



**build**  
something  
different

Redefined core literacies  
**and new models of assessment.**

# Today's Literacies:

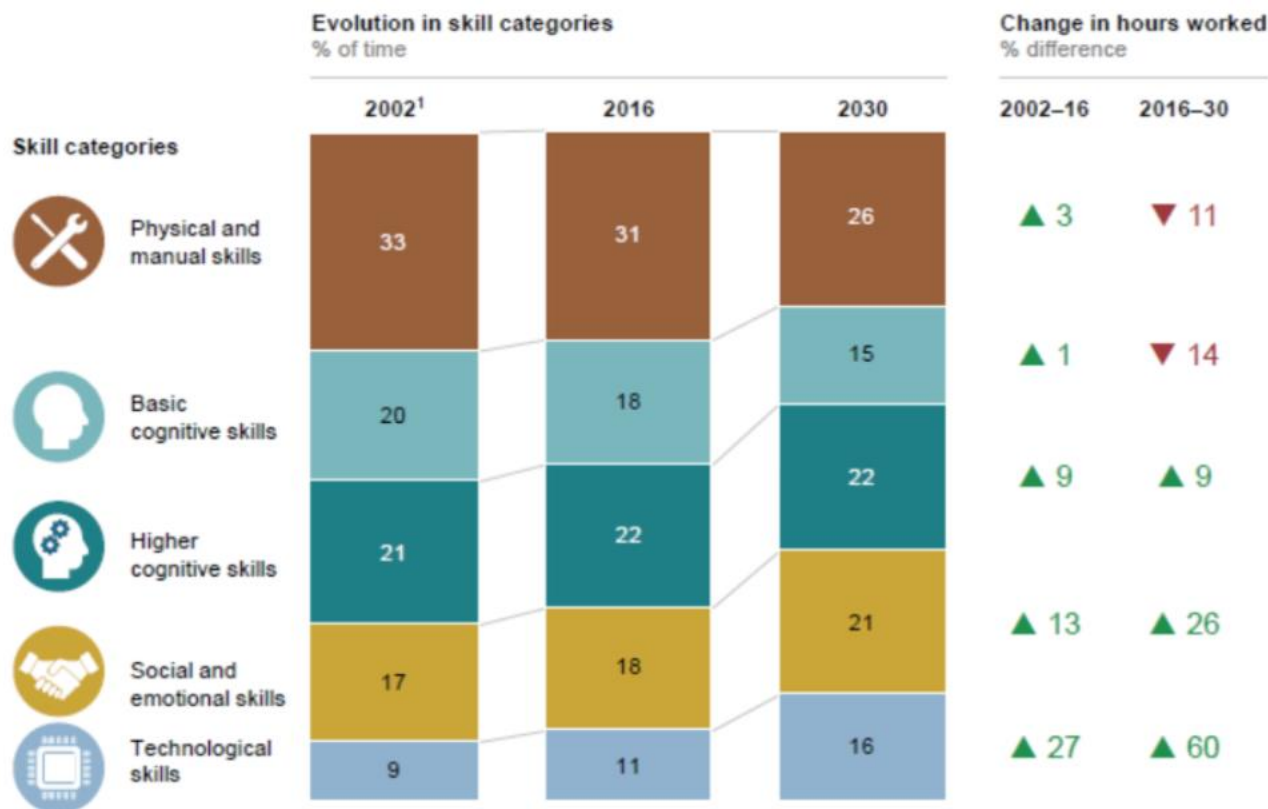


Language Literacy  
Mathematical Literacy



Lack of  
**contextual relevance**

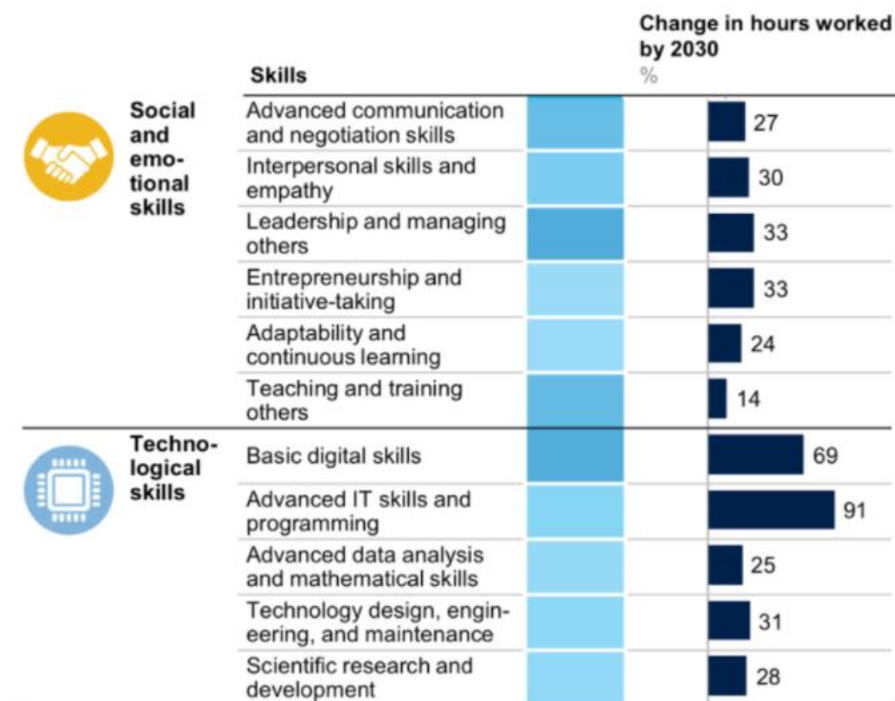
**Not understood**  
in the real world



<sup>1</sup> Calculated using the 2004 to 2016 CAGR extrapolated to a 14-year period.

NOTE: Based on difference between hours worked per skill in 2016 and modeled hours worked in 2030. Numbers may not sum due to rounding.

SOURCE: U.S. Bureau of Labor statistics; McKinsey Global Institute workforce skills model; McKinsey Global Institute analysis



“ 86%

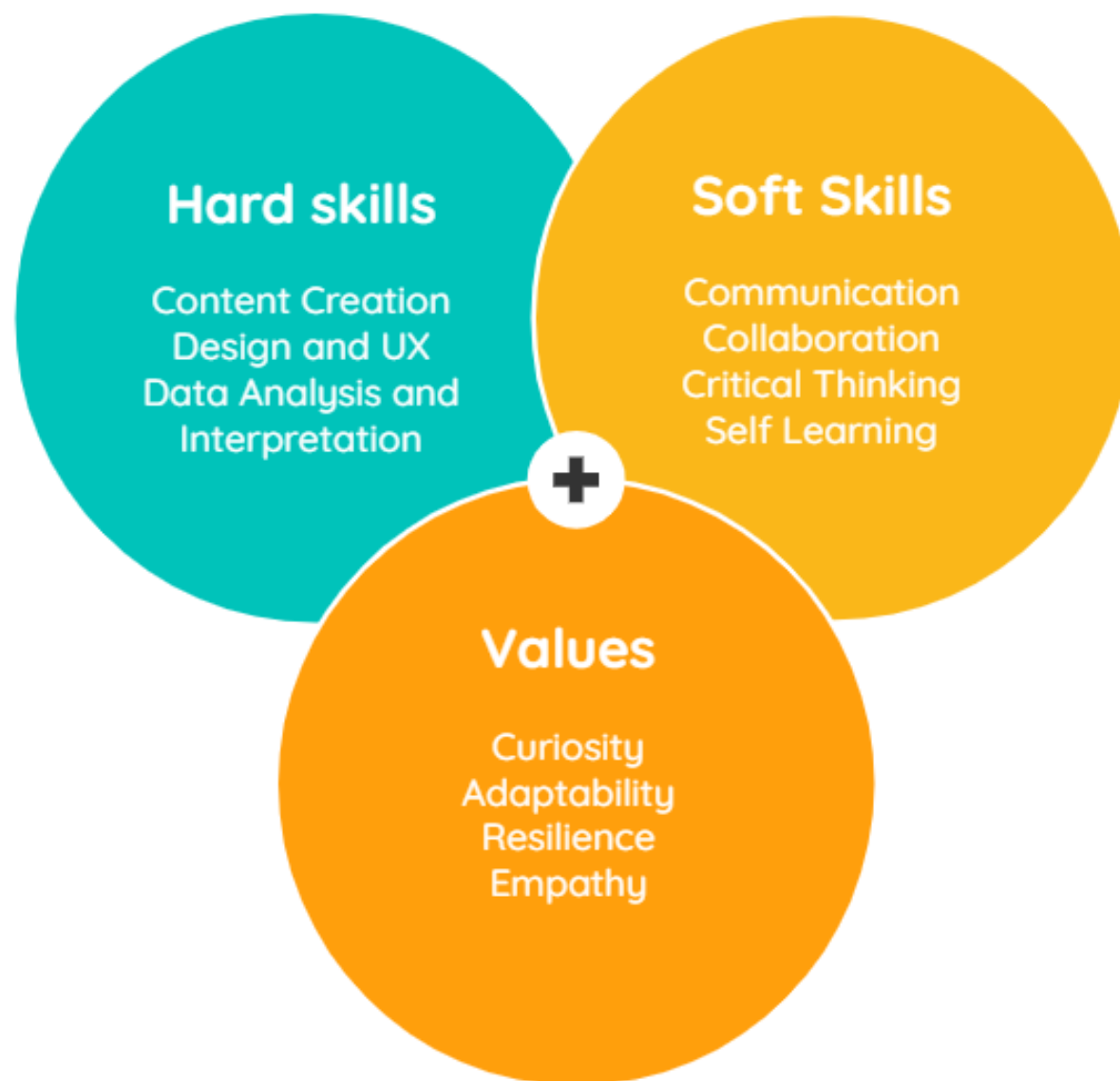
*of executives agree their organization must train its people to think like technologists—to use and customize technology solutions at the individual level*



# Defining digital skills

Not everyone will be a programmer, but everyone will work with technology.

Mastering digital skills is about nurturing understanding of passions, the ability to work with others and the confidence to forge a pathway for the future.



## HK Current:

- Guidance for subject integrated and project based approaches through Primary and Junior Secondary.
- ICT as a Class A elective subject for DSE.

52,000

DSE Students

70%

2 Electives

91%

Schools offering ICT

5,000

Students

11.5%

Schools offering Design  
and Applied Technology

512

Students

10%

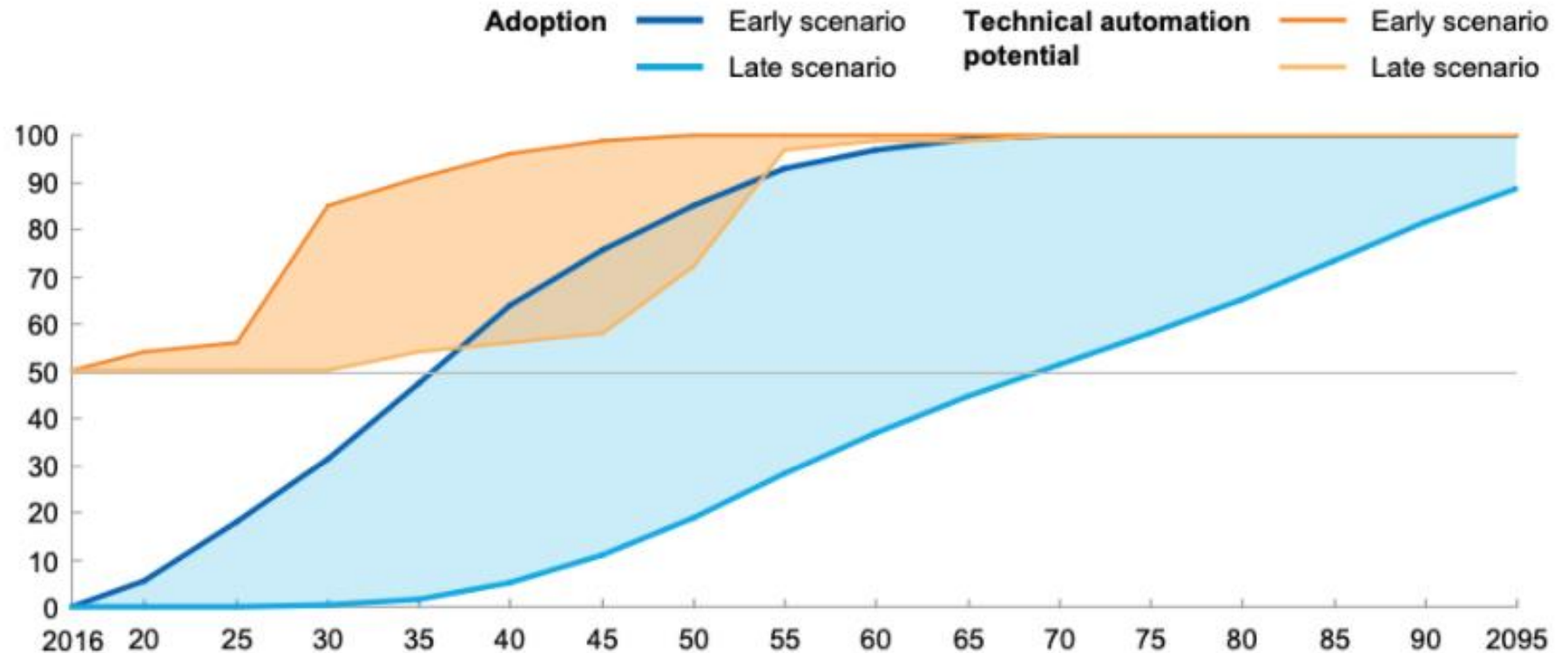
# The workforce skills issue

## Higher Level Employment

Possible % job automations vs implementable % job automations

### McKinsey's research says:

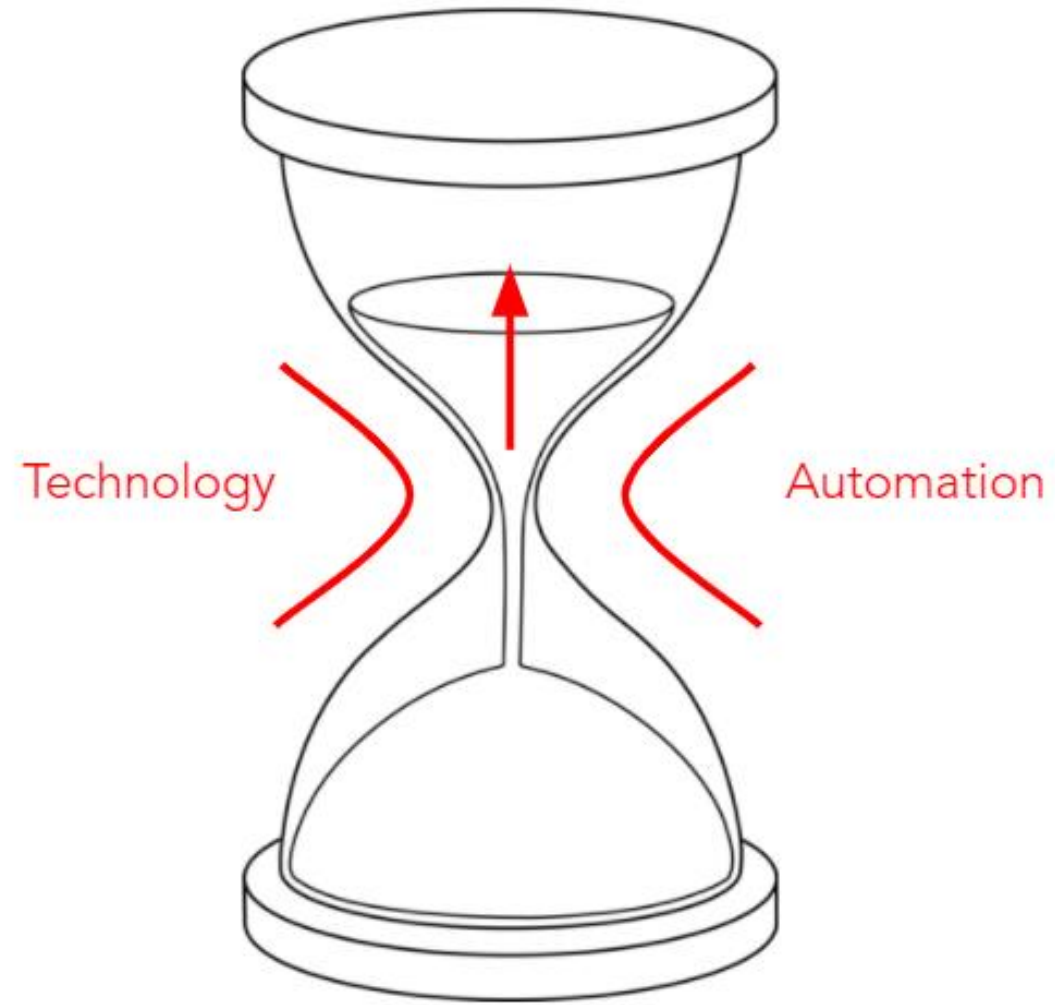
- 88% executives say  $\geq 50\%$  of workforce will need retraining or replacing within 5 years.
- $\frac{1}{3}++$  of organizations are unprepared.

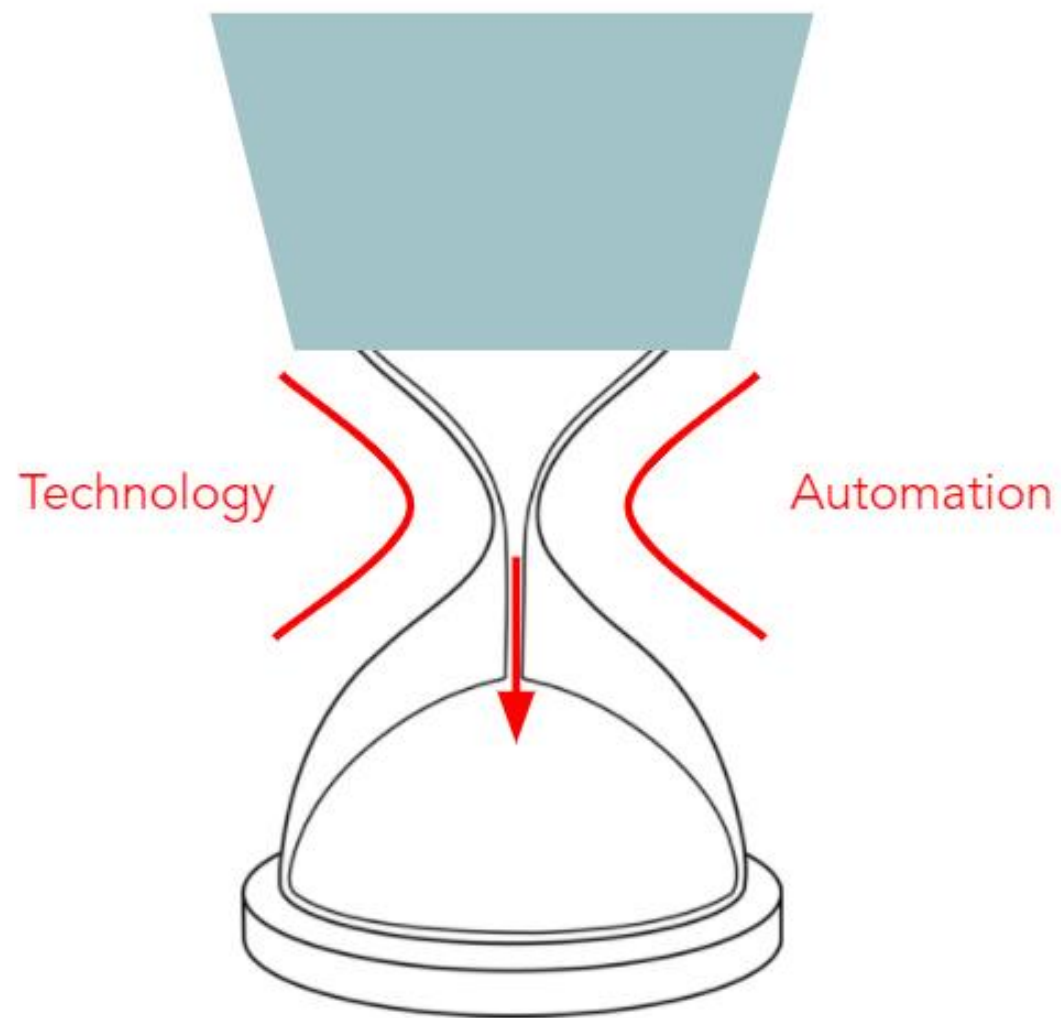


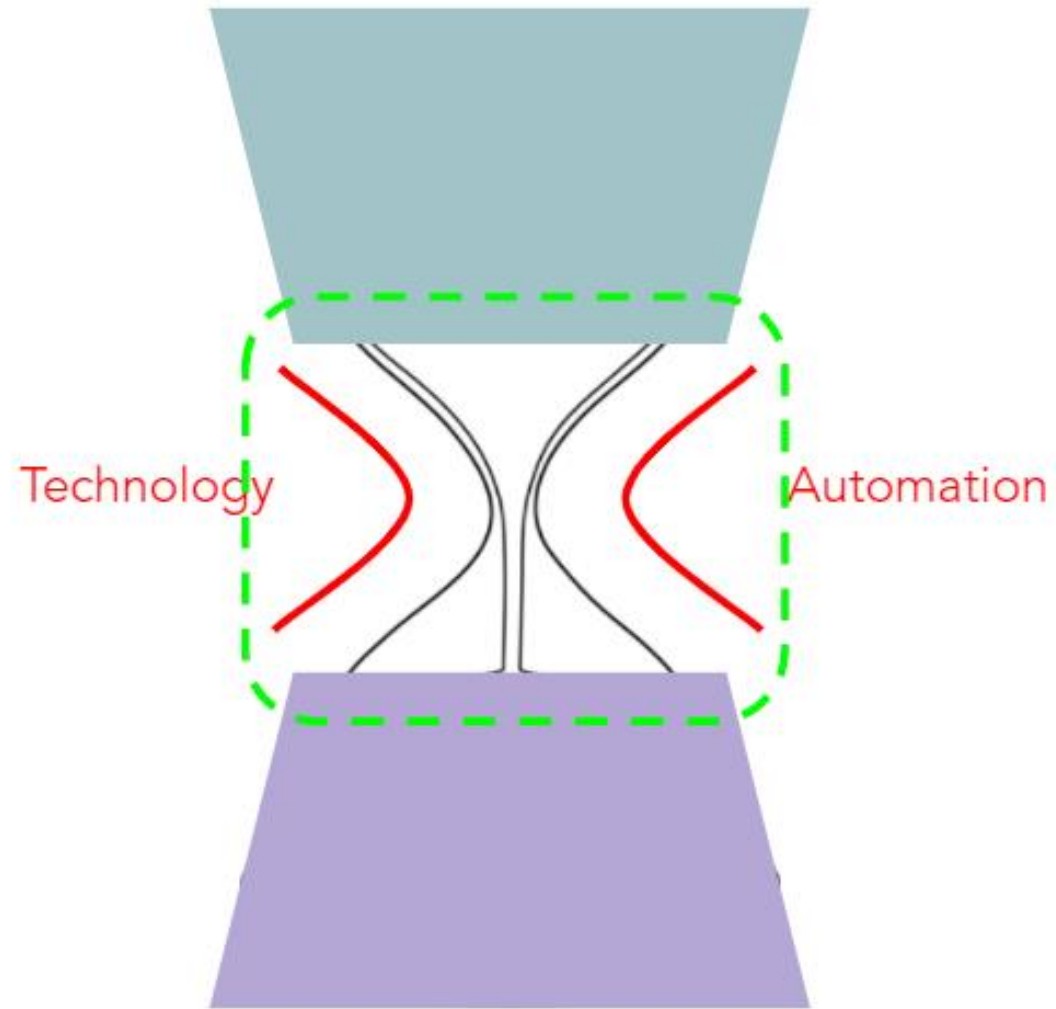
1 Forty-six countries used in this calculation, representing about 80% of global labor force.

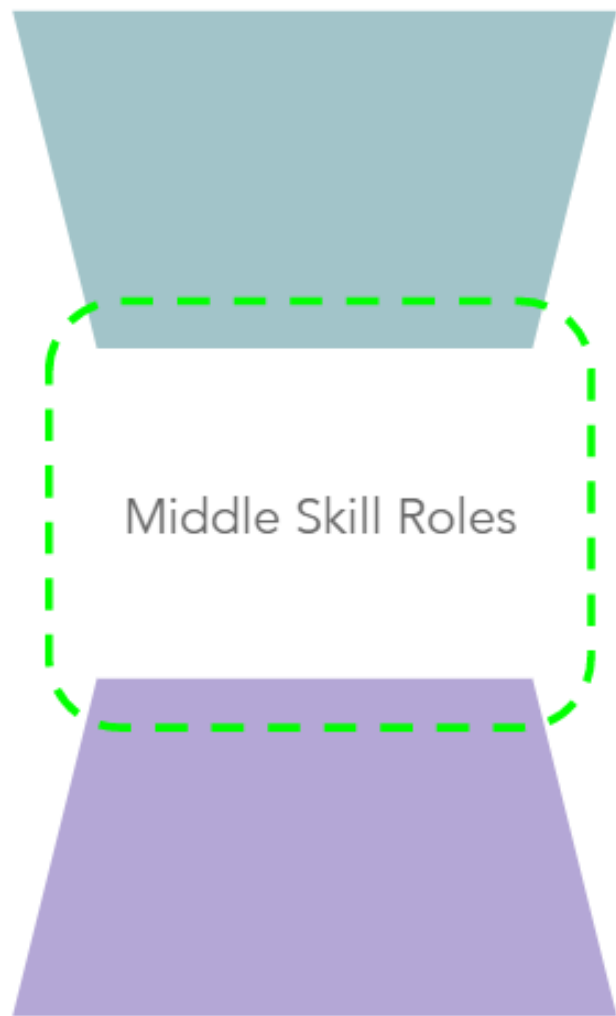
SOURCE: McKinsey Global Institute analysis

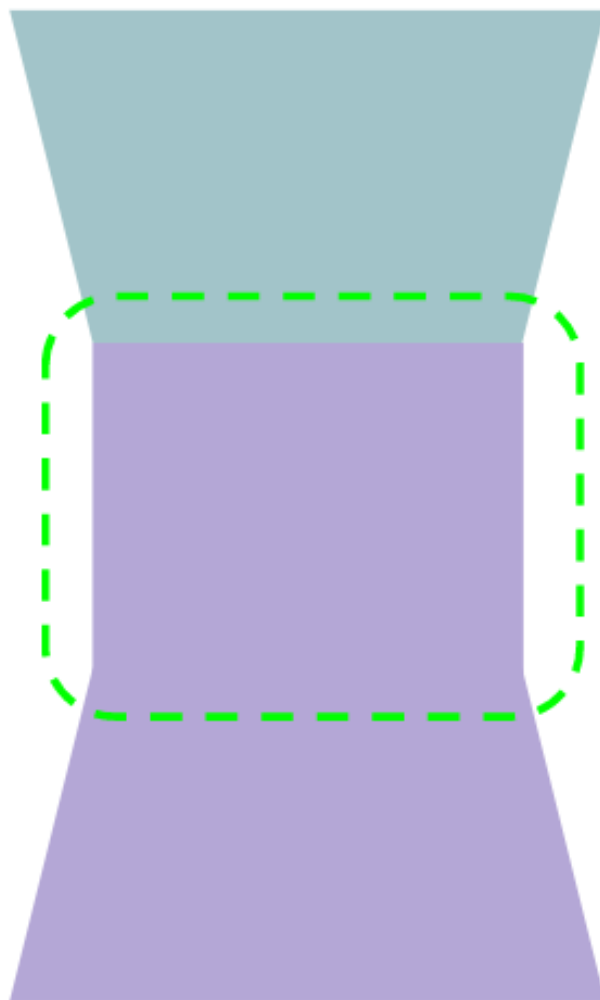




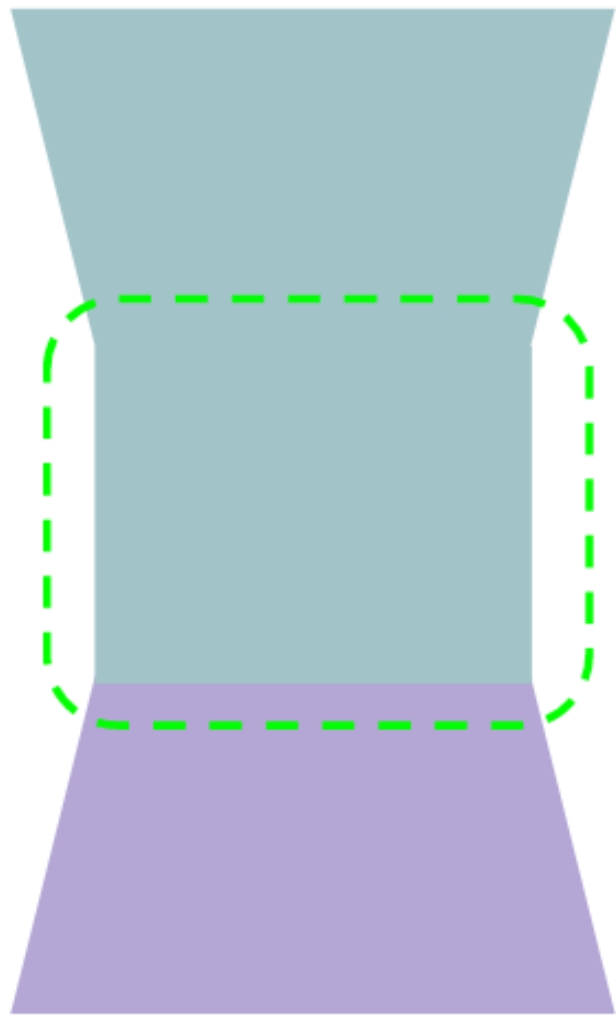








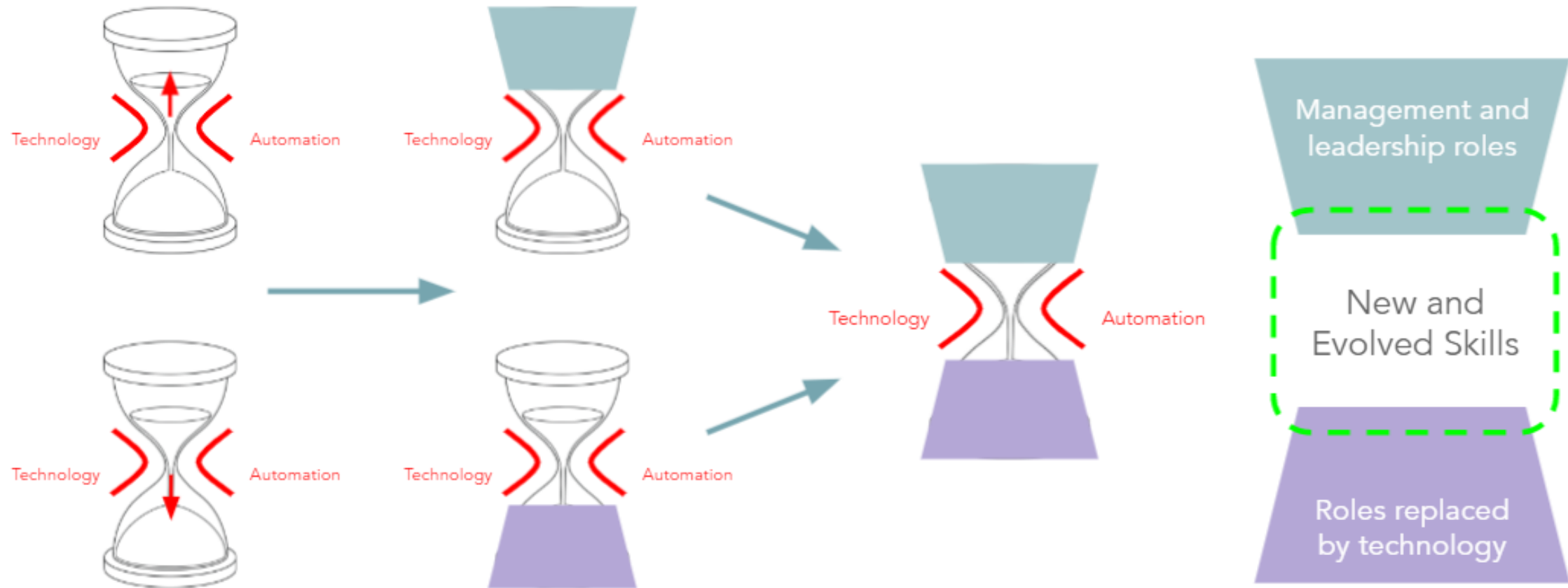




1

2

3



“ 263,000 - 2021  
746,000 - 2030

***Talent deficit*** in highly skilled workers in Hong Kong.



Misalignment between **automation, AI, machine learning**, and other **technological advances** and the skills and experience talent needs to leverage the full potential of those advances is **a main factor contributing to growing talent deficits**.

This will create an **unrealised economic opportunity of US\$219 billion** or 39% of potential.

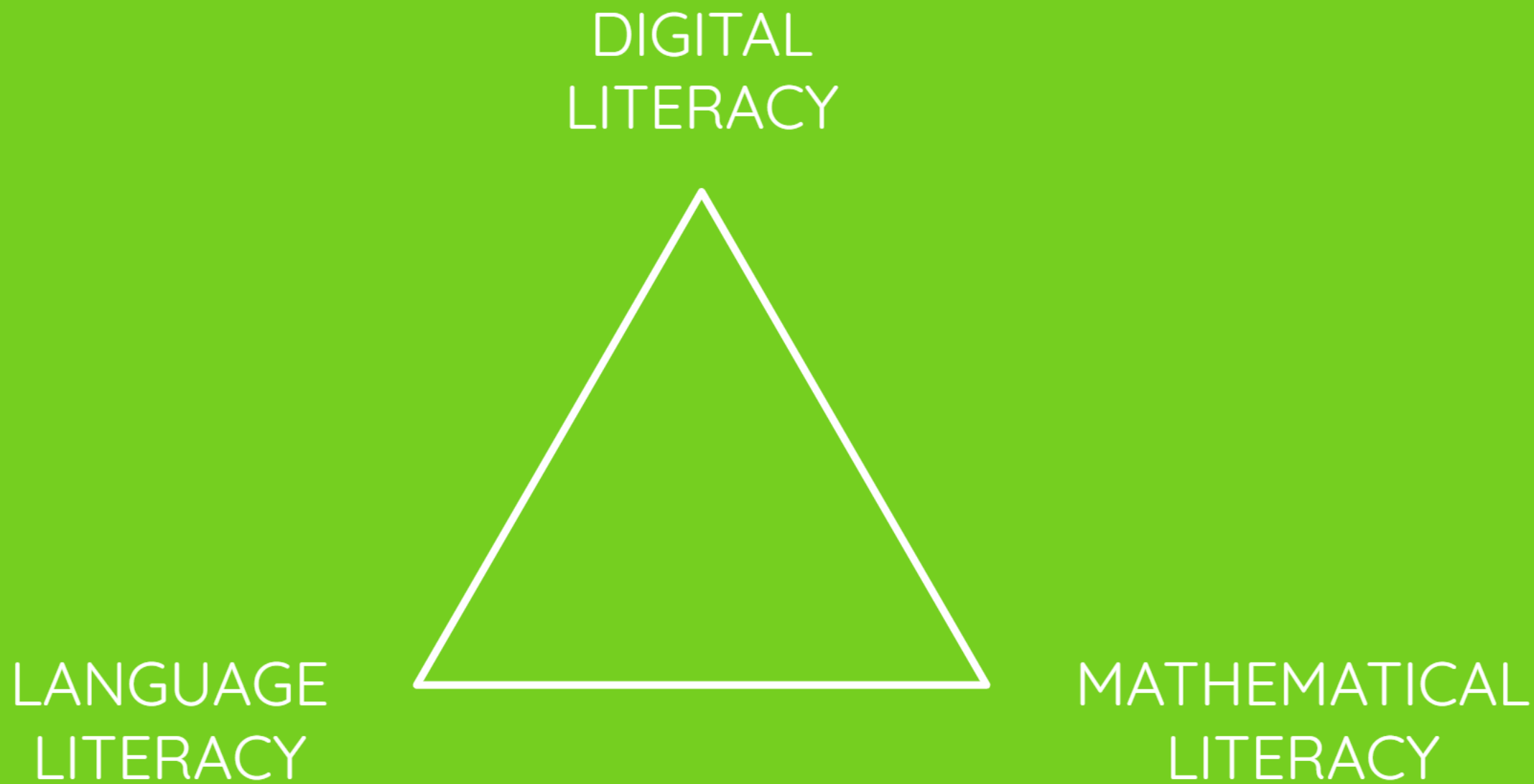
# 52,000

Graduating Students

# 48,000

Annual shortfall





# Learning to Learn 2+ — The Hong Kong School Curriculum

A broad and balanced curriculum with diversification and specialisations (choices) for academic, professional and vocational development according to students' needs

Nurturing  
lifelong & self-directed  
learning capabilities

Fostering  
whole-person development

## SEVEN LEARNING GOALS

### FIVE ESSENTIAL LEARNING EXPERIENCES

Moral and Civic Education Intellectual Development Community Service Physical and Aesthetic Development Career-related Experiences

Secondary 4-6

SS

Secondary 1-3

JS

Primary 1-6

P

Kindergarten 1-3

KG

#### Core Subjects

Chinese Language  
English Language  
Mathematics  
Liberal Studies

#### Electives

20 Elective Subjects  
Applied Learning  
Other Languages

#### Other Learning Experiences

Moral and Civic Education  
Aesthetic Development  
Physical Development  
Community Service  
Career-related Experiences

Four Key Tasks: Towards major renewed emphases (MRE) at the JS level and beyond  
STEM education & ITE, Values education (incl. MCE & Basic Law education), Language across the Curriculum (incl. reading), etc.

Chinese  
Language  
Education

Key Learning  
Area

English  
Language  
Education

Key Learning  
Area

Mathematics  
Education

Key Learning  
Area

Science  
Education

Key Learning  
Area

Technology  
Education

Key Learning  
Area

Personal,  
Social &  
Humanities  
Education

Key Learning  
Area

Arts  
Education

Key Learning  
Area

Physical  
Education

Key Learning  
Area

General Studies

Values & Attitudes, Skills and Knowledge

Language

Early  
Childhood  
Mathematics

Nature &  
Living

Self &  
Society

Arts &  
Creativity

Physical  
Fitness &  
Health

#### Values & attitudes

##### Seven priority values

- Perseverance
- Respect for Others
- Responsibility
- National identity
- Commitment
- Integrity
- Care for Others

##### Generic skills

- Basic Skills
- Communication Skills
  - Mathematical Skills
  - IT Skills

##### Thinking Skills

- Critical Thinking Skills
- Creativity
- Problem Solving Skills

##### Personal & Social Skills

- Self-management Skills
- Self-learning Skills
- Collaboration Skills

# Learning to Learn 2+ — The Hong Kong School Curriculum

A broad and balanced curriculum with diversification and specialisations (choices) for academic, professional and vocational development according to students' needs

Nurturing  
lifelong & self-directed  
learning capabilities

Fostering  
whole-person development

## SEVEN LEARNING GOALS

### FIVE ESSENTIAL LEARNING EXPERIENCES

Moral and Civic Education Intellectual Development Community Service Physical and Aesthetic Development Career-related Experiences

Secondary 4-6

SS

Secondary 1-3

JS

Primary 1-6

P

Kindergarten 1-3

KG

#### Core Subjects

Chinese Language  
English Language  
Mathematics  
Liberal Studies

#### Electives

20 Elective Subjects  
Applied Learning  
Other Languages

#### Other Learning Experiences

Moral and Civic Education  
Aesthetic Development  
Physical Development  
Community Service  
Career-related Experiences

Four Key Tasks: Towards major renewed emphases (MRE) at the JS level and beyond  
STEM education & ITE, Value education (incl. MCE & Basic Law education), Language across the Curriculum (incl. reading), etc.

Chinese  
Language  
Education

Key Learning  
Area

English  
Language  
Education

Key Learning  
Area

Mathematics  
Education

Key Learning  
Area

Science  
Education

Key Learning  
Area

Technology  
Education

Key Learning  
Area

Personal,  
Social &  
Humanities  
Education

Key Learning  
Area

Arts  
Education

Key Learning  
Area

Physical  
Education

Key Learning  
Area

General Studies

Values & Attitudes, Skills and Knowledge

Language

Early  
Childhood  
Mathematics

Nature &  
Living

Self &  
Society

Arts &  
Creativity

Physical  
Fitness &  
Health

#### Values & attitudes

##### Seven priority values

- Perseverance
- Respect for Others
- Responsibility
- National identity
- Commitment
- Integrity
- Care for Others

##### Generic skills

- Basic Skills
- Communication Skills
  - Mathematical Skills
  - IT Skills

##### Thinking Skills

- Critical Thinking Skills
- Creativity
- Problem Solving Skills

##### Personal & Social Skills

- Self-management Skills
- Self-learning Skills
- Collaboration Skills



# Learning to Learn 2+ — The Hong Kong School Curriculum

A broad and balanced curriculum with diversification and specialisations (choices) for academic, professional and vocational development according to students' needs

Nurturing  
lifelong & self-directed  
learning capabilities

Fostering  
whole-person development

## SEVEN LEARNING GOALS

### FIVE ESSENTIAL LEARNING EXPERIENCES

Moral and Civic Education Intellectual Development Community Service Physical and Aesthetic Development Career-related Experiences

Secondary 4-6

SS

Secondary 1-3

JS

Primary 1-6

P

Kindergarten 1-3

KG

#### Core Subjects

Chinese Language  
English Language  
Mathematics  
Liberal Studies

#### Electives

20 Elective Subjects  
Applied Learning  
Other Languages

#### Other Learning Experiences

Moral and Civic Education  
Aesthetic Development  
Physical Development  
Community Service  
Career-related Experiences

Four Key Tasks: Towards major renewed emphases (MRE) at the JS level and beyond  
STEM education & ITE, Values education (incl. MCE & Basic Law education), Language across the Curriculum (incl. reading), etc.

Chinese  
Language  
Education

Key Learning  
Area

English  
Language  
Education

Key Learning  
Area

Mathematics  
Education

Key Learning  
Area

Science  
Education

Key Learning  
Area

Technology  
Education

Key Learning  
Area

Personal,  
Social &  
Humanities  
Education

Key Learning  
Area

Arts  
Education

Key Learning  
Area

Physical  
Education

Key Learning  
Area

General Studies

Values & Attitudes, Skills and Knowledge

Language

Early  
Childhood  
Mathematics

Nature &  
Living

Self &  
Society

Arts &  
Creativity

Physical  
Fitness &  
Health

#### Values & attitudes

##### Seven priority values

- Perseverance
- Respect for Others
- Responsibility
- National identity
- Commitment
- Integrity
- Care for Others

##### Generic skills

- Basic Skills
- Communication Skills
  - Mathematical Skills
  - IT Skills

##### Thinking Skills

- Critical Thinking Skills
- Creativity
- Problem Solving Skills

##### Personal & Social Skills

- Self-management Skills
- Self-learning Skills
- Collaboration Skills



# Primary

*Knowledge and Agency*



# Junior Secondary

*Application and Passion*





# Senior Secondary

++

*Contextual Discovery*

Fill **5 minutes** of  
traditional subject  
lessons **with relatable  
real world connection.**

Share these  
connections and **build  
community.**

**Encourage** work to be  
created in **different**  
**media.**



One piece of student work can be **shared** with colleagues for appraisal from **other perspectives**.

Focus on **Context.**

Create and train a  
consistent taxonomy  
between Education and  
Industry.

This will benefit all  
education.

## Human Capability Standards Reference Model

The Complete Seven Level Framework

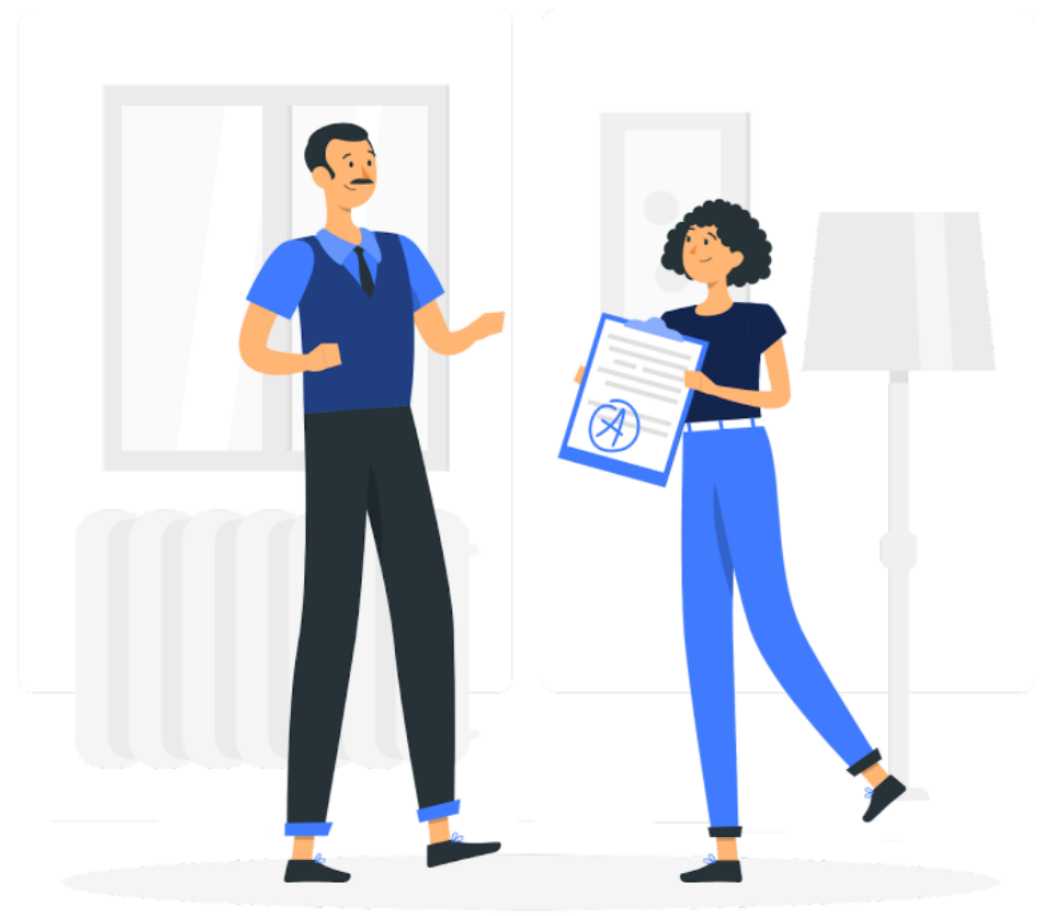


THE INSTITUTE FOR  
WORKING FUTURES

# Defining Assessment

Assessment should be a tool that is utilized to **help learners succeed** by honoring what they are doing well and to provide feedback where work is still needed.

Assessment should **never be punitive**, instead it should simply be a conversation.



**Digital skills** have **never**  
been traditionally or  
**summatively assessed.**



Digital skills are in a state of **constant evolution**.

Not appropriate to  
assess **a single  
moment in time**





Solutions are  
**never complete,**  
they iterate and  
adapt



# What about Micro-Credentials?

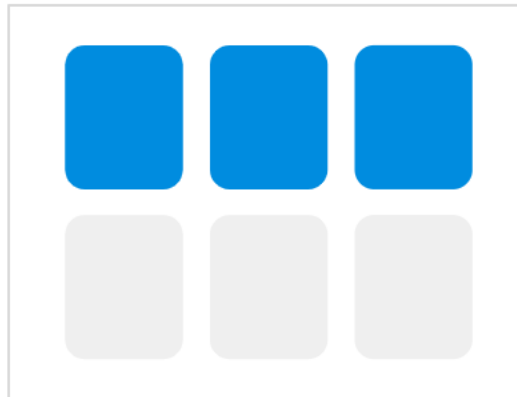
Do they tackle the completion issue?

Current



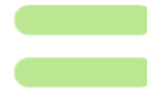
VS

Solution?



# Micro-Credentials have not delivered a solution

- Badging: There are already **1,000,000** of these!
- Still largely **summative** in nature.
- **80%** of people taking have degrees already ([OECD](#)).
- **75%** of courses are only in English.
- **Only 20%** of hiring managers recruit from micro credentials



# What is the hinderance

To evolution?



- From both K-12 to university and from university to work, **evidence** of **suitability** is sought.
- This was traditionally achieved through summatively tested credentials like high school **diplomas** or **degrees**. However these are now a **mismatch** to the skill requirements of careers.
- Summative assessment exacerbates **inequalities** and does not evidence ability and suitability.
- Is the degree just there because of familiarity? “People like us”
- Key is in ongoing **formative assessment** and a **holistic transcript** that **evidences and translates** situations where workforce relevant skills are developed.

# The Opportunity

Connect future career relevant skills derived from the work **produced by students during learning** to credentials, internships, further study and careers through the mediums of **learning data**, portfolio **artefacts** and **reflections** as **evidence** described by a taxonomy common to education and business.



**build**  
something  
different

- Digital needs to become a third core literacy
- It is an educational and economic priority
- Describe digital skills with a unifying taxonomy
- Create a new model of assessment that honors ongoing learning.

# Questions



**build**  
something  
different