UNICEF-UNESCO Dialogue on
Developing Curriculum and Assessment Systems for 21st Century skills

Insights from 2000 to New Normal

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- Chief Executive, Curriculum Development Institute, Education Bureau (1998-2008) – leading curriculum reform since 2000

- Deputy Secretary, Education Bureau (2008-2017) – curriculum, assessment, professional support, IT, quality assurance.

FACULTY OF EDUCATION
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Key Questions

The complexities involved raise many issues among education officials:

How to develop curriculum and assessment frameworks?

1. How to best develop curriculum frameworks to promote 21st Century skills?

2. How to develop assessment frameworks to promote 21st Century Skills?

3. How to align assessment and curriculum frameworks in terms of 21st Century Skills?

4. How can examinations, including classroom based and end-of-cycle assessments, be transformed to measure 21st century skills? Have alternative summative assessments strategies other than examinations been or are being used?

How to implement?

1. What support is needed for teachers and schools to implement those changes?

2. How to implement the changes in teaching and learning systems to support 21st century curricular reforms?

3. How to engage parents, careers and the broader community in relation to understanding and supporting the changes?

What is the impact of COVID-19?

1. Has the response to COVID-19 resulted in alternative assessment strategies being used that have or are proving to be valid and reliable?
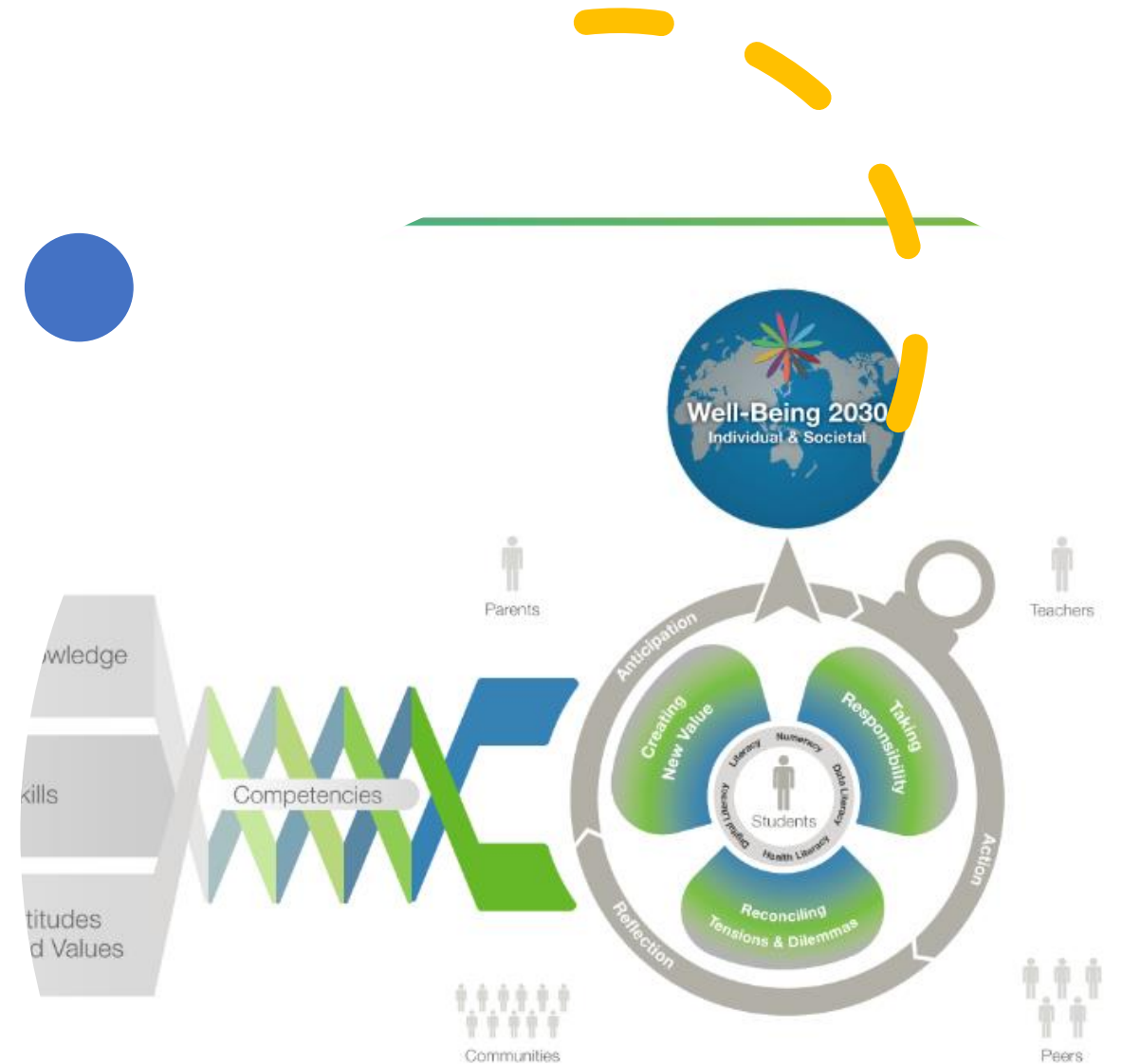
How to develop?
Clear Definitions in Contexts

Competencies

- Starting with 'generic skills' in HK 2000. Applicable across knowledge contexts in Learning to Learn curriculum reform, 2000.

- Consider prior understanding and discourse. Converging ideas.

- A competency is more than just knowledge and skills. It involves the ability to meet complex demands, by drawing on and mobilising psychosocial resources (including skills and attitudes) in a particular context. (OECD, 2005)

A 'curriculum framework'

- an organization of learning elements (knowledge, skills, values and attitudes) for a theme, subject, interdisciplinary study, school curriculum.

- does not prescribe detailed contents, accommodate different knowledge context

V14 OECD Learning Framework 2030

...ning Compass 2030 that shows how young people can navigate their lives and their world. This [...] for the future of education systems. It is about orientation, not prescription.

How to develop?
Careful Selection of Interlocking Learning Elements

Knowledge (8 Key Learning Areas)	Generic Skills (9 skills)	Values & Attitudes (7 priorities)
1. Chinese Language Education 2. English Language Education 3. Mathematics Education 4. Science Education 5. Personal, Social & Humanities Education 6. Technology Education 7. Arts Education 8. Physical Education	• Basic Skills 1. Communication skills, 2. Mathematical skills, 3. Information Technology skills • Thinking Skills 4. Critical thinking skills 5. Creativity 6. Problem solving skills • Personal & Social Skills 7. Self-management skills 8. Self-learning skills 9. Collaboration skills	1. Perseverance 2. Respect for others 3. Responsibility 4. National identity 5. Commitment 6. Integrity 7. Care for others • Moral, Civic, Environmental, National, Sex ....…values

How to develop?

Consistent and Aligned Inclusion in Curriculum Documents

Learning to Learn Report

Aims of Education →
Aims of School Curriculum →
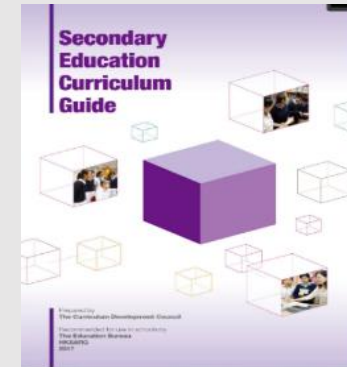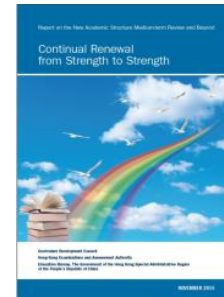Learning Goals at each stage of schooling

Basic/Primary (2002, 2014), Secondary Education Curriculum Guides (2017)

8 KLA Curriculum Guides (2002, 2017)

Various Subject Curriculum Guides

Revised Curriculum and Assessment Guides (CDC, HKEAA)

5

Defining Problem solving skills & in humanities – competencies in contexts

Problem Solving Skills

Problem solving involves using thinking skills to resolve a difficulty. It assembles facts about the problem and determines the best course of action.

Descriptors of Expected Achievements across the School Curriculum	Exemplars of Implementation in Personal, Social and Humanities Education
Key Stage One (Junior Primary) Learners will learn to: • develop ideas about the problem and identify sources of information and help • identify, under guidance, different ways of tackling the problem • choose and implement a solution plan, using support and advice given • follow the given	Learners: 1. understand an environmental problem in their neighbouring areas from various sources of information (e.g. photos, newspaper, parent's comments) and suggest methods to improve the situation 2. understand a personal problem (e.g. emotional, physical or homework) and identify sources of help (e.g. class teacher, parent, brother or sister) 3. identify, under guidance, different ways of maintaining harmonious relationships with family members or peers 4. identify personal safety problems through peer sharing and understand different simple ways of keeping safe and tackling the problem 5. use support and advice given to make personal

Self-management Skills

Self-management skills comprise essential life skills and desirable personal qualities such as maintaining emotional stability, making decisions and exercising self-discipline. Self-management skills enable students to embrace challenges encountered on a personal or team basis.

The expected achievements of the students in this generic skill are classified according to different levels of mastery.

Elements of Self-management Skills	Beginning ------------ Developing ------------ Mastering		
	Students will learn to		
Self-worth	express positive statements about themselves	identify and apply personal skills, values and attitudes to overcome challenges	uphold, synthesise and renew their own beliefs and values
Goal setting and tracking	set goals to assist their learning and personal development	set and keep track of realistic goals	set, keep track of, and be reflective on and accountable for goals which work towards excellence in life
Decision making	make decisions in daily life situations with supporting reasons	list out and evaluate the pros and cons of a suggestion, and make prediction about the consequences of a decision	consider all factors, such as technical, ethical, resource and community considerations before making a decision

Creativity

> Creativity brings in changes or transformations and is manifested in new ideas, acts or products. It emerges spontaneously or through deliberate processes of divergent and convergent thinking. It involves the integration of general or domain-specific knowledge for a meaningful purpose.

Although the expected achievements of the students in this generic skill cannot be suitably classified according to Key Stages, development of creativity involves the following *abilities*, *dispositions* and *favourable factors for nurturing creativity*.

1. Abilities

Abilities	Descriptions
Sensitivity	To discern details from observation and quickly respond to stimulus
Fluency	To generate numerous ideas promptly
Flexibility	To adapt varied ideas and to initiate new thoughts for action
Originality	To produce unusual, novel and unique ideas
Elaboration	To expand, refine and embellish ideas

2. Dispositions

Dispositions	Descriptions
Curiosity	To show interest and desire to find out more
Risk-taking	To show courage and determination to deal with uncertainties or ambiguities
Imagination	To enjoy fantasising and generating new ideas
Complexity	To be attracted to intricacies and novelty; to embrace challenges

Other Core Values:

Core Values: Personal	Sustaining Values: Personal	Core Values: Social	Sustaining Values: Social	Attitudes
❖ sanctity of life ❖ truth ❖ aesthetics ❖ honesty ❖ human dignity ❖ rationality ❖ creativity ❖ courage ❖ liberty ❖ affectivity ❖ individuality	❖ self-esteem ❖ self-reflection ❖ self-discipline ❖ self-cultivation ❖ principled morality ❖ self-determination ❖ openness ❖ independence ❖ enterprise ❖ integrity ❖ simplicity ❖ sensitivity ❖ modesty ❖ perseverance	❖ equality ❖ kindness ❖ benevolence ❖ love ❖ freedom ❖ common good ❖ mutuality ❖ justice ❖ trust ❖ inter-dependence ❖ sustainability ❖ betterment of human kind ❖ national identity	❖ plurality ❖ due process of law ❖ democracy ❖ freedom and liberty ❖ common will ❖ patriotism ❖ tolerance ❖ equal opportunities ❖ culture and civilisation heritage ❖ human rights and responsibilities ❖ rationality ❖ sense of belonging ❖ solidarity	❖ optimistic ❖ participatory ❖ critical ❖ creative ❖ appreciative ❖ empathetic ❖ caring and concerned ❖ positive ❖ confident ❖ cooperative ❖ responsible ❖ adaptable to changes ❖ open-minded ❖ with a respect for ▸ self ▸ others ▸ life ▸ quality and excellence ▸ evidence ▸ fair play ▸ rule of law ▸ different ways of life, beliefs and opinions ▸ the environment ❖ with a desire to learn ❖ diligent ❖ committed to core and sustaining values

Learning to Learn 2+ - The Hong Kong School Curriculum

2017

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

Multiple pathways

Life-wide Learning

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

Core Subjects
Chinese Language
English Language
Mathematics
Liberal Studies

+

Electives
20 Elective Subjects
Applied Learning
Other Languages

+

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

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

A coherent curriculum framework

| Chinese Language Education	English Language Education	Mathematics Education	Science Education	Technology Education	Personal, Social & Humanities Education	Arts Education	Physical Education
Key Learning Area	Key Learning Area	Key Learning Area	Key Learning Area	Key Learning Area	Key Learning Area	Key Learning Area	Key Learning Area

General Studies

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

Kindergarten 1-3

KG

Values & attitudes, Skills and Knowledge

Language	Early Childhood Mathematics	Nature & Living	Self & Society	Arts & Creativity	Physical Fitness & Health

Life-wide Learning

Secondary Education Curriculum Guide (CDC, 2017)
Central curriculum with school-based flexibilities

- https://www.edb.gov.hk/en/curriculum-development/renewal/guides_SECG.html
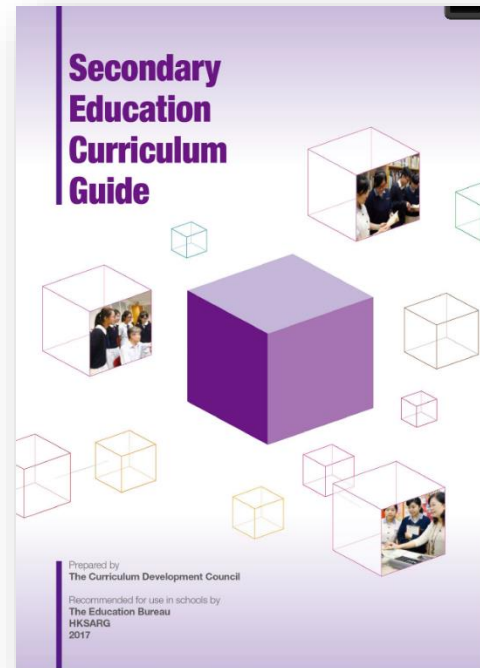
Ongoing Renewal of the School Curriculum

Home | The School Curriculum Framework | Curriculum Guides | Documents on Feedback Collection | Professional Development Programmes | FAQ | Useful Links

Secondary Education Curriculum Guide (2017)

Introduction

Booklet 1: Ongoing Renewal of the School Curriculum

Booklet 2: Learning Goals, School Curriculum Framework and Planning

Booklet 3: Effective Learning and Teaching: Developing Lifelong and Self-directed Learners

Booklet 4: Assessment Literacy and School Assessment Policy

Booklet 5: Embracing Learner Diversity

Booklet 6: Four Key Tasks: Towards Major Renewed Emphases

Booklet 6A: Moral and Civic Education: Towards Values Education

Booklet 6B: Reading to Learn: Towards Reading across the Curriculum

Booklet 6C: Project Learning: Towards Integrating and Applying Knowledge and Skills across Disciplines

Booklet 6D: Information Technology for Interactive Learning: Towards Self-directed Learning

Booklet 7: Life-wide Learning and Experiential Learning

Booklet 8: Interfaces between Key Stages 2 and 3 and Key Stages 3 and 4

Booklet 9: Career and Life Planning – Multiple Pathways for All Students to Excel

Booklet 10: Quality Learning and Teaching Resources

Booklet 11: Professional Development and Schools as Learning Organisations

Diverse Learning and Teaching Strategies
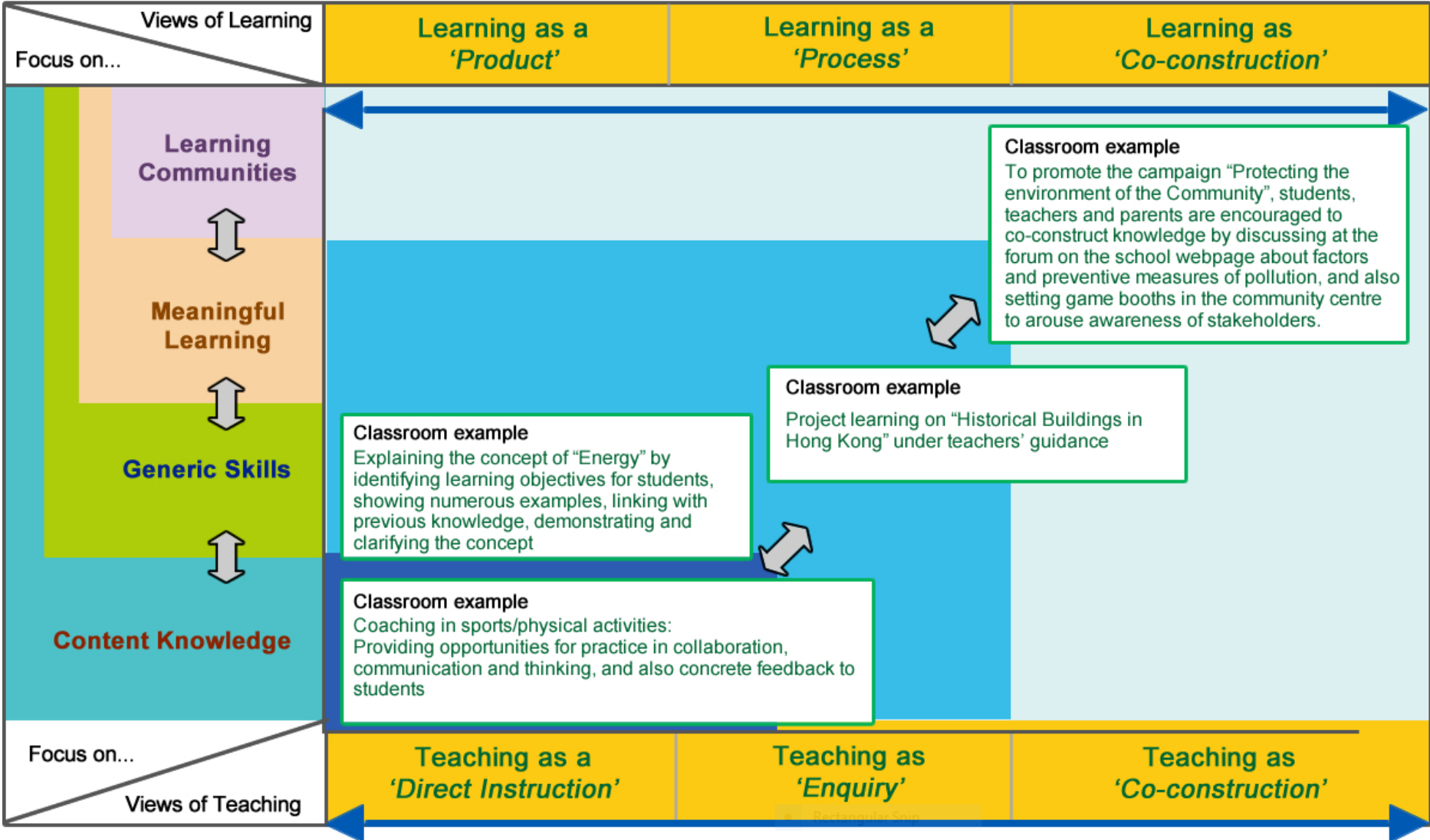
Strategic Directions and Key Tasks
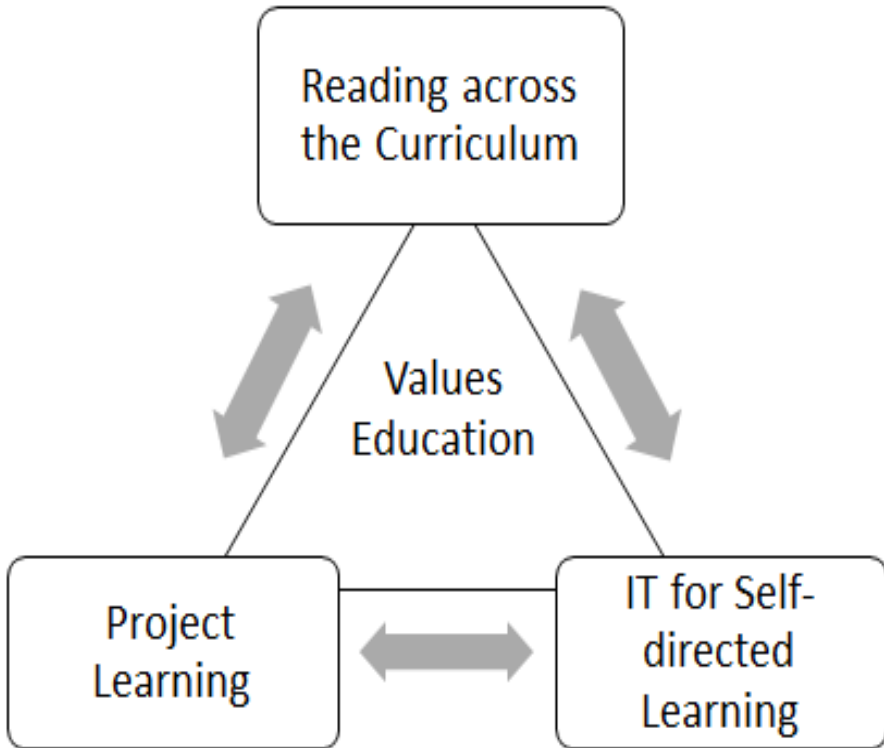
Updated Four Key Tasks as Entry Points
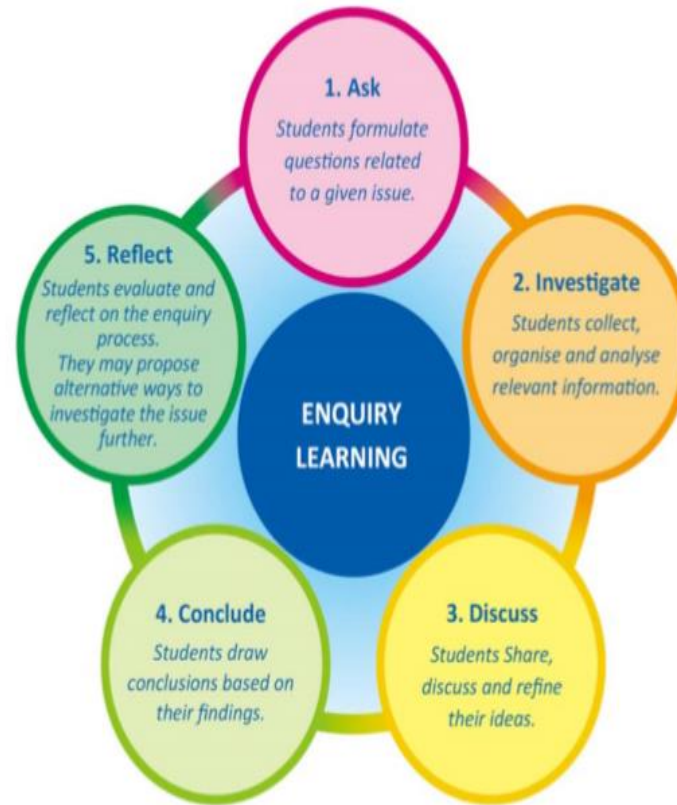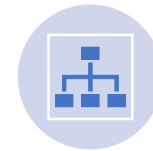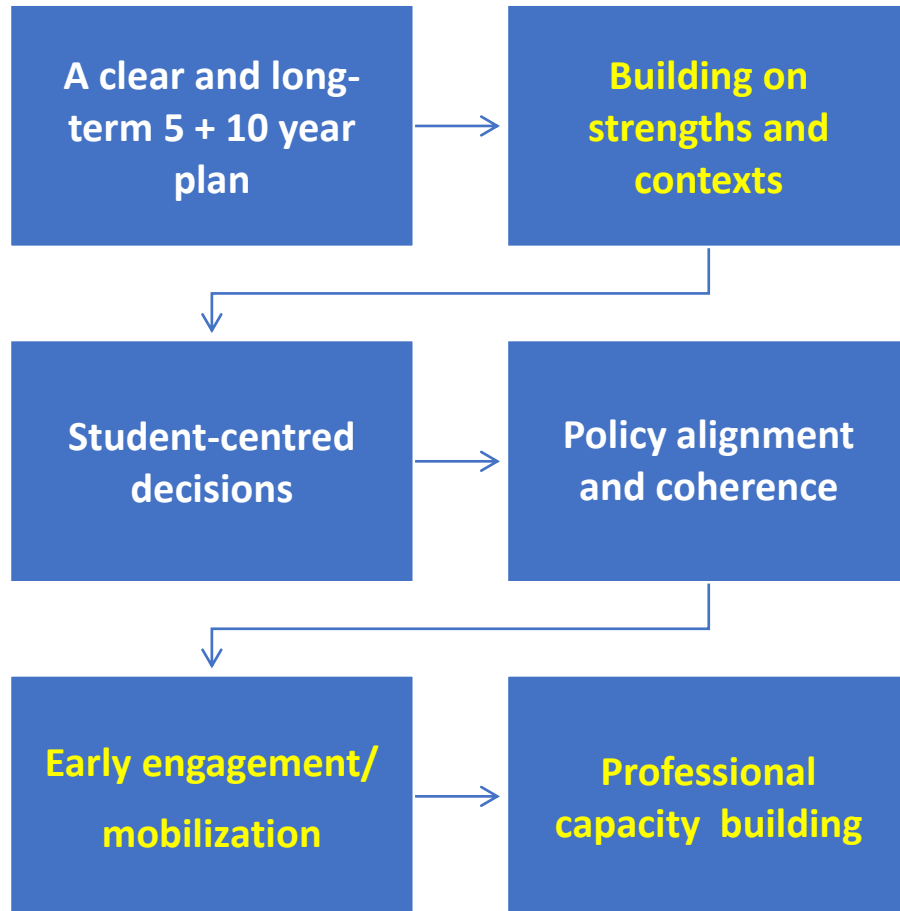

Figure 3.2 Process of Enquiry Learning

Figure 6D.1 Features of e-Learning

How to implement? Incremental & Co-ordinated Changes at All Levels

	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
Kindergarten				**Curriculum**								**Revised Curriculum**		
Primary & Junior Secondary		**1st Five Year Plan Adoption of Curriculum Reform** **On-going evaluation**					**2nd Five Year Plan School-based Curriculum with Adaptation**							
Senior Secondary			Old School Certficate & Advanced Level 40% study in Advanced Level **Three consultation stages, preparation**					**New Senior Secondary for ALL students** **On-going evaluation**						
University						Old 3-year programme **Consultation, Preparation**						New 4 –year programme		

How to implement? Twelve principles

A clear and long-term 5 + 10 year plan	Building on strengths and contexts
Student-centred decisions	Policy alignment and coherence
Early engagement/ mobilization	Professional capacity building

Organisational structuring

Careful, feasible and well co-ordinated

Psychological preparation, patience, trust

Effective communication

On-going evaluation

Professional accountability

From Disruptive Schooling to New Normal

Before COVID-19 → School suspension → **Impact** → Balancing → **Reconceptualising /Reimagining**

Before COVID-19

- Basic domain Knowledge (condense?)
- Competencies
- Values and attitudes
- Curriculum framework
- Classroom-oriented, blended
- Homework & school assessment
- Public assessment
- Vocational
- Professional standards
- Quality Assurance of schools

On-line/home learning

Students

- Self-motivation and self-directed
- Allow more selections, autonomy
- Peer interactions
- Multiple technological tools
- Unleashing potential
- Learning to learn
- Digital divide, competencies, well-being in lower SES students?

Teachers

- Paradigms change
- Workload, well-being

Increasing →

Reconceptualising /Reimagining

- Reduced School-based Assessment in Public Exam (2021)?
- Uncertain time-tabling to flexible time-tabling
- Re-defining core learning?
- Enhancing learning technology
- Individual care
- Teachers change ?

Practical experiences

- Learning by doing
- Maker mindset
- Experiential learning
- Virtual informal, non-formal learning
- Workplace norms
- Collaboration
- Problem-solving
- Real-life Learning

Challenges

1. Sustaining communication and good practices
2. Evaluation, research and timely feedback
3. Pressure of public examinations
4. Parent and societal views about learning and education
5. Changing technologies and economies

Questions are welcome!

Thank You
ขอบคุณ
Terima kasih