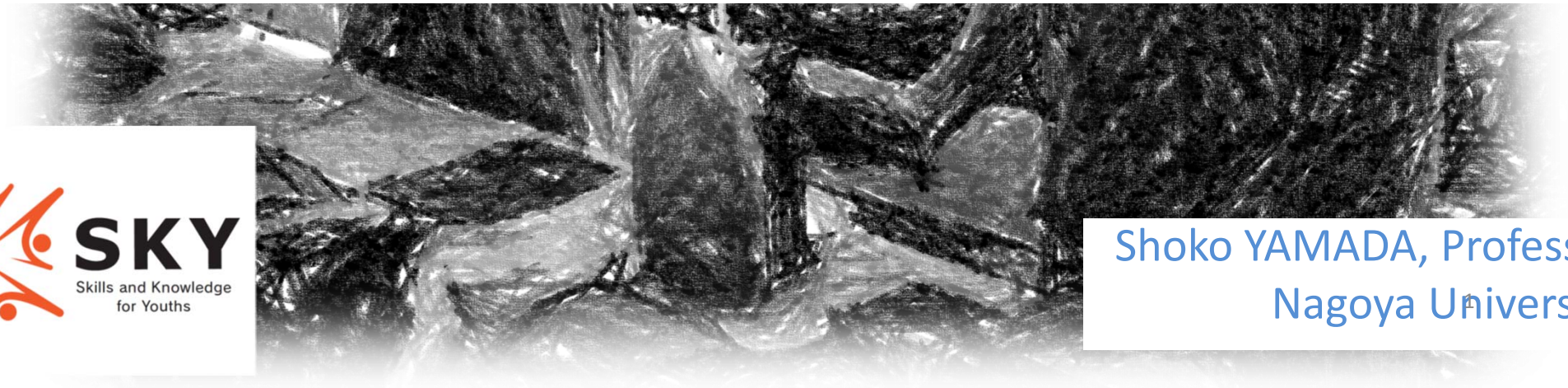
Adaptive skills development to boost economy:

The experience of post-WWII Japan and its implications to Africa



SKY
Skills and Knowledge for Youths

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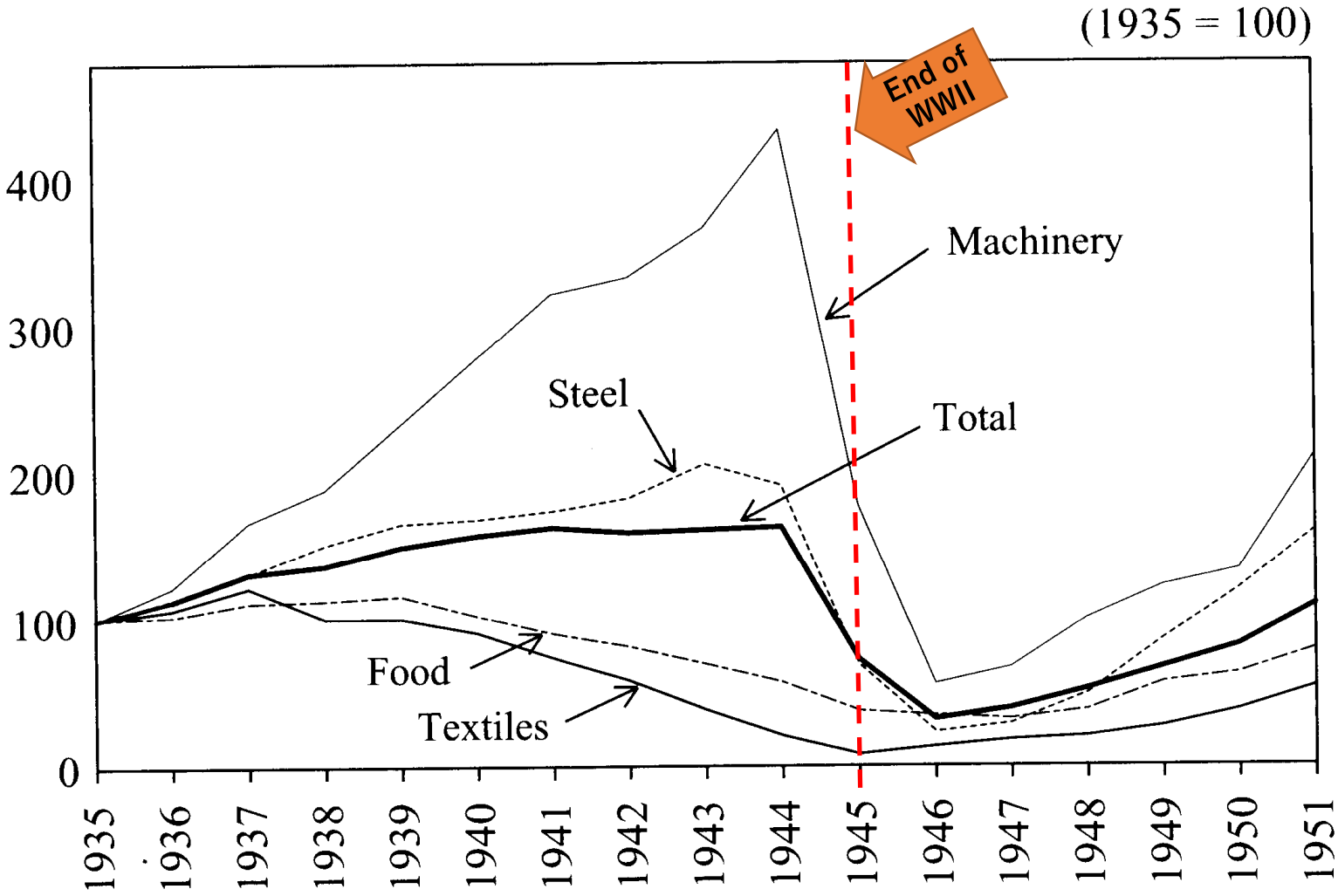
Outline of today's talk

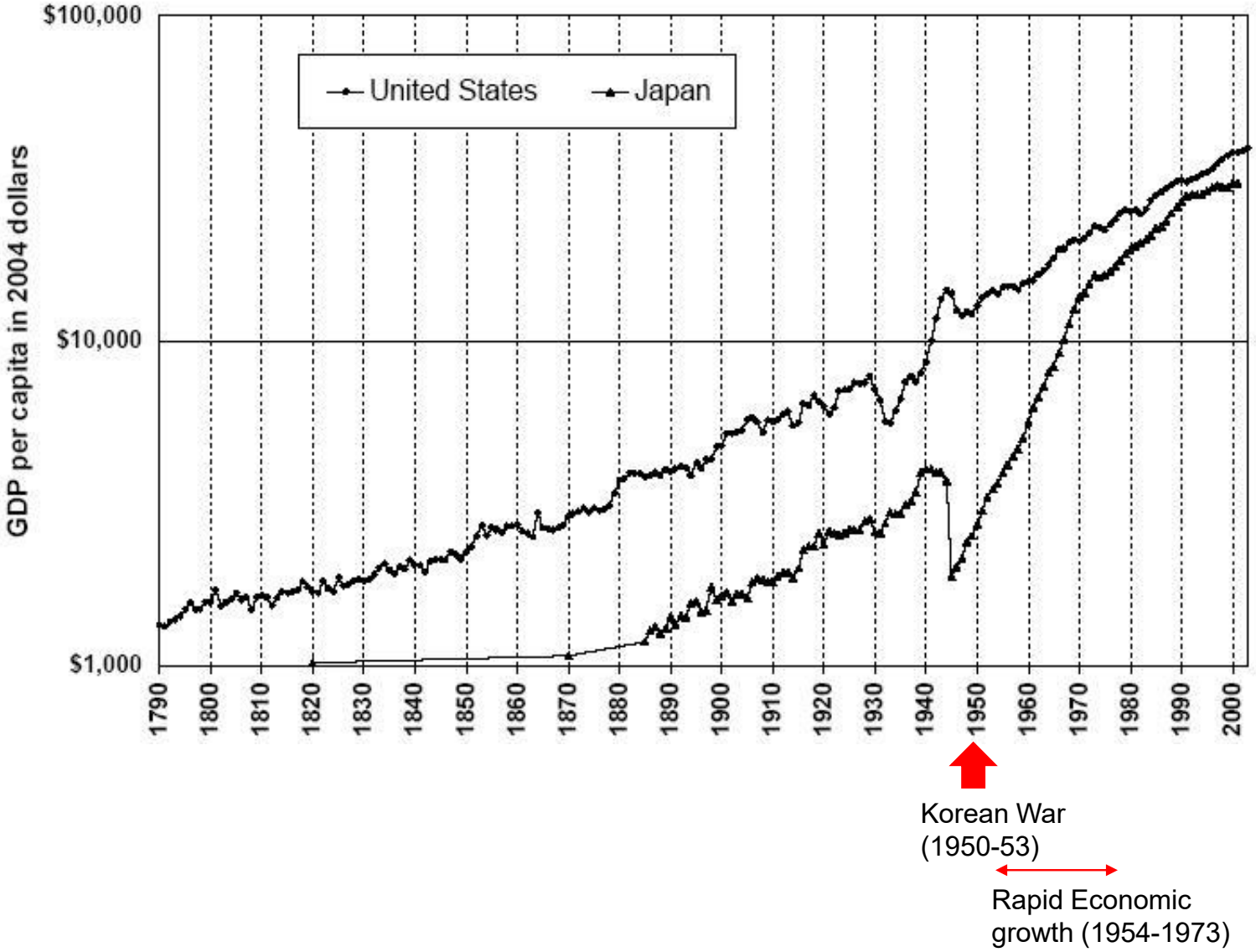
- "East Asian Miracle" and skills development in post-WWII Japan
  - Post-war recovery and growth driven by heavy industries
  - "East Asian Miracle" – Mutual effects of governmental plan and private initiatives
  - Economic maturation to stagnation and diversification
- Changing demands for skills in different time periods
  - Discourses on "competencies"
  - Responses from the education system to the changing skills demands
- How can we capture the changing demand for the skills?
  - Strengths of the SKY project of Nagoya University

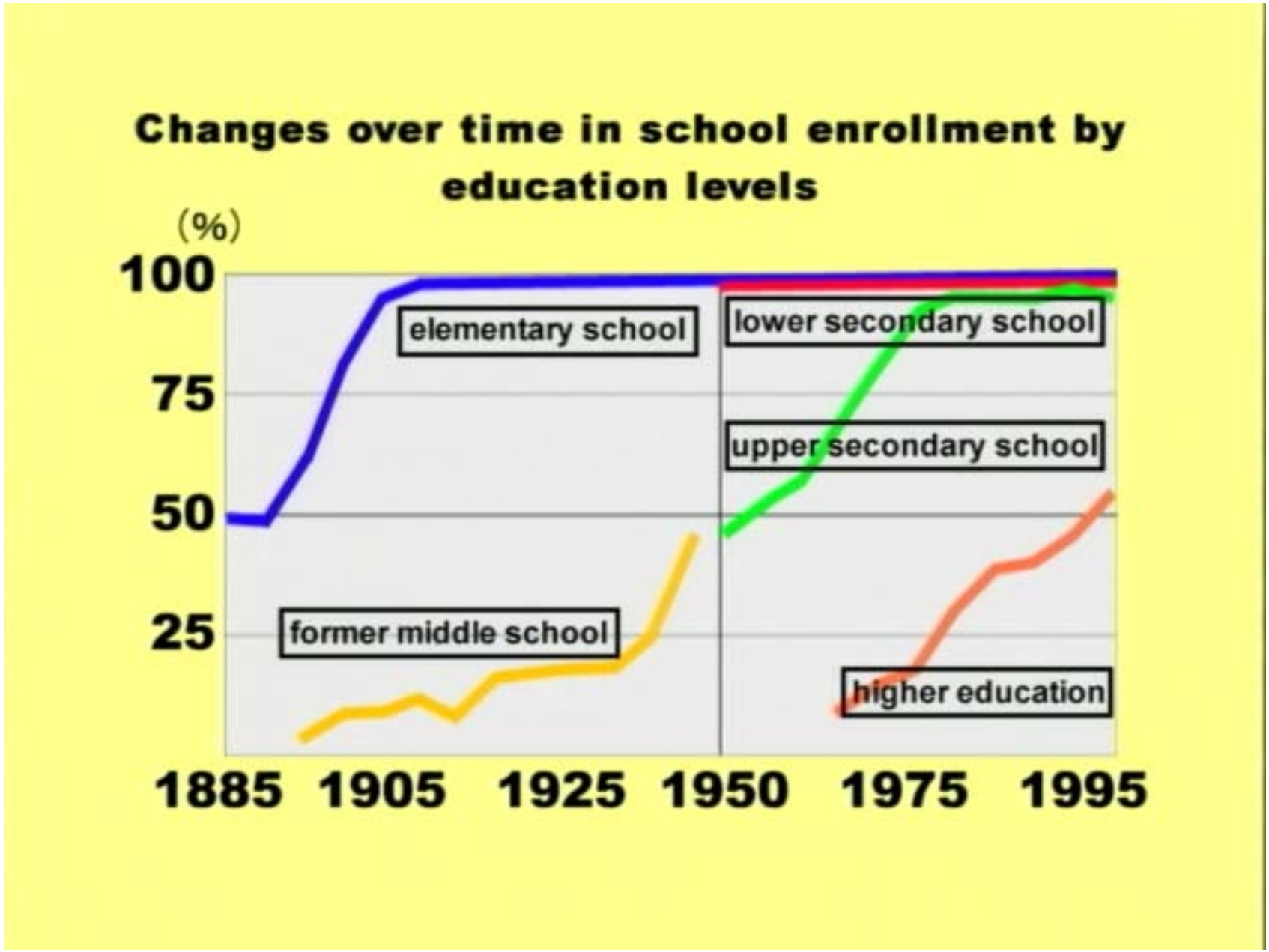
Figure 10-1 Industrial Production Index



Source: Management and Coordination Agency, *Historical Statistics of Japan*, Vol. 2, 1988.

Historical real GDP per capita growth in Japan and US




Changes over time in school enrollment by education levels
(%)
100
75
50
25
elementary school
lower secondary school
upper secondary school
former middle school
higher education
1885
1905
1925
1950
1975
1995

Contributing factors for fast post-war recovery

- Endogenous conditions
  - Production bases were not completely destroyed → stepping board for the heavy industry driven economy
  - High level of literacy and numeracy among the general public
    - Primary school education was universal as of 1900
    - Junior secondary education enrolment reached 99% as of 1950s
  - Hyper inflation → drive for the export

- Exogenous conditions
  - U.S. military demand for the heavy industry products
    - Korean War
    - Vietnam War

"East Asian Miracle" (1950 ~ 1970s)

Mutual effects of governmental plan and private initiatives

Government-led initiatives

- Introduction of export-oriented industry promotion policy as soon as the U.S. occupation ended
  - Prioritization of heavy industry (steal, metal, ship/aircraft)← tax benefit and developmental loans
- Strengthening the TVET and engineering education in relation to the priority sectors
  - Industrial Education Promotion Law
  - Science Education Promotion Law

Private sector dynamics

- Increased domestic demands for precision equipment (home appliances, camera watch)
- International demands for Japanese technologies (car, audio)
- Commitment of the workforce
  - "Golden Eggs" – massive recruitment of youths from rural areas
  - Collective work ethics of Japanese companies

Period of a technology-led, export-oriented growth
with a unified goal for the whole society

Economic maturation and diversification (1980s ~)

- Effects of the government-led industry promotion was mixed
  - Not all big successful companies were protected by the government
  - There were some industries which were not much successful despite the governmental protection (e.g. computer, nuclear fusion)
- The service sector grew bigger than manufacturing → the demand for the hard vocational skills reduced
- Globalization of Japanese mega companies brought about the needs for "international business skills"
- Emphasis on individuality than collectivity
- As economy matures, the demands for skills (both soft and hard skills) diversify

From early concentration on the hard skills to diverse needs on the soft skills

Period	Priority of skills development proposed by the industrial associations
1950s ~early 1970s	Quantitative expansion; **Hard skills** development for priority industries
1970s	Qualitative improvement
1980s	**International skills**; **creativity**; demands to meet **diverse skills** needs
1990s	Individuality; liberal arts education
2000s~ present	**Problem-solving skills; work-place innovation**

How to cope with the changing needs on skills?

- Skills demands are growingly diversified and fast to change
- The “model” which worked in the past may not apply for others in today’s world
  - Catch-up economy which start with light, export-oriented industry is based on the cheap labor force and favorable legal and infrastructure support for the investors --> potential conflict with the wellbeing of workers
  - Resource-dependent economy does not contribute to strengthening the human capital for value-added production
  - Technological innovation like fintech happens in Africa but not necessarily by the hands of African engineers

Training programs and policies should be constantly checked, adapted, and modified

The vision for the proactive skills development

- Systemic planning of the whole skills development system
  - <perspectives> Workers – training providers – employers
  - <labor market mechanism> job matching – transparency of employment needs – check and revise mechanism of training programs
  - <incentives in the workplace> salaries – promotion – opportunities for skills upgrading
- Lifelong learning
  - Consideration of the workers' life time career development
  - Balancing the individual aspiration with social goals of development
- General competencies vs. industry-specific skills
  - Soft skills – hard skills
  - Cognitive skills – noncognitive skills
  - General vocational skills – specific vocational skills

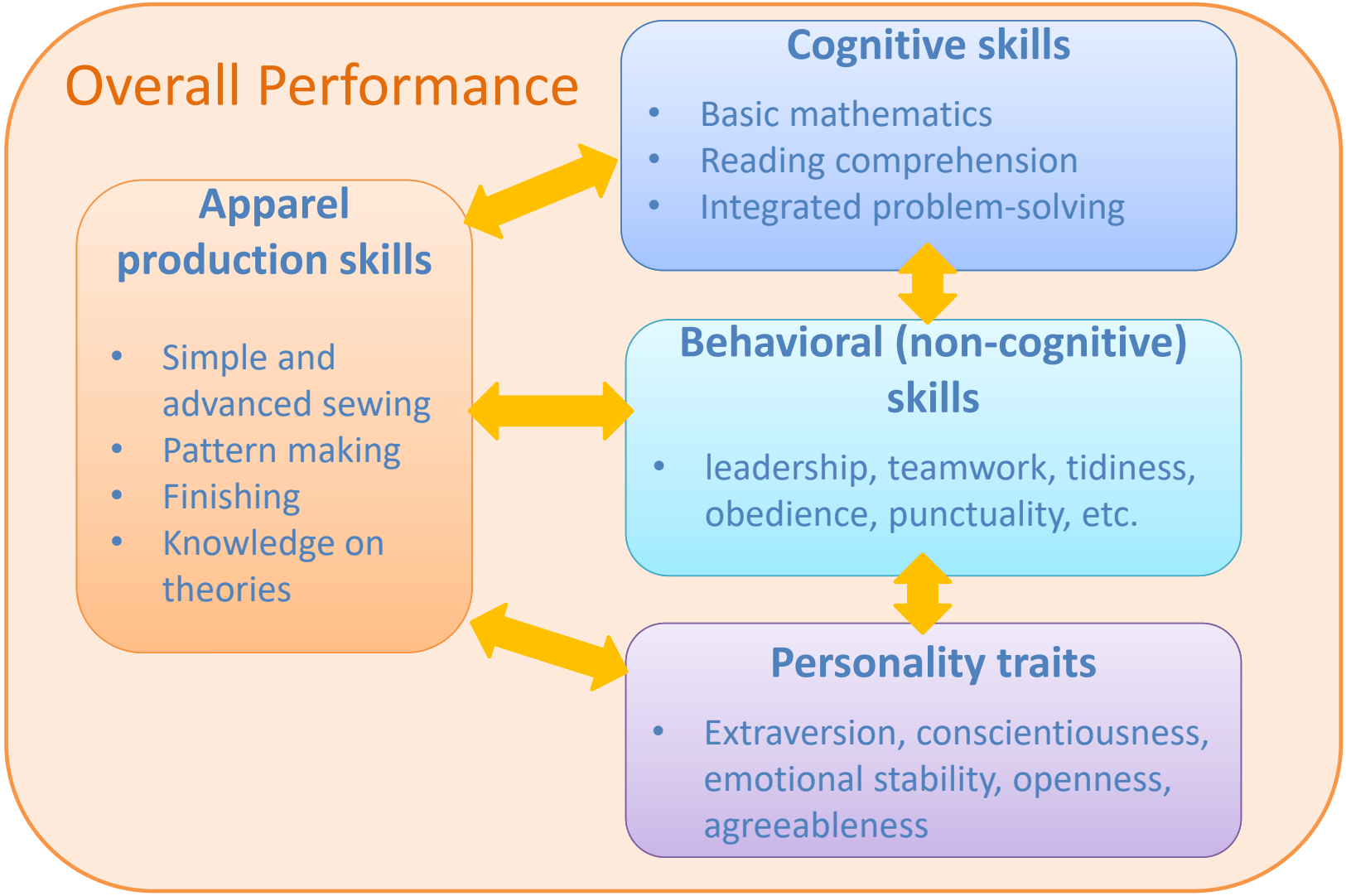
The starting point is an accurate diagnosis of the skills which workers currently have → Skills and Knowledge for Youths (SKY) project

The strengths of the *SKY* project survey

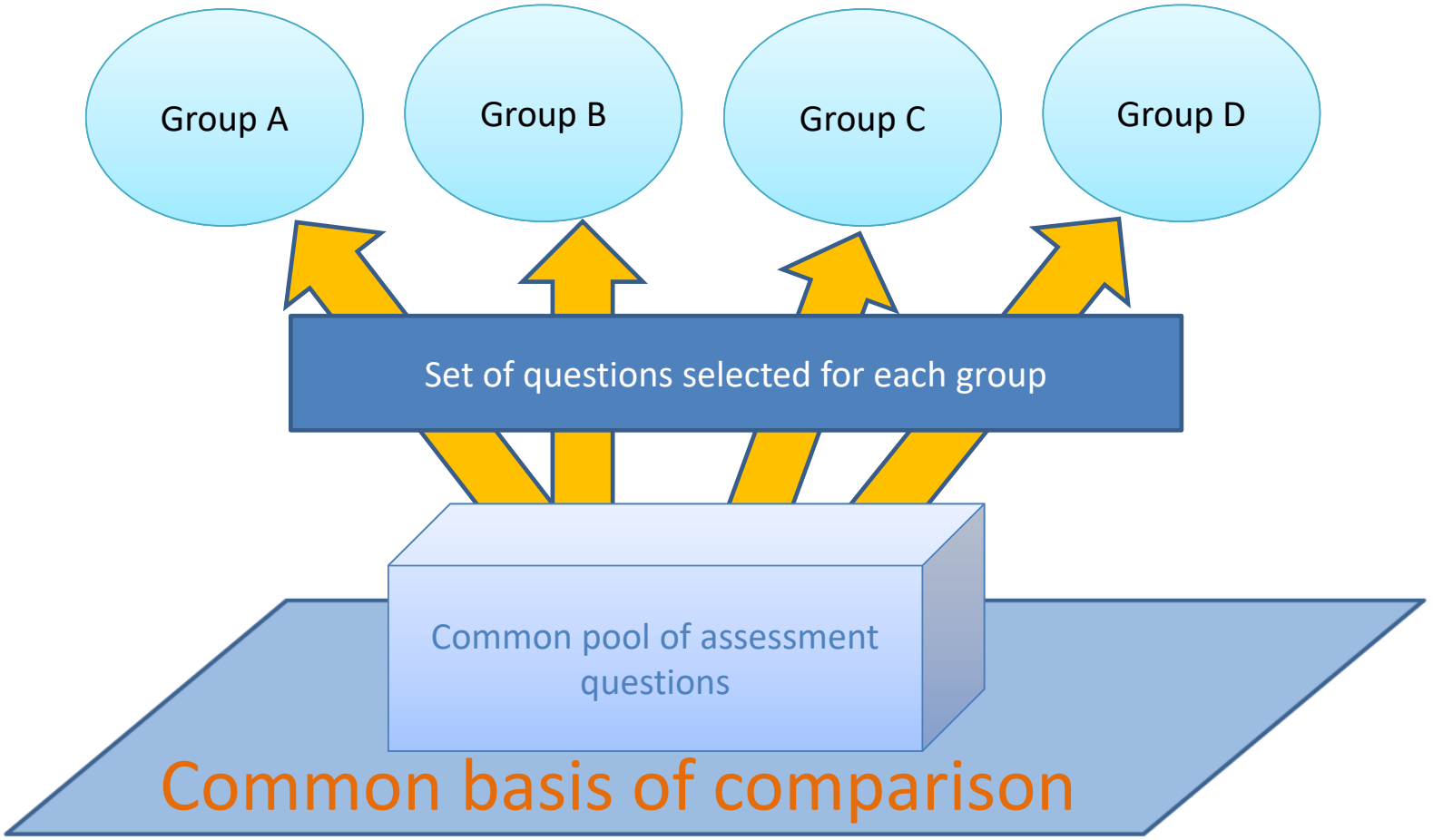
We can

- Diagnose the skills of workers from multiple angles and provide answers to the above questions
  - Our module provides pictures about the complex relationships among cognitive, non-cognitive (soft), and vocational (hard) skills
- We can benchmark workers' skills in comparison to other survey participants in South Africa and other African countries
- We can indicate the specific gaps between the employers' expectations and workers' skills
- We can provide evidence-based proposals for improving the skills development plan

1. Diagnosis of Overall Performance



2. Finding relative strengths and weaknesses (Benchmarking)



➡ Benchmarking

3. Identification of factors which influence the performance

High performance

Low performance


Worker A


Worker B


Worker C


Worker D


Worker E

What makes their performance different??

Educational background?

Years of experience?

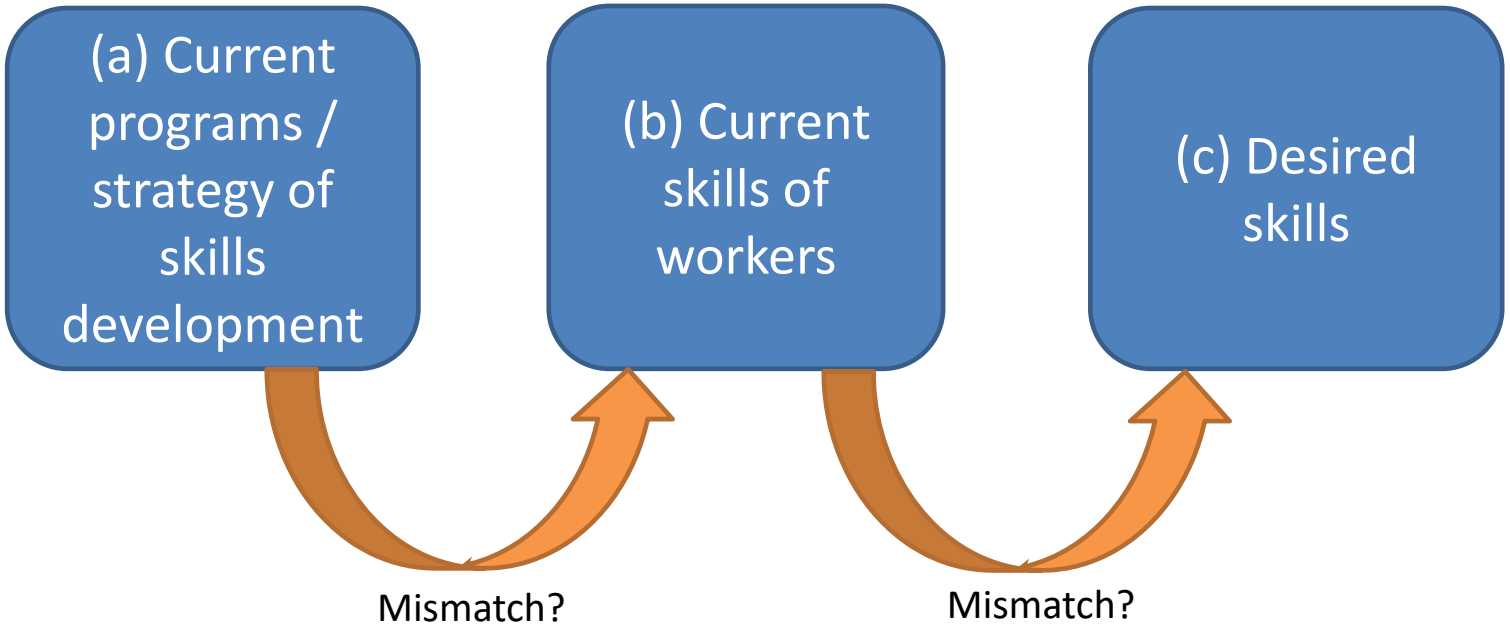
Home background?

Gender?

Commuting distance?

Absenteeism?

4. Proposals for revised training programs



Based on the examination of (a) existing skills development programs; (b) current skills of workers; and (c) skills desired by the employers, we will propose revision of training programs

Please find more about us

Website

https://skills-for-development.com

SKY project twitter

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