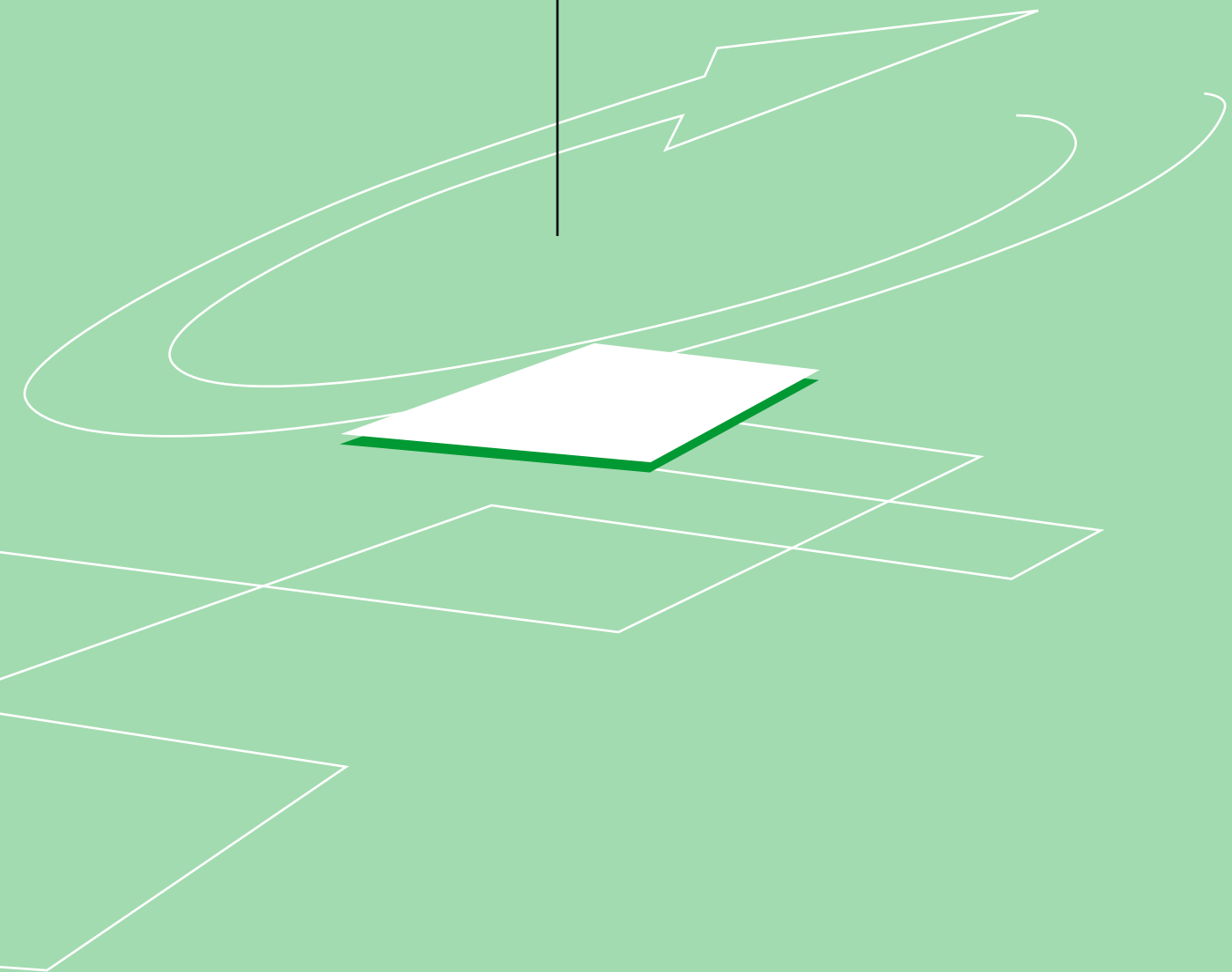


Chapter 4

How to Act-Effective Learning, Teaching and Assessment



- The suggested actions of this chapter are written for the reference of all those who help students develop independent learning in KLAs, and achieve other learning goals in different contexts. Learning, teaching and assessment are core activities which have impact on student learning.
- The suggested actions are informed by authentic and practical experiences in Hong Kong schools, local research, and emerging useful practices based on learner-centred principles. Exemplars of some actions are offered in the folder of exemplars.
- The suggested actions attempt to strike a balance between the guidance provided by adults to students, and the need to promote students' learning capabilities. They also help to move away from knowledge transmission to a balance of knowledge acquisition and knowledge construction from the perspective of students.
- Some suggested actions have impact on learning and teaching via the structure and processes of school organisations and management (items 1, 2, 3 and 4). Some actions have direct impact on student learning inside and outside the classroom (items 5, 6, 7, 8, 9 and 10). Some actions involve significant partnership with other organisations and people outside schools (items 11, 12 and 13). They are not separate processes, but linked to one another.

Actions via school structure, processes and management

1. Learning opportunity and learning environment
2. School-based curriculum development
3. Collaborative lesson preparation time
4. Learning time and time-table

Actions with direct impact on learning and teaching inside and outside classrooms

5. Effective learning and teaching strategies
6. Assessment for learning
7. Four key tasks - moral and civic education, reading to learn, project learning, information technology for interactive learning,
8. Effective use of textbooks and learning/teaching resources
9. Catering for learner differences
10. Homework

Actions via partnership with other organisations and sectors

11. Life-wide learning opportunities for whole-person development

12. Smooth transition between Kindergarten and Primary School, and Secondary School

13. Home-school co-operation

- Readers' attention is particularly drawn to item 7, which offers direct help to teachers on the four key tasks that help learning to learn in the contexts of KLAs or across KLAs.
- Exemplars are provided in a folder accompanying this report to illustrate some of the crucial points, and more detailed exemplars are provided in the curriculum bank (<http://cd.ed.gov.hk>) and will be developed in fuller scale as part of the development strategies.

Actions via School Structure, Processes and Management

1. Learning Opportunity and Learning Environment

- "Learning opportunity" explains where and why students can learn or cannot learn. All students should be entitled to learning opportunities for whole-person development. We should optimise the learning opportunities for students and remove practices that constrain them.



Refer to Exemplar

I. 6.2 The Provision of Equal Learning Opportunities for Students of Both Genders

DOs	DON'Ts
<ul style="list-style-type: none">• <i>appreciate efforts made by students and provide a supportive environment</i>• <i>encourage students to explore and enquire</i>• <i>structure the discussion so that students can express themselves</i>• <i>listen to students' views and respond patiently</i>• <i>show respect, concern and appreciation when interacting with students</i>	<ul style="list-style-type: none">• <i>don't always give one-way instruction</i>• <i>don't pose questions to which there is only one answer</i>• <i>don't ignore students who need special help and guidance</i>• <i>don't force students to do excessive mechanical drills</i>• <i>don't assess students' performance solely by paper-pencil tests and formal examinations</i>

- *stimulate students' thinking by using open-ended question and answer techniques*

- *give appropriate guidance and encouragement to students according to individual needs*

- *cultivate moral values in students by setting a good example*

- *don't plan for a tight curriculum schedule*

- We should provide a range of environments needed by students of the 21st Century: the school, classroom, community, home, physical environment, Internet and work place. These are necessary for providing relevant, authentic and meaningful learning experiences to students.
- The government should help schools to improve physical qualities such as adequate and flexible use of space, ventilation, lighting and furnishings.
- Schools should ensure a safe and caring environment free from threats, humiliation and embarrassment. Students learn well when their emotions are stable and positive. We should try to avoid behaviours that hurt the self-esteem, motivation and confidence of students.
- We should provide room for students to pursue collaborative and independent learning.
- We should respect students' diverse dispositions and achievements within the school ethos.

School-based Curriculum Development is not :

- ✗ deletion of subject content only
- ✗ compilation of school-based curriculum package
- ✗ teachers working alone

2. School-based Curriculum Development

What is school-based curriculum development?

- It is a common but mistaken belief that the curriculum is "given" and delivered mainly through the coverage of a prescribed syllabus and text. This has proved to be ineffective in students' learning both in Hong Kong and overseas. The concept of school-based curriculum development is used to rectify this misconception.

School-based Curriculum Development

- ✓ following direction and learning targets of CDC
- ✓ helping students achieve learning targets
- ✓ building on strength of schools and needs of students
- ✓ developing teachers and collaborating with other partners
- ✓ varying choice of subjects/organisation of contents
- ✓ developing learning, teaching and assessment strategies
- ✓ adapting learning resources
- ✓ using time flexibly
- ✓ reflecting and improving based on informed practice

- Schools and teachers are encouraged to adapt the central curriculum and develop their own school-based curriculum to help their students achieve the learning targets (knowledge, generic skills, values and attitudes). Measures include varying the organisation of contents, contexts and examples, learning and teaching strategies, pace of learning and teaching, homework, criteria and modes of assessment. Schools, nevertheless have to fulfil certain CDC requirements such as learning time, learning targets, and essential contents.
- A school-based curriculum is therefore the outcome of a balance between guidance from the CDC and the autonomy of the school and teachers. It is jointly owned by schools and the government. The balance is subject to change over time, as policy and school decisions change.
- School-based curriculum development must be accompanied by professional development of teachers and school heads.

Who does what?

- The CDC is responsible for setting curriculum development directions, curriculum aims and curriculum guides for schools to adapt.
- The CDI is responsible for working with partners (e.g. schools, universities, professional bodies). The purpose is to generate knowledge of learning and teaching strategies, different assessment modes, curriculum organisation and design, etc. through conducting research and developing projects in schools to illustrate how the aims and guidelines are realised. Good practices will also be disseminated through various means such as web sites. On-site professional support for curriculum development is also provided to help schools.
- On the one hand, schools have to follow some basic requirements to ensure that students receive their entitlement to the same learning opportunities, such as time allocation and core contents. On the other hand, they should adapt the central curriculum to suit the needs and interests of the students, the context of the school, the readiness of the teachers, and the leadership of school heads and principals. This work involves schools in developing and trying out their own initiatives, referring to the informed practices and knowledge generated, diversifying learning and teaching strategies, selecting learning and teaching materials from textbooks and other sources, designing/reviewing the assessment practices and homework needed for different purposes of learning, and catering for the learning needs, styles and abilities of their students.

Why school-based curriculum development?

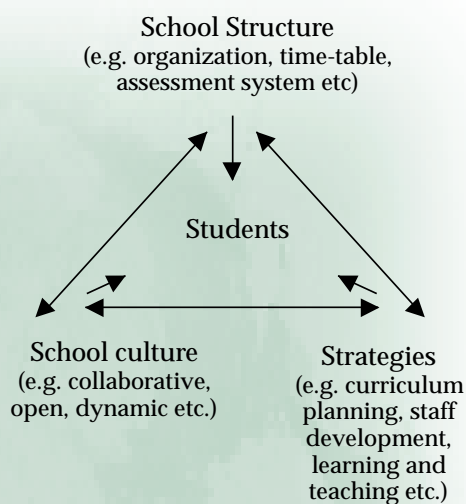
- The concept of "one-size fits all" does not work. Each school has its unique characteristics of teachers, students and ecological context, requiring different content and processes of change.
- School-based curriculum development allows for flexibility in the use of time, space and environment, to accommodate the characteristics described above.

What are the goals of school-based curriculum development?

- Short-term (2001-02 to 2005-06):
 - ⇒ Different schools may have different starting points. Each school should review its current position and formulate its own curriculum development plan according to its own readiness and circumstances.
 - ⇒ The baseline is to promote learning to learn through four key tasks (moral and civic education, reading to learn, project learning and information technology for interactive learning), strengthening development of critical thinking, creativity and communication skills in learning and teaching, and focuses of action in KLAs in Chapter 3.
 - ⇒ Schools which are ready to do so are encouraged to try developing school-based curricula. They may start on a small scale first, e.g. by using the different modes shown below.
- Medium-term (2006-07 to 2010-11):

Building on the strengths and experiences developed during the short-term phase, schools will proceed to the next stage of their curriculum development plans, to develop school-based curricula and further improve learning and teaching strategies.
- Long-term (beyond 2011):

Schools will make good use of effective learning and teaching strategies to help students attain all-round development and life-long learning, and put in place school-based curriculum which suit their students' needs.



School Structure, School Culture and Strategies, which are inter-related, have certain influence on Students' learning

What are the important factors for school-based curriculum development?

- Teacher readiness, leadership and professional development of school heads and principals; engagement and ownership; incremental strategies; external support based on diversified collaborative models; and a strong focus on students' learning
- A holistic approach, which includes professional leadership, corresponding structural change (e.g. time-table, frequency of tests and examinations, class and classroom arrangement, etc.), organisational development (e.g. teachers' professional development and capacity building, etc.), and resource allocation
- Finding time for teacher collaboration, allowing more professional autonomy, building up teachers' confidence through rapport with peers and support from external agents
- Coherence of curriculum strategies and initiatives to avoid fragmentation and overloading

How to develop a school-based curriculum?

- Some schools adopt a more top-down model by developing a school curriculum policy, assigning curriculum coordinators to write up adapted school-based curriculum programmes and instructing teachers to implement the programmes.
- We recommend a more dynamic and interactive model through the setting up of "curriculum development groups" (CDGs) in schools, as a strategic way to facilitate teacher development and school-based curriculum development.
 - ⇒ These groups usually consist of teachers within the same KLA at the same level, interested in a task or project within their own KLA, or with other teachers across KLAs or across levels. A project should always have the learning targets/objectives in mind and have concern for the kind of difficulties students may experience. The groups can find common lesson preparation time to discuss issues related to learning and teaching in their own classrooms, adapt textbook materials and other learning materials, and develop strategies based on theories or other research findings to improve students learning, etc.
 - ⇒ There is strong evidence to show that support from external agents, such as ED or university partners, in the form of regular school visits and collaborative lesson preparation with teachers is most effective especially at the initial stage.



Refer to Exemplar

VI. 4 在創意中成長－推展校本課程的「由下而上」策略



Refer to Exemplar

VI. 5 School-based Curriculum Change



Refer to Exemplar

VI. 1 校本課程發展模式 -
「點、線、面」



Refer to Exemplar

VI. 3 課程發展，全校參與



Refer to Exemplar

VI. 2 校本課程發展歷程

- The following modes of school change are observed:

⇒ *"From point, line to area" approach:*

- ◇ Starting with one CDG in one KLA at one level in the first year, usually supported by an external agent from CDI.
- ◇ Dissemination of informed practices and successful experiences to teachers in the same school so as to develop CDGs in other KLAs and eventually throughout the whole school.

⇒ *Whole - school approach*

- ◇ Setting up different CDGs in different KLAs to make sure that everyone is involved.
- ◇ CDGs are supported either by external agents from different sources e.g. ED, tertiary institutes etc., or by curriculum leaders who have emerged from previous curriculum development teams.

⇒ *Integrated team approach*

- ◇ Setting up a large team of teachers from different KLAs to complete a large-scale project, usually on integrated studies.
- ◇ Teachers will help form CDGs in their own KLAs after they have mastered the skills and strategies of curriculum design.

- There are always other modes of school change generated by the different needs and contexts of schools.

- The following stages of curriculum development are observed in some schools to illustrate increasing depth of work:

- ⇒ Curriculum tailoring in the mid-1990s (in the form of restructuring and re-organisation of textbooks).
- ⇒ Curriculum adaptation in 1999 (trying out learning, teaching and assessment strategies, accompanied by structural change such as in the time-table arrangement or the test and examination system).
- ⇒ Curriculum research and development in 2000 (inquiring into practical problems, e.g. why students lack the incentive to write, and exploring means to tackle these problems through development strategies and collecting evidence to inform practice).



Refer to Exemplars

VII. 1 共同備課

VII. 2 Collaborative Lesson Preparation

VII. 3 Collaborative Lesson Preparation

3. Collaborative Lesson Preparation

What is collaborative lesson preparation?

- There is a misconception that collaborative lesson **preparation** is the time for teachers to meet and come to a consensus on trimming the number of chapters to be covered or the topics to be taught.
- Collaborative lesson preparation does more than that. It allows teachers, usually in a group (CDG), time and space to discuss and work on the design, learning and teaching strategies, assessment modes, etc. of one or a series of classroom lessons, to improve learning and teaching.
- There is evidence that collaborative lesson preparation contributes to effective learning and teaching.

Why collaborative lesson preparation?

- It allows teachers to focus directly on actual classroom practices, and to reflect and improve on action taken, based on evidence from students' feedback. The knowledge generated helps to inform further practice and decisions.
- It provides the context for teacher interaction, development and mentoring, thus fostering a collaborative and interdependent culture.
- It provides a platform for continuous improvement through developing and trying out new learning and teaching strategies, assessment modes, curriculum design and organisation, etc.

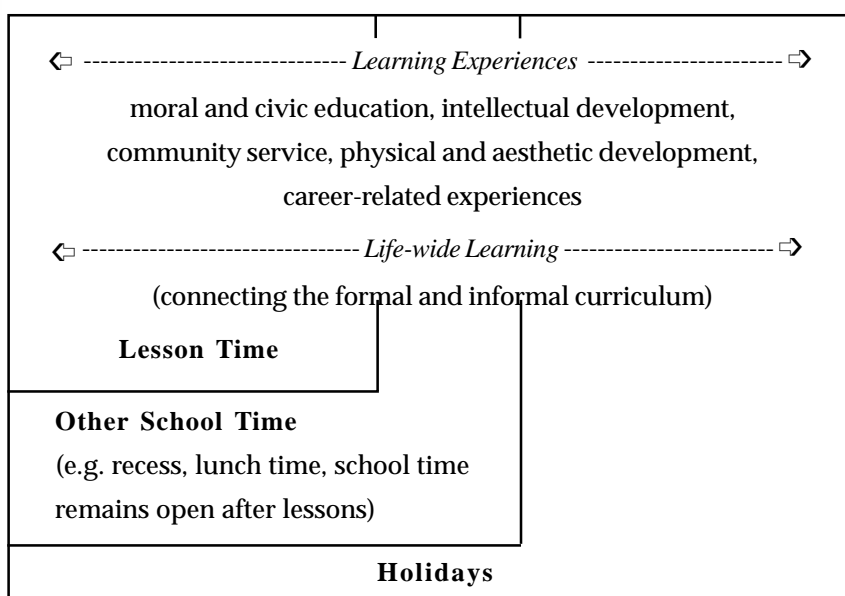
What to focus on in collaborative lesson preparation?

- The main focus is to enhance students' capabilities in learning to learn through the study of KLAs and in other contexts.
- Priority is given to the generic skills of communication, creativity and critical thinking, and to core values of national identity, responsibility, respect for others and perseverance, through the study of KLAs and in other contexts.
- Specific questions to be discussed are:
 - ⇒ How can my/our students' capabilities in these areas be developed in more powerful ways in my classroom?
 - ⇒ How can I/we make this happen?
 - ⇒ How can I/we tell that my students' capabilities in these areas are being improved?

4. Learning Time and Time-table

- Students can learn different things at different times and in any place. The learning time of students includes:
 - ⇒ Holidays (time outside schools)
 - ⇒ School time other than lesson time (such as recess, lunch, after-school time, open days, examination days)
 - ⇒ Lesson time (time when there is close contact with teachers, normally in the classroom, but not necessarily so)

Components of Learning Time



- Schools can guide students to make good use of their holidays, while respecting students' personal autonomy to use their holidays well. Holidays are good opportunities for students to learn independently according to their interests, to develop interpersonal skills, and to pursue other areas of whole-person development and potential, e.g. aesthetic and physical activities. It is the quality of learning rather than the quantity of activities that matters.
- A positive, trustful and caring environment during school time other than lesson time is essential for whole-person development, whereas the opposite defeats all the good intentions of learning and teaching. Schools can provide opportunities for students to develop interpersonal relationships; self-management and leadership qualities; responsibility and commitment through taking part in activities which serve the school; and exposure to career-related experiences.

- Schools are advised to follow the suggested allocation of lesson time in KLAs and other activities essential for engaging students in learning and teaching as desired by the curriculum and for giving every student the same opportunities to learn. (The suggestions below have drawn on the set of Guides to the Curriculum at various levels of schooling published in 1993 and the latest international comparisons.)
- In addition, schools are encouraged to use their professional autonomy to decide on how to use the time flexibly to suit the needs of the specific students and contexts of their schools.

Suggested Lesson Time Allocation for Different Stages of Schooling

Primary

Key Learning Areas		Suggested Percentage
Chinese Language Education		25% - 30%
English Language Education		17% - 21%
Mathematics Education		12% - 15%
Science Education	General Studies for Primary Schools	12% - 15%
Technology Education		
Personal, Social and Humanities Education		
Arts Education		10% - 15%
Physical Education		5% - 8%

Junior Secondary

Key Learning Areas	Suggested Percentage
Chinese Language Education	17% - 21%
English Language Education	17% - 21%
Mathematics Education	12% - 15%
Science Education	10% - 15% 8% - 10% ⁽¹⁾
Technology Education	8% - 15% 25% - 35% ⁽²⁾
Personal, Social and Humanities Education	15% - 20% 10% - 15% ⁽³⁾
Arts Education	8% - 10%
Physical Education	5% - 8%



Refer to Exemplar

VIII. 2 新時間表架構的試驗

- (1) The time allocation of 8% to 10% is intended for schools whose curriculum has a technology education orientation. This curriculum should connect students' learning experiences in science and technology education.
- (2) For schools where technology subjects are better vehicles for their students to develop generic skills, the time allocation for technology education could be 25%-35%. Some learning elements in technology subjects, for example, Design Fundamentals, Graphical Communication, etc., are already embedded in other KLAs (such as Arts Education, Science Education, Personal, Social and Humanities Education). In these schools, the lesson time, in terms of percentages allocated to other Key Learning Areas, could be adjusted accordingly.
- (3) The time allocation of 10% to 15% is intended for schools whose curriculum has a technology education orientation, such that the essential contents for personal, social and humanities learning, including Chinese history and culture, can be accommodated.

- For Senior Secondary (S4-5 and S6-7), flexibility is given to schools to allocate lesson time according to the needs of the students and the characteristics of the school, for both examinable, and non-examinable subjects. At the same time, schools must bear in mind the aims of education and provide all the essential learning experiences: **moral and civic education, intellectual development, community service, physical and aesthetic development and career-related experiences.**
- A substantial amount of time should be allocated to **promoting reading** in the form of library periods, language classes, or other forms of reading time.
- Schools should review yearly how much learning time students have in school, and how effectively it is used. Over-assessment and activities without student engagement deprive students of meaningful learning time.



Refer to Exemplar

VIII. 1 School Time - table
Arrangement - Cross
Level Subject Setting

Time-table

- Schools and teachers can facilitate effective student learning by improving the class time-table. A more flexible time-table arrangement will help learning and teaching by facilitating, for example, the organisation of activities of different duration to suit different students needs and learning targets, the consolidation of learning, collaborative learning and teacher-pupil interaction.
- The following are some suggestions on time-tabling arrangements:
 - ⇒ Reduce excessive dictations, tests and examinations to release learning time for more useful learning activities
 - ⇒ Flexible use of lesson time such as more double periods, longer periods, a combination of long and short periods, periods for reading and collaborative learning, e.g. thematic study, project learning



Refer to Exemplars

VIII. 3 靈活運用上課時間
VIII. 4 全日制小學時間表