilled workers
- Domestic migration (740 million): unskilled worker



Migrants' skills training
Education of their children



I. Understanding the changing context

Demographic trends

Working-Age Population by Region, 2010–2050

<i>Regions</i>	<i>2010 (billions)</i>	<i>2050 (billion)</i>	<i>Increase/decrease (%)</i>
North America	0.23	0.27	+16 %
Latin America and the Caribbean	0.39	0.49	+26%
Europe	0.50	0.38	-23%
Africa	0.58	1.3	+125%
Asia	2.80	3.40	+22%
Oceania	0.02	0.03	+31%

Source: UNDP 2009.

I. Understanding the changing context

Labor market structure and employment

- Less people work in agriculture
- More people work in service sectors



Language skills, management, inter-personal relations, problem solving and decision-making



I. Understanding the changing context

World and Regional Estimates of Employment by Sector

Both Sexes	Employment in agriculture (%)		Employment in industry (%)		Employment in services (%)	
	1996	2006	1996	2006	1996	2006
WORLD	41.9	36.1	21.1	21.9	37.0	42.0
Developed Economies and European Union	6.2	4.2	28.5	24.7	65.3	71.2
Central & South-Eastern Europe (Non-EU) & CIS	27.2	20.3	28.7	25.8	44.1	53.8
East Asia	48.5	40.9	24.3	25.6	27.2	33.5
South-East Asia and the Pacific	51.0	45.4	16.5	18.6	32.5	36
South Asia	59.7	49.4	15.2	21.0	25.1	29.6
Latin America & the Caribbean	23.1	19.6	20.7	20.8	56.1	59.6
North Africa	36.5	34.4	19.8	20.0	43.7	45.6
Sub-Saharan Africa	74.4	65.9	7.5	10.0	18.1	24.1
Middle-East	21.1	18.1	25.2	25.6	53.7	56.3

I. Understanding the changing context

Workplace composition

Change from 10% leads and 90% follows in industrial society



Less hierarchy and multiple tasks



I. Understanding the changing context

Workplace composition:

- More people work in SMEs
- People change jobs frequently:
 - In the US, people change jobs 10.5 times between ages of 18 and 40
 - The young generation changes jobs more often than their parents



Skills updates and multiple degrees/certificates

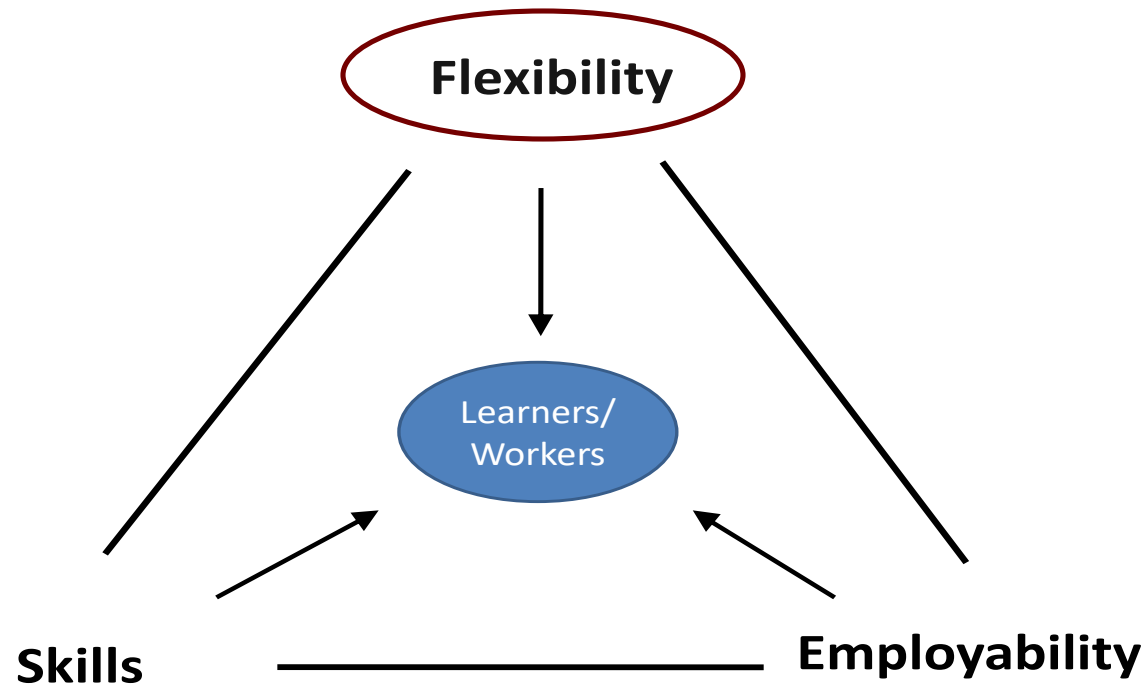
I. Understanding the changing context

Implications for TVET

- A flexible system to respond to the learning needs for all
- New skills and soft skills to enable people to get employed and to contribute to the society
- Multiple roles to increase employability

II. Flexibility

Tripartite Learning Framework



II. Flexibility

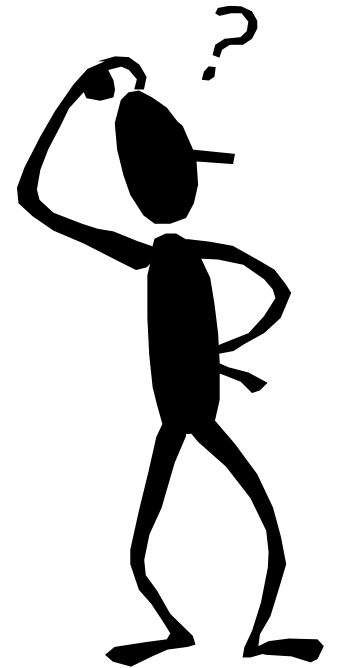
A good education system should provide people with

- *what they need to learn*
- *when they want to learn*
- *how they want to learn*

II. Flexibility

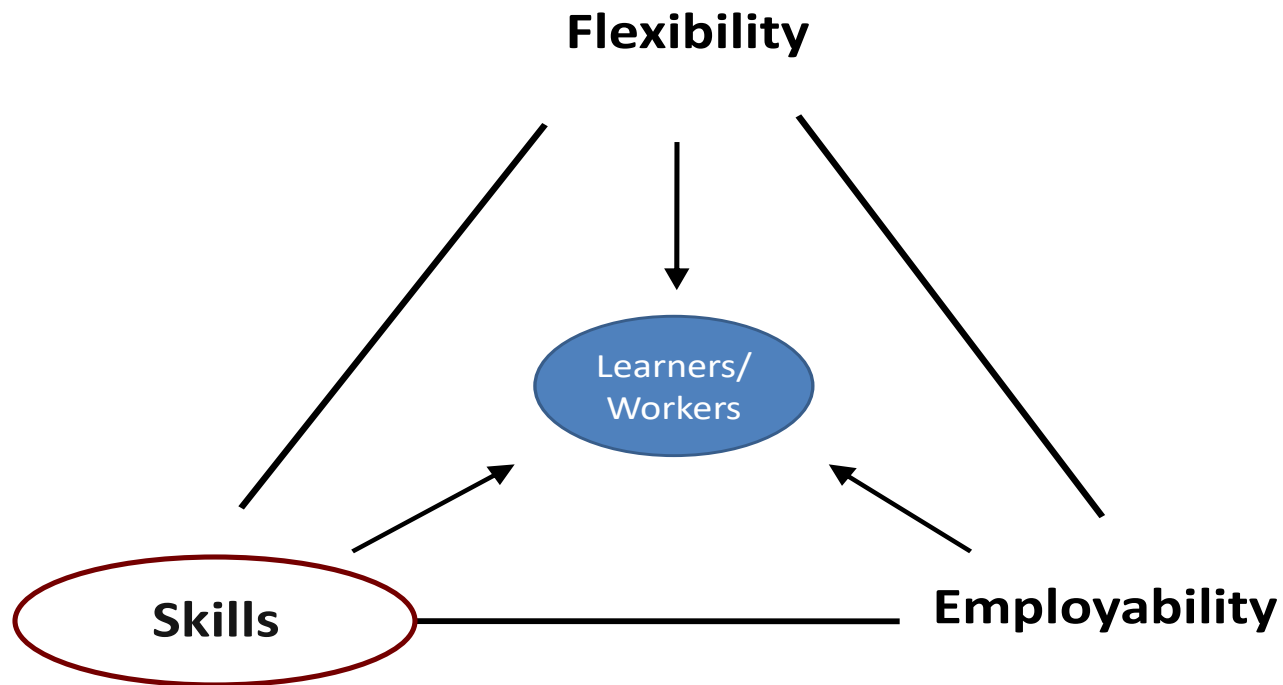
Questions to ask:

- Is the ***structure*** flexible enough to allow all who need skills to have the opportunity to learn?
- Is the ***duration*** of study appropriate to meet everybody's needs?
- Is the ***time*** convenient for learners?
- Is it only one chance or ***2nd and multiple chances***?



III. Skills

Tripartite Learning Framework



III. Skills

Education is supposed to deliver the competencies and skills that enable people to participate in society and live successful lives. But the competencies and skills in demand change over time...



III. Skills

- Emerging important competencies and skills
 - ICT skills
 - Languages
 - Science, mathematics, and engineering
 - Higher-order skills – expert thinking and complex communication
 - Soft skills

III. Skills

Manpower Global Talent Shortage Survey

1. Sales Representatives.
2. Skilled Manual Trades.
3. Technicians.
4. Engineers.
5. Accounting and Finance Staff.
6. Laborers.
7. Production Operators.
8. Drivers.
9. Management/Executives.
10. Machinists/Machine Operators.

Total Number of Respondents: 36,629
Employers indicating difficulty filling positions: 41%
Employers indicating no difficulty filling positions: 59%
Margin of error: +/- 3.9%

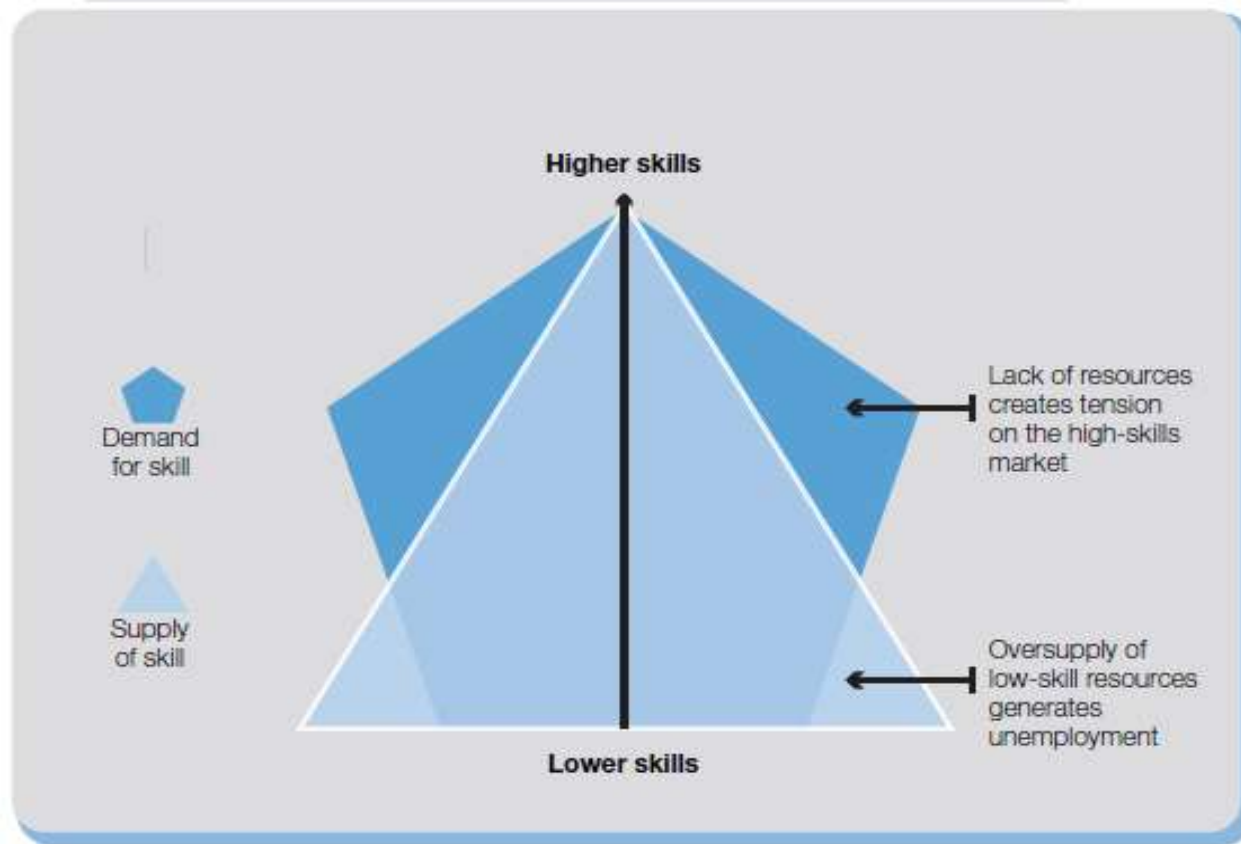
41 %

**of employers worldwide are
having difficulty filling positions due
to the lack of suitable talent available**

Source: Manpower: Driving Sustainable growth through labor market strategy

III. Skills

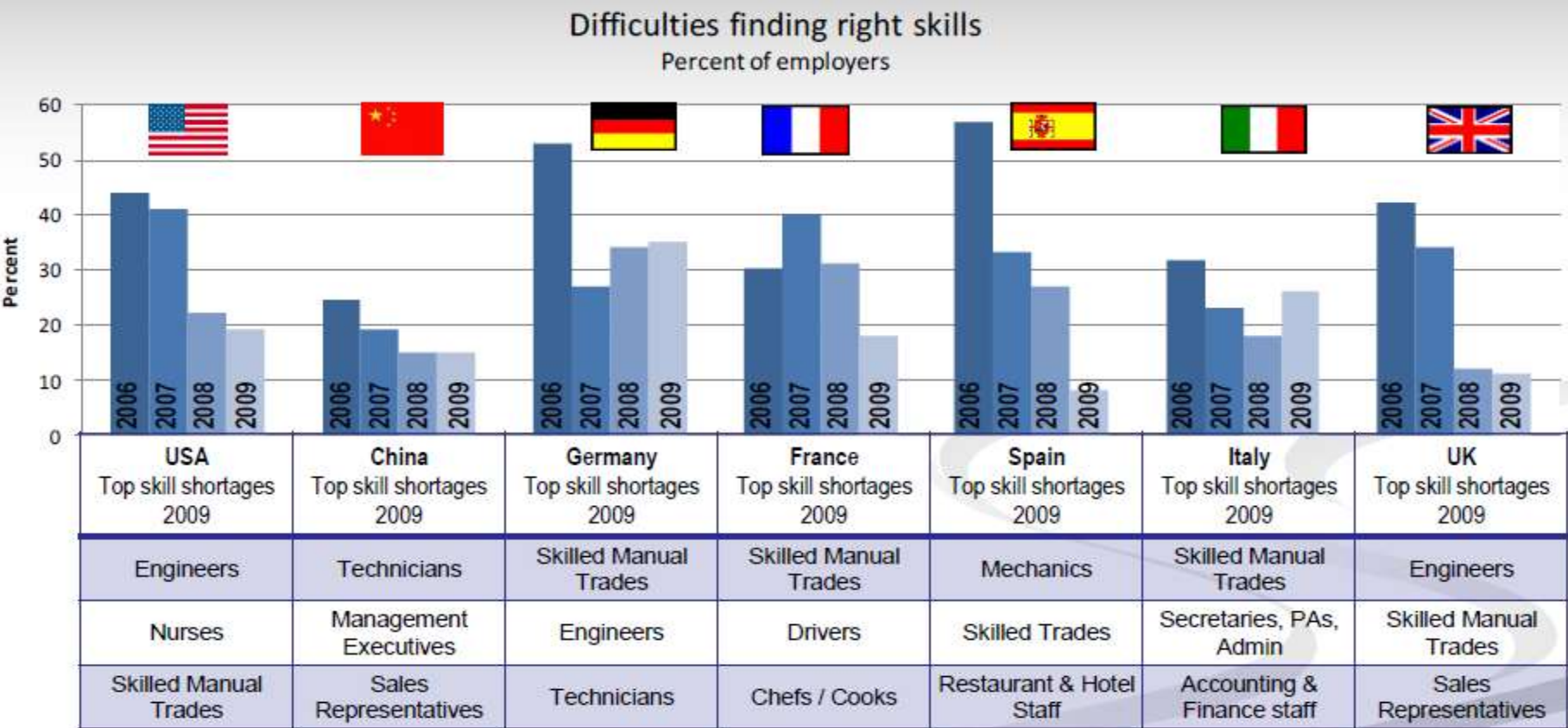
Issues: Demand and supply gaps for skills



Source: Manpower 2010

III. Skills

Employer surveys point to persisting skills shortages



Source: Manpower Skill Shortage Survey 09

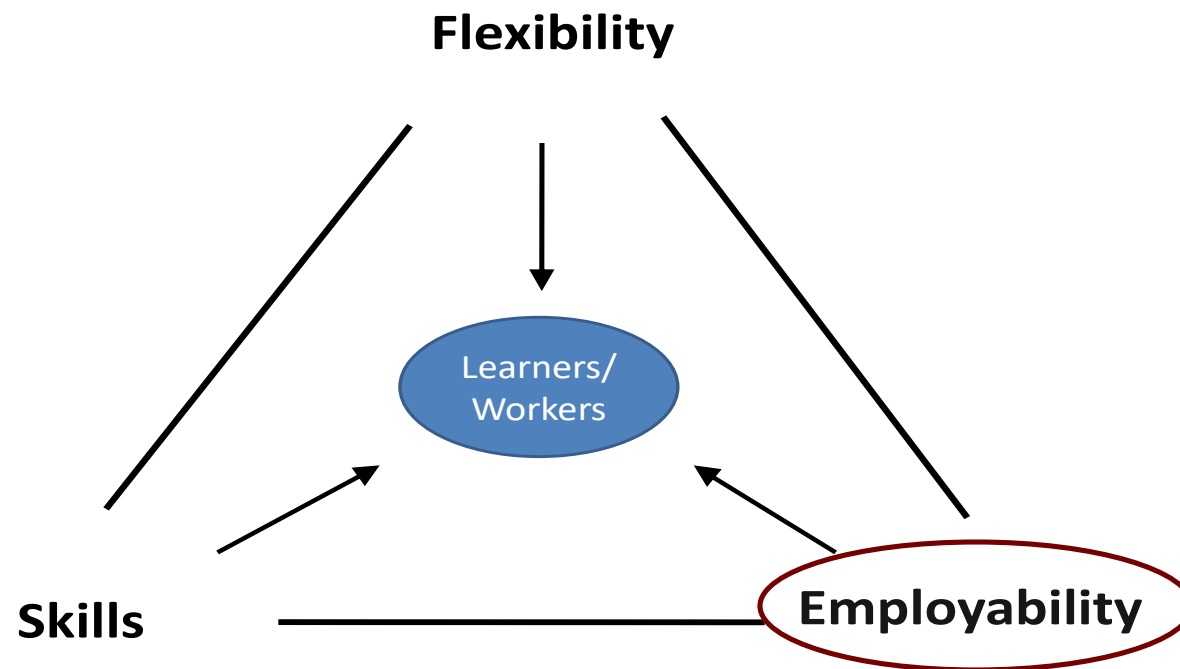
III. Skills

Questions to ask:

- Do the skills taught at TVET schools *meet the needs of labor markets*?
- Do the *employers* get involved in designing and teaching the skills?
- Do TVET schools get *feedback* from employers about their graduates?
- Do “*Soft skills*” included in the curriculum?

IV. Employability

Tripartite Learning Framework



IV. Employability

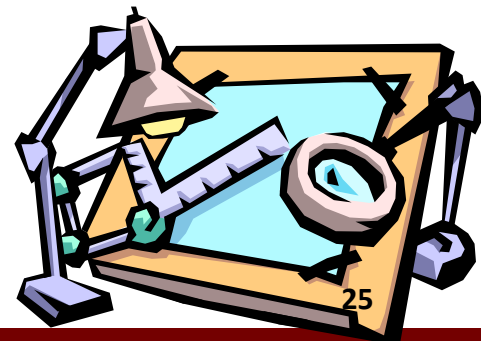
Young people may pursue secondary, tertiary or higher education, but education itself is not an ultimate goal. Good education should enable people to participate in the world and society effectively.



IV. Employability

Issues and challenges:

- School-to-work transition was very much a state responsibility, but not anymore
- Education attainment \neq employment
- Germany's dual system model is facing challenge



IV. Employability

Questions to ask:

- Is there an ***incentive/support*** from the government to provide training to unemployed and firms to provide internships and jobs?
- Does school have a ***career guidance program***?
- Do learners seek out their own ***learning opportunities and experiences***?
- Is there a public ***career information system***?

V. Conclusions

Flexibility:

- Making the system flexible
- Targeting the unemployed

Skills

- Focusing on new skills and soft skills

Employability

- Emphasizing on multiple roles, career information and guidance

Thank You
ywang3@worldbank.org