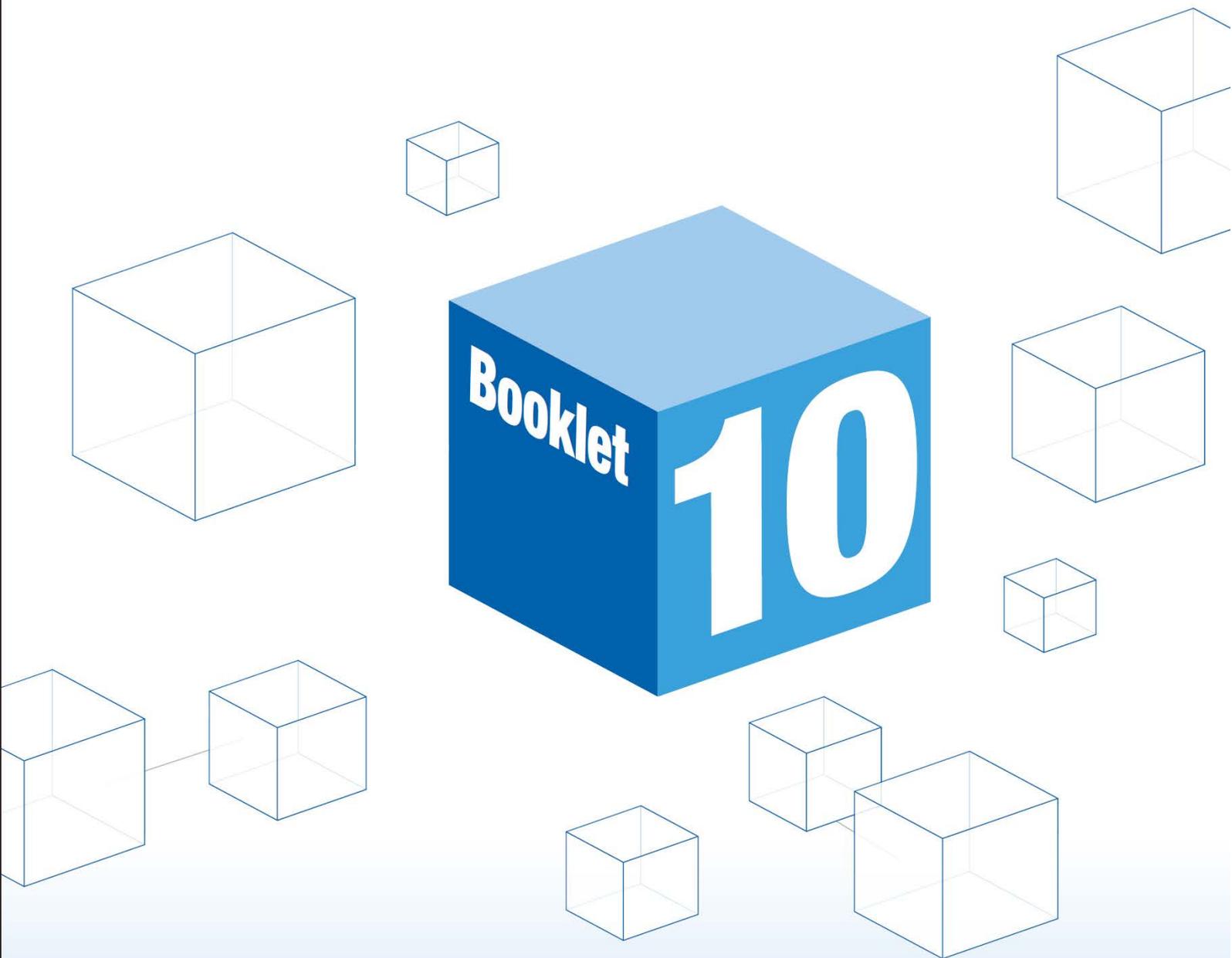# Quality Learning and Teaching Resources

Booklet **10**

Booklet 10 Quality Learning and Teaching Resources

This is one of the 11 Booklets in the *Secondary Education Curriculum Guide*. Its contents are as follows:

Contents of Booklet 10

10.1   Background

- Apart from an open and flexible central curriculum[1] framework which is adaptable to the needs of students, an environment with the provision of quality learning and teaching resources can facilitate a variety of learning experiences and enhance learning and teaching effectiveness.

- With the rapid development of information technology (IT) in the past decade and the advent of the digital age, new types of learning and teaching resources have emerged, making a noticeable impact on the ways of learning and teaching. The increasing use of electronic resources has become a major global trend in education.

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[1] Central curriculum refers to the school curriculum recommended by the Curriculum Development Council. Please refer to the Glossary of this Guide) for further details.

- Coupled with the launching of the Education Bureau (EDB)'s Fourth Strategy on IT in Education (ITE4), the use of electronic resources in the classroom is becoming increasingly common. Building on the advantage of electronic resources, teachers can easily update and adapt different forms of resources and customise them to suit individual students' needs. With the help of technology, students need not rely solely on the information printed in textbooks published months or years ago. They can access the most up-to-date information and even make their own learning materials, contributing to more personalised and self-directed learning.

- Effective use of resources, including traditional and electronic ones, is a challenge as well as opportunity to both teachers and students. In view of the large quantity of information that can be obtained on the Internet and from the social media, while teachers need to develop skills in selecting suitable online resources and making effective use of them to support curriculum development, meet the diverse needs of students, enhance the quality of learning and teaching, and promote lifelong learning, student also need to develop ability and attitude that lead to effective and ethical use of information as well as habits of gathering information from various sources to examine belief, eliminate biases and check the balance of views.

10.2   Purposes of the Booklet

- To introduce the sources, types and functions of learning and teaching resources

- To introduce the strategies for selecting quality resources, and effective development and management of learning and teaching resources

- To provide suggestions on the effective use of quality resources with examples

10.3   Quality Learning and Teaching Resources

- Quality learning and teaching resources facilitate interactions among students and teachers, and inspire students to learn and meet different learning needs. They can also arouse students' interest in learning, and engage and involve them in learning independently beyond the classroom.

- Effective use of learning and teaching resources can motivate students to learn actively, broaden and deepen their learning experiences and develop their positive values and attitudes. It can also help nurture students' generic

skills and enhance their self-directed and independent learning capabilities, thereby laying a solid foundation for lifelong learning and the acquisition of essential skills and qualities required in the 21st century.

Reflective Questions

✧ What kinds of learning and teaching resources do you use in your school?
✧ What learning effects can the use of different types of learning and teaching resources bring to your students?
✧ How do you choose suitable learning and teaching resources?

• Other than textbooks, learning and teaching resources are available from the EDB, other government departments, non-governmental organisations and education-related organisations. Resources from various sources can provide opportunities for students to learn in different environments and through various ways. Students become more motivated in learning when they interact with a variety of learning resources and acquire varied learning experiences.

Figure 10.1   Sources, Selection and Use of Learning and Teaching Resources
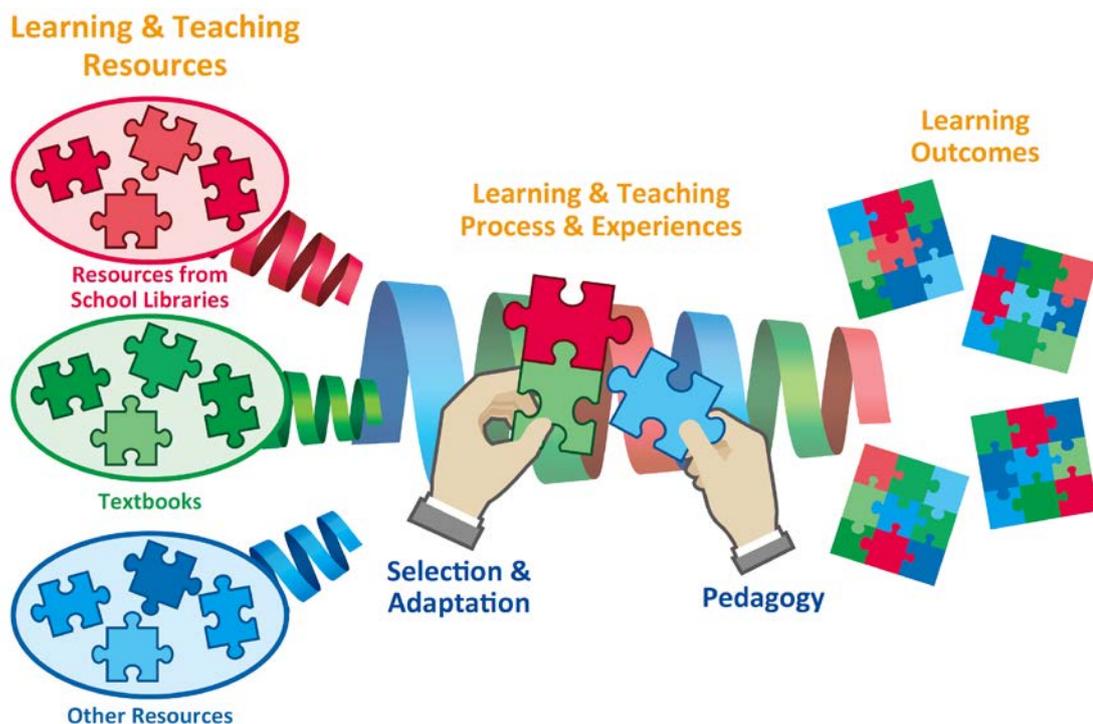
10.3.1 Textbooks

- Students' access to quality textbooks at different key stages of learning is important. Textbooks are not only materials for teachers and students to use during lesson time, but also resources for students to do preparation, revision and self-learning beyond lesson time.

- Schools may refer to the Recommended Textbook List (RTL) in the selection of printed textbooks. Since the launch of the Recommended e-Textbook List (eRTL) for e-textbooks developed under the e-Textbook Market Development Scheme (EMADS)[2] in 2014, schools have been provided with more options for the selection of learning and teaching resources apart from printed textbooks.

- Quality textbooks, regardless of whether they are printed or electronic, are complete sets of learner-focused, comprehensive and self-contained curriculum materials designed to support the implementation of specific subjects with reference to the curriculum documents prepared by the Curriculum Development Council (CDC). Textbooks provide materials to facilitate students' reading of appropriate subject content, sharing of learning experiences and collaborative learning as well as to engage students in interesting learning and teaching activities to practise and apply new knowledge. These materials are also designed to help teachers plan for learning and teaching to achieve the curriculum objectives.

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[2] The e-Textbook Market Development Scheme (EMADS) was first launched in June 2012 and aimed to facilitate and encourage the participation of potential and aspiring e-textbook developers to develop a diverse range of e-textbooks in line with the local curricula as alternatives to printed textbooks. Having undergone the field tests and quality assurance mechanism, the e-textbooks developed by successful applicants under EMADS have been included on the EDB Recommended e-Textbook List (eRTL) for schools' consideration in the selection of textbooks.

Criteria for Quality Textbooks
(Printed and e-Textbooks)

The EDB has developed a set of Guiding Principles for Quality Textbooks (Guiding Principles) to provide criteria for schools and teachers in selecting quality textbooks for their students. The criteria for quality textbooks are put in the following areas:

- **Content**
- **Learning and Teaching**
- **Structure and Organisation**
- **Language**
- **Textbook Layout** *(for printed textbooks)*
- **Pedagogical Use of e-Features** *(for e-textbooks)*
- **Technical and Functional Requirements** *(for e-textbooks)*

The Guiding Principles are generic and central to textbooks for kindergartens, all Key Learning Areas (KLA) and subjects at primary and secondary levels, although some principles may be more applicable to certain subjects and levels than others. Schools and teachers may refer to these criteria and develop the school-based "Textbook Selection Criteria" for a specific subject, level or key stage.

The Guiding Principles are updated from time to time in view of the ongoing renewal of the school curriculum. School and teachers have to visit the following EDB webpage for the latest version of the Guiding Principles for reference:

http://www.edb.gov.hk/en/curriculum-development/resource-support/textbook-info/GuidingPrinciples/index.html

Further details and examples specific to different KLA/subject curricula can be found in the relevant curriculum guides.

Figure 10.2 Criteria for Quality Textbooks
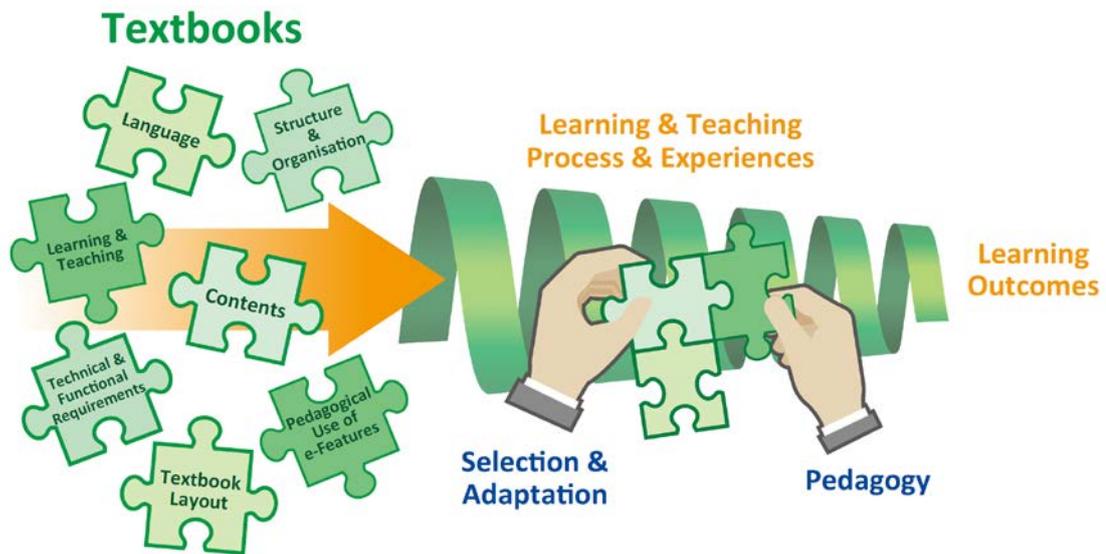
A. Selection of Textbooks

- The EDB provides the RTL (http://www.edb.gov.hk/rtl) and the eRTL (http://www.edb.gov.hk/ertl) for schools' reference in the selection of textbooks. The textbooks on the RTL and eRTL have been reviewed and considered acceptable under a stringent quality assurance mechanism. However, the use of textbooks on the lists is not mandatory. Teachers may refer to the EDB website (http://www.edb.gov.hk/textbook) for details on "Textbook Information".

Example 1: How a School Goes about Selecting Textbooks

Initial Selection

- Develop school-based "Textbook Selection Criteria" with reference to the EDB's "Criteria for Quality Textbooks".
- Browse through all textbooks of the same subject within the same level with reference to the RTL and eRTL.
- Select certain chapters/units/booklets from different sets of textbooks for initial comparison.

Final Selection

- Make detailed comparisons and analysis of the textbooks from the initial selection with reference to the school's "Textbook Selection Criteria" and textbook prices.
- Make final decision after thorough discussion and corporate judgement.
- Document the selection procedures and results.

Parent-School Communication

- Inform parents of the results of the textbook selection through various means such as the Parent-Teacher Association.

Submit the results to SMC/IMC

- Submit the selection results to the School Management Committee or Incorporated Management Committee for their approval.

Reflective Questions

✧ What is the textbook selection mechanism in your school or panel?

✧ In what ways could your school or panel improve the selection procedures so that quality textbooks could be chosen for the benefit of your students, e.g. in terms of difficulty level, learning and teaching activities, price?

B. Effective Use of Textbooks

- When using textbooks, teachers have to understand the strengths and limitations of textbooks. No textbook is perfect and no textbook is complete. Textbooks could be used as a blueprint or a guide for teachers, but not a mandate for instruction. Textbooks could be used as a resource for students, but not the only resource.

- Each textbook/textbook series provides a full programme and organised units of work. To make effective use of textbooks, teachers should exercise professional judgement in:

  - deciding whether to cover all the materials in the textbooks or replace some of the materials with other resources;

  - modifying any part of the textbooks to meet students' learning needs and/or judiciously using other supplementary resources to support students' learning; and

  - re-organising the units and/or the sequence of activities in a unit to optimise students' learning.

Adoption of e-Textbooks

In addition to the provision of interactive activities and electronic learning tools which facilitate students' self-learning, e-textbooks may enable teachers to flexibly adapt, reuse, remix and re-organise the subject contents to suit the learning needs of students.

Schools are advised to assess the following conditions before adopting e-textbooks:

✧ support from key stakeholders including parents;

✧ IT infrastructure of the school;

✧ readiness of teachers; and

✧ suitability of the operating system or mode of the e-textbooks in regard to the school environment and convenience for use by students.

10.3.2 Resources from School Libraries

A. The Functions of a School Library

A well-resourced school library can support students and teachers in gaining access to adequate physical and electronic resources to meet curriculum, information and recreational needs. A school library in the digital age performs the following functions for both students and teachers:

- a resource centre to gain easy access to ample information in a variety of formats;

- a safe environment to surf the Internet and navigate information for constructing and co-constructing knowledge;

- a place to explore innovations and creative problem solving as well as to accommodate all kinds of reading and cultural activities; and

- a platform to support collaborative learning and sharing of ideas in the process of providing scaffolding or engaging students in enquiry learning.

B. The Role of a Teacher-librarian

- Apart from being a library–in-charge, a teacher-librarian also serves as a reading coordinator, an information specialist, a teaching partner and a curriculum resources facilitator in the school.

- A teacher-librarian:

    - selects and maintains a rich collection of physical and digital resources, creates opportunities for book sharing and reading promotion activities, and collaborates with different KLA/subject teachers to facilitate the implementation of different curricula;

- organises and conducts a variety of activities independently or in collaboration with KLA/subject teachers to facilitate the promotion of reading to learn and reading across the curriculum; and

- co-ordinates and conducts library periods with language teachers to enhance students' abilities to conduct independent reading, and arranges a flexible library schedule for subject teachers to take students to the library for subject-based activities and project learning. (*Please refer to Section 6B.5.1.3 of Booklet 6B for more information.*)

- In the digital age, a teacher-librarian plays a pivotal role in supporting student learning. He/she has to take a proactive role in the promotion of information literacy (i.e. the ability and attitude that would lead to an effective and ethical use of information) through arranging meaningful library activities/lessons to help students organise, retrieve and circulate information and resources, or working in collaboration with teachers to help students develop essential skills such as discerning sources of information and using appropriate strategies to find, analyse, synthesise and evaluate information. (*Please refer to Booklet 6D for more information on the importance of information literacy to student learning.*)

C. Measures to Facilitate the Delivery of Effective Library Services

- A school library can be a school's "knowledge hub" which helps to facilitate the effective implementation of the school curriculum at the subject level or with a cross-curricular approach. To maximise the roles of a teacher-librarian, each school has to:

  - allocate adequate resources for ordering quality physical and digital resources, purchasing appropriate equipment, and enhancing the existing IT facilities;

  - encourage subject teachers to collaborate with the teacher-librarian in implementing curriculum plans;

  - recommend the teacher-librarian to attend relevant professional development programmes including those related to the application of new learning and teaching technologies, and the promotion of new initiatives (such as STEM education and information literacy); and

  - provide sufficient capacity and space for the teacher-librarian to fully carry out his/her roles and responsibilities, including planning and co-ordinating activities to promote reading across the curriculum and to collaborate with subject teachers to ensure the effective integration of information resources and technologies into student learning.

Example 2: Collaborating with Different Subject Departments in Promoting Reading Across the Curriculum and Information Literacy

Promotion of Information Literacy

♦ A library programme is designed for S1-S3 students to equip them with basic information literacy skills such as data retrieval, data analysis and ethical use of Internet resources to become effective users of information and enhance their learning capabilities.

♦ The skills are taught in contexts closely connected to the curriculum subject content so that students can apply the skills learnt purposefully. Students also develop relevant reading strategies in the process of data retrieval.

Collaboration with the English Department

♦ The teacher-librarian works closely with the English teachers who are very supportive of the library programme.
♦ A special reading buddy programme is implemented in S1 in collaboration with the S1 English teachers. Some S1 students are selected to pair up with the S4 reading buddies. In a series of meetings, the S4 mentors assist their S1 mentees to master the reading strategies learnt at the library sessions.
♦ A library-initiated programme "Reading Circles" is implemented to involve all S1 and S4 students as part of the school English programme. Students are assigned different tasks to prepare and present in the weekly meetings. Some tasks involve students in answering questions which require further investigation or research on related topics and provide opportunities for students to apply their information skills and reading strategies. Students' performance is duly recorded as part of the continuous assessment in evaluating their reading skills pertaining to the learning of English.

Collaboration with Other Subject Departments

♦ Programmes such as "Growing through Reading" and "Book Week" are implemented. Students are introduced to a collection of printed and e-books with topics related to the curriculum content of different KLAs or subjects at the junior secondary level. They apply the skills learnt in the library programme to engage in "Reading to Learn" in different subject areas.

Example 3: Connecting the Library Programmes with Other Learning Experiences (OLE) to Enhance the Reading Culture

Background

⬧ Reading to Learn is promoted through the participation of the whole school. The school library organises a wide range of programmes such as "Reading Journey Profile", "Subject-based Self-directed Reading Scheme", large scale book fairs, book talks and lunch time reading club to further enhance the reading culture in the school. Some of these activities are connected to other school programmes.

The Library Programme and OLE

⬧ The "Reading Journey Profile" is a programme for promoting reading to learn among senior secondary students.

⬧ Students are encouraged to participate in a series of reading activities held both inside and outside the school and awards are given when students meet the requirements set.

⬧ Students' participation in these reading activities is recorded in their "Reading Journey Profiles". Activities relevant to their Other Learning Experiences (OLE) will also be recorded in the Student Learning Profile (SLP).

⬧ The programme serves well in encouraging students to participate actively in reading activities as well as enriching their OLE.

Example 4: Offering Virtual Library Services to Promote Self-directed Learning

Background

♦ A school has recently refurbished the school library. In addition to the collection of physical resources, a rich database with a variety of topics has been developed to support learning and teaching.

♦ In collaboration with different suppliers and external parties, the library collection is enriched with updated reference materials as well as e-learning materials for both students and teachers.

♦ Each student or teacher requires only one password to gain access to books, articles, videos available in the library and different types of communication tools through the library system 24 hours a day.

Promoting Self-directed Learning

♦ Students can plan for their learning in a specific area of interest and surf the library's website anytime.

♦ Teachers can make use of the common e-platform to interact with students and provide scaffolding in the construction and co-construction of knowledge.

♦ Teachers can monitor students' learning progress and assess their performance instantly on the e-platform and refer them to the library for more in-depth investigation.

♦ Students plan for their next stage of learning after receiving teachers' feedback.

Reflective Questions

✧ How can you make your library a centre for learning as well as a place for sharing and cultural engagement?

✧ What kinds of support can you provide to help students learn more effectively in the digital age?

✧ How does your school provide you with the opportunity to take a leading role in the promotion of Reading across the Curriculum?

✧ What collaborative efforts have been made between the teacher-librarian and subject teachers in implementing resource-based learning?

10.3.3 Other Resources

• Effective use of adequate resources from the EDB, government departments and non-governmental organisations for learning and teaching not only brings real world issues into the classrooms, but also introduces students to different "resource hubs" in society and widens their horizons.

Figure 10.3   Other Learning and Teaching Resources
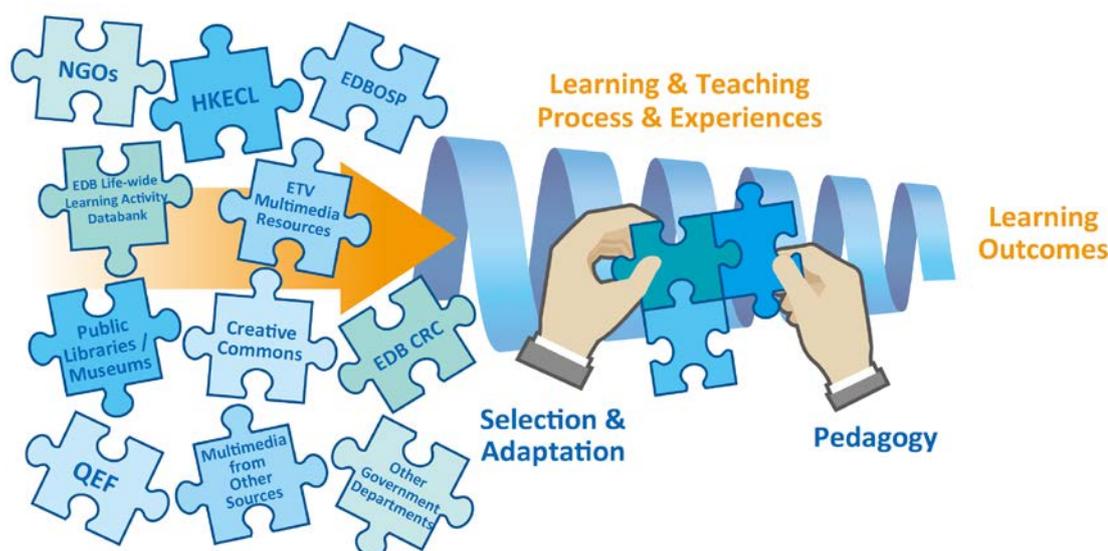
A.   Resources Developed by the EDB

A range of resources are developed by the EDB to support learning and teaching. They include web-based and printed resources of different KLAs and subjects at various key stages of learning as well as Educational Television (ETV) multimedia resources that align with the curricula for specific subjects. Teachers may refer to the website https://erop.edb.gov.hk/en/CRC_Resources/Learning_Teaching_Resource_Lists for lists of resources developed by the EDB for different KLAs and the website https://hkedcity.net/etv/en or https://etv.edb.gov.hk/en for all ETV multimedia resources.

B. EDB One-stop Portal for Learning and Teaching Resources (EDBOSP)

- The EDB One-stop Portal for Learning and Teaching Resources (EDBOSP) (http://www.hkedcity.net/edbosp) aims to help teachers select and develop learning and teaching resources to meet the diverse needs of students.

- Designed in accordance with the curriculum framework, the EDBOSP is an online portal covering learning and teaching e-resources (including ETV multimedia resources) for the eight KLAs across the four key stages (from P1 to S6) and other subjects and areas such as General Studies for primary schools, project learning, life-wide learning and gifted education.

- There are also assessment tasks, curriculum documents, useful examples and good practices as well as information on the professional development for teachers available at the EDBOSP.

C. EDB Life-wide Learning Activity Databank

- The EDB Life-wide Learning Activity Databank (Databank) (http://www.edb.gov.hk/en/curriculum-development/major-level-of-edu/life-wide-learning/databank/index.html) provides teachers with up-to-date information on the learning opportunities offered in the community for organising quality school-based life-wide learning programmes and activities.

- The Databank covers the areas of the Five Essential Learning Experiences – Intellectual Development, Moral and Civic Education, Community Service, Physical and Aesthetic Development, and Career-related Experiences.

- Schools are responsible for selecting suitable programmes or organisations from the Databank to meet their policies in students' whole-person development, as well as the expected learning outcomes of their school-based life-wide learning programmes and activities.

D. EDB Central Resources Centre

- The EDB Central Resources Centre (CRC) (https://erop.edb.gov.hk/en/) provides free educational resources to support learning and teaching, and facilitate the professional development of teachers.

- The CRC houses a comprehensive collection of learning and teaching resources of various KLAs/subjects including those learning packages developed by the EDB, a full collection of curriculum guides and educational policy documents published by the EDB, printed and e-textbooks on the RTL and eRTL respectively, selected deliverables and reports of successful Quality Education Fund (QEF) projects, and various educational periodicals, as well as online electronic educational databases and news clips.

E. Resources from Hong Kong Education City Limited

- The Hong Kong Education City Limited (HKECL) is a government-owned company with a mission to enable better adaption to changing curriculum initiatives through technology. To this end, HKECL has been providing a large depository of learning resources and teaching support materials, both free and fee-charging.

- EdMall supports the sales of electronic products, services and physical products that meet the needs of different stakeholders, while EdBookShelf serves as a comprehensive electronic bookshelf offering diverse learning and teaching resources and interactive contents. The cross-platform and single sign-on features of EdBookShelf maximise convenience for users. Both platforms contain many e-resources free of charge.

- HKECL has been organising a wide variety of programmes and activities for different stakeholders to facilitate the implementation of e-learning and relevant educational initiatives, such as the e-Resources Adoption Programme (eREAP), the STAR Online Student Assessment System, eRead Scheme. Details and updates about the services and resources of HKECL can be found at https://www.hkedcity.net/.

F. Resources Provided by Other Government Departments, Non-governmental Organisations and Education-related Organisations

- Some government departments provide not only a range of useful facilities and publications, but also authentic learning experiences and materials which provide opportunities to enrich students' learning experiences.

- By making use of these resources, schools can provide students with experiential learning opportunities to apply the knowledge and skills learnt in schools in real contexts and authentic settings. For example, through visiting the Wetland Park, students could apply the knowledge and skills learnt in Geography, Mathematics and Biology lessons to understand the environmental phenomena, such as the growth of mangrove, the migration of birds and the way to estimate the number of endangered birds.

- Teachers can also make use of a wide range of resources provided by the non-governmental organisations (NGOs) and education-related organisations to facilitate student learning. These learning resources and activities include pamphlets, study tours, field trips, and open education resources websites. Schools may develop good working partnership with NGOs to provide students access to authentic learning experience that will broaden their horizons and scope of learning.

TIPS

Links to Useful Websites for Resources from the Education Bureau, Education-related Organisations, Other Government Departments and Non-Governmental Organisations

Education Bureau
- EDB One-stop Portal for Learning and Teaching Resources
  http://www.hkedcity.net/edbosp
- ETV websites
  https://etv.edb.gov.hk/en
  https://hkedcity.net/etv/en
- EDB Central Resources Centre
  https://erop.edb.gov.hk/en/
- Hong Kong Teachers' Centre
  http://www.edb.org.hk/hktc/content.aspx?id=20060612164107&lang=e
- Special Education Resource Centre
  http://www.edb.gov.hk/en/edu-system/special/resources/serc/index.html
- Quality Education Fund Cyber Resource Centre
  http://qcrc.qef.org.hk/

Education-related Organisations
- Hong Kong Education City Limited
  http://www.hkedcity.net
- Hong Kong Examinations and Assessment Authority
  http://www.hkeaa.edu.hk/en/

Other Government Departments
- MyGovHK
  http://www.gov.hk/en/residents/
- Hong Kong Public Libraries
  http://www.hkpl.gov.hk/en/index.html
- Hong Kong Public Museums
  http://www.museums.gov.hk/en_US/web/portal/home.html
- Parks, Zoos and Gardens
  https://www.lcsd.gov.hk/en/facilities/facilitieslist/parks.html

Non-Governmental Organisations

✧ Boys and Girls Club Association of Hong Kong
http://www.bgca.org.hk/

✧ Caritas – Hong Kong
http://sws.caritas.org.hk/EN/book.php

✧ Hong Kong Young Women's Christian Association
https://www.ywca.org.hk/

Reflective Questions

✧ How far have you integrated learning and teaching resources from different sources into your teaching?

✧ How can your school enhance the professional competence of teachers so that they can make effective use of learning and teaching resources from different sources to meet the diverse needs of students?

10.4 Developing, Selecting and Sharing School-based Learning and Teaching Resources

• Learning and teaching resources are abundant and available in different forms and from various sources. Flexible and timely use of these resources is the key to enhance learning and teaching effectiveness.

• In consideration of students' age and developmental stages in both cognitive and affective domains, teachers should focus on the development of school-based learning and teaching resources to cater for students' learning styles, diverse needs, abilities and interests. To reduce workload and avoid overlapping of efforts, collaboration among teachers on the development, selection, management and sharing of school-based resources is necessary.

A. Developing School-based Curriculum Resources

- Schools may develop resources for their school-based curricula to address the specific needs and abilities of their students. Both subject-based and cross-curricular approaches can be adopted as illustrated in the following two examples.

Example 5: Developing and Sharing School-based Curriculum Resources for LS

Source: The Panel Chairperson of Liberal Studies (LS) from a secondary school and an awardee of the Chief Executive's Award for Teaching Excellence in the 2013/14 school year

- The school adopts six elective modules for LS. School-based materials are organised as booklets and used for all the six modules.

- While some of the school-based materials are sourced and adapted from EDB seminars, newspapers, publishers or online video clips, more are designed by the LS teachers themselves.

- Teachers teaching the same level share, discuss and make suggestions to improve the school-based materials during the regular collaborative lesson planning meetings. All the teaching materials are stored in the hard drive of the school's networked computers for all teachers' access. Some of the materials are also uploaded to the school's "Liberal Studies Website" for students' reference.

Learning and teaching resources uploaded to the school's LS website

- Not only teachers, but students are also the contributors to the school-based curriculum materials. Students' Independent Enquiry Study (IES) projects and the models or slides used for class presentation are selected and incorporated into the school-based materials for use with their schoolmates at the junior secondary level.

Example 6: Developing School-based Cross-curricular Reading Materials

Source: A secondary school in Shatin developing reading resources integrating inputs from Liberal Studies, English Language and Putonghua

- A series of school-based cross-curricular reading materials is developed to help students interpret and express ideas effectively for discussions in both English and Putonghua.

- After teachers of Liberal Studies have designed or adapted the reading materials from various sources such as newspapers and television news reports, teachers of Putonghua add Pinyin symbols to the reading materials. Teachers of English Language also translate the materials into English and highlight the target vocabulary and language items used.

- English and Putonghua teachers will then audio record the reading materials for students to practise through listening and reading aloud.

Reflective Question

✧ How does your school store, classify and maintain various learning and teaching resources in a systematic way that facilitates teachers' effective use?

B. Selecting and Sharing School-based Learning and Teaching Resources

- Schools are encouraged to select and share their learning and teaching resources to meet the diverse needs of students and curriculum requirements. A sharing culture can be established with the rapid development of communication tools. Teachers can share resources, teaching ideas and experience through various tools or communication systems for teaching communities, whilst students are empowered to collaborate and communicate with teachers and peers through digital means.

- The following are some suggestions to help schools select and share learning and teaching resources effectively:

  - defining school-based criteria for the selection of suitable learning and teaching materials;
  - devising a review mechanism for evaluating and updating resource materials;
  - sharing learning and teaching resources (e.g. ETV multimedia resources) through the intranet or other means within the school with appropriate measures to protect intellectual property rights;
  - organising professional development groups within the school to promote a learning and sharing culture among teachers;
  - encouraging teachers and students to adopt and share learning and teaching materials, exchange views and experiences through the open educational websites and communication platforms, e.g. Creative Commons (CC); and
  - organising workshops for teachers to share experiences in developing and selecting learning and teaching resources for specific subjects.

Appropriate Use of Electronic Resources and Internet Resources

There is a wide variety of electronic resources that can facilitate learning and teaching inside and outside the classroom. The most extensive source for electronic resources is the Internet resources. Teachers should exercise prudence in the appropriate use of these resources, especially in those aspects related to infringement of intellectual property rights.

♦ Teachers should not infringe any copyright in developing their teaching materials when using and integrating learning and teaching resources from various sources.

♦ As a general rule, it is important to study the specific licence terms when using electronic resources such as e-journals or e-books. Many websites for electronic resources include a link to details on the licence terms of use.

♦ Some websites allow authorised users to incorporate articles or chapters into course packs for educational use with appropriate acknowledgement of sources. Access of these adopted materials should be granted to students or other teachers through a secure intranet such as the school intranet; or from reliable websites, such as the EDB website, and appropriate acknowledgement of sources should be made.

♦ Teachers may refer to the EDB website (http://www.edb.gov.hk/ip) for issues related to copyright in education and licencing schemes in using and developing learning and teaching materials.

**Careful Development and Selection of
Supplementary Resources**

When developing or selecting supplementary resources such as grammar exercises and public examination practice papers, schools should take into consideration the educational needs, the abilities of their students as well as the affordability of parents. Mechanical drills/exercises for examination practice are not always necessary for students or effective for learning. The quality of commercially published supplementary resources is not guaranteed. Abundant use of such exercises often diminishes students' learning interest.

Teachers are encouraged to develop supplementary resources for their students to help them practise new knowledge and skills acquired during the lessons. Otherwise, careful selection of supplementary resources which are commercially published may be considered. In general, quality supplementary resources should:

♦   align with the objectives and direction of development of the curriculum, complement and extend what students have learnt in class;

♦   meet the learning needs of students in consideration of their age and diverse learning abilities;

♦   be interesting enough to arouse students' motivation in learning and engage them in active learning;

♦   provide learning activities with various levels of difficulty and diverse learning experiences; and

♦   inspire students to think rather than putting emphasis on mechanical drills or meaningless recitation.

Example 7: Good Practice in the Adoption and Sharing of Creative Commons Licensed Works in a Secondary School

- Creative Commons (CC) (http://hk.creativecommons.org) is an international system of intellectual property rights management through which creators can deliberately change the copyright terms of their intellectual properties from "all rights reserved" to "some rights reserved."

- To nurture creations under the legal sharing and free culture, a secondary school has been encouraging students and teachers to use, adapt and share learning and teaching materials which are registered under CC, in various subjects, including Liberal Studies, Visual Arts and Computer Literacy since 2009.

- By promoting the spirit of CC, not only can teachers use the materials with CC licences for teaching purposes, but they can also educate students to respect creations by quoting their sources appropriately as well as to mark their creative works so that it can be shared legally by others.

- Through the sharing of creative works through CC, students are enabled to learn from each other and reflect upon their work to pursue self-improvement and perfection.

- Website of copyright in education: http://www.edb.gov.hk/ip

Reflective Questions

- ✧ How does your school promote a culture of sharing learning and teaching resources among teachers?

- ✧ How can students of the same class be encouraged to build up a collection of learning resources for sharing?

- ✧ What more could be done to promote the spirit of CC among students and help them appreciate the creative works of other students?

Bibliography

Publications

American Association of School Librarians. (2009). *Empowering learners: Guidelines for school library media programs*. Chicago, IL: American Library Association.

American Association of School Librarians. (2009). *Standards for the 21st century learner in action*. Chicago, IL: American Library Association.

American Association of School Librarians, Association for Educational Communications and Technology. (1998). *Information power: Building partnerships for learning*. Chicago, IL: American Library Association.

Australian Library and Information Association. (2004, December). *Standards of professional excellence for teacher librarians.* Retrieved from http://www.asla.org.au/Policy/standards.aspx

Australian School Library Association. (2013, April). *Future learning and school libraries*. Retrieved from http://www.asla.org.au/site/DefaultSite/filesystem/documents/2013-ASLA-futures-paper.pdf

Bonk, C. J. (2009). *The world is open: How web technology is revolutionizing education*. San Francisco, CA: Jossey-Bass.

Chu, S., Warning, P., & Wu, W. (2011). *Fostering the culture of reading and enhancing information literacy: Exemplars of school libraries.* Hong Kong: Education Bureau. Retrieved from http://www.edb.gov.hk/en/curriculum-development/resource-support/sch-lib-services/teaching-resources/fostering-the-culture-of-reading-and-enhancing-info-literacy/index.html

Collins, A., & Halverson, R. (2009). *Rethinking education in the age of technology: The digital revolution and schooling in America. New York,* NY: Teachers College Press.

Curriculum Development Council. (2002). *Basic education curriculum guide - Building on strengths (Primary 1 to Secondary 3)*. Hong Kong: Author.

Curriculum Development Council. (2009). *Senior secondary curriculum guide - The future is now: From vision to realisation (Secondary 4-6)*. Hong Kong: Author.

Curriculum Development Council. (2014). *Basic education curriculum guide - To sustain, deepen and focus on learning to learn (Primary 1 – 6)*. Hong Kong: Author.

Education Bureau of the HKSAR Government. (2017). *Performance indicators and school self-evaluation tools*. Retrieved from http://edb.gov.hk/en/sch-admin/sch-quality-assurance/performance-indicators/index.html

Education Bureau of the HKSAR Government. (2014). C*onsultation document on the Fourth Strategy on Information Technology in Education - Realising IT potential, Unleashing learning power, A holistic approach*. Hong Kong: Author.

Education Bureau of the HKSAR Government. (2016). *Guiding principles for quality textbooks (Revised June 2016).* Retrieved from http://www.edb.gov.hk/en/curriculum-development/resource-support/textbook-info/GuidingPrinciples/index.html

Education Commission. (2006). *Progress report on the Education Reform (4): Learning for life, learning through life*. Hong Kong: Author.

Fletcher, G., Schaffhauser, D., & Levin, D. (2012). *Out of print: Reimagining the K-12 textbook in a digital age*. Washington, DC: State Educational Technology Directors Association (SETDA). Retrieved from http://files.eric.ed.gov/fulltext/ED536747.pdf

HKSAR Government. (2007). Hong Kong Legislation Chapter 528 Copyright Ordinance. Section 41A: *Fair dealing for purposes of giving or receiving instruction*. Hong Kong: Author.

Hong Kong Science Museum. (2014). *Legions of the giant dinosaurs exhibition*. Retrieved October 14, 2014, from http://hk.science.museum/ms/lgd/eindex.html

Hung J. L. (2012). Trends of e-learning research from 2000 to 2008: Use of text mining and bibliometrics. *British Journal of Educational Technology*, *43*(1), 5-16.

IFLA. (1999). *IFLA/UNESCO school library manifesto 1999.* Retrieved from http://www.ifla.org/publications/iflaunesco-school-library-manifesto-1999

IFLA School Libraries Section Standing Committee. (2015, June). *IFLA School library guidelines* (2nd rev. ed.). Retrieved from https://www.ifla.org/files/assets/school-libraries-resource-centers/publications/ifla-school-library-guidelines.pdf

Intellectual Property Department. (2007). *Hong Kong's amended copyright law: A guide for teachers and students*. Hong Kong: Author.

Karen-Kolb, L. (2013-14). How to select the best websites and apps to meet your students' need. *Learning and Leading with Technology,* (2013-14, Dec/Jan), 36-37. Retrieved from http://www.learningandleading-digital.com/learning_leading/dec_jan_2013-14?pg=38&pm=2&fs=1#pg38

Law, N., Pelgrum, W. J., & Plomp, T. (Eds.). (2008). *Pedagogy and ICT use: In schools around the world findings from the IEA sites 2006 study*. Hong Kong: Comparative Education Research Centre.

Lent, R. C. (2012). *Overcoming textbook fatigue: 21st century tools to revitalise teaching and learning.* Alexandria, VA: Association for Supervision and Curriculum Development.

Littlejohn, A. (Ed.) (2003). *Reusing online resources – A sustainable approach to e-learning.* London: Kogan Page.

Lowe, C. A. (2000). *The role of the school library media specialist in the 21st century.* ERIC Digest. Retrieved from http://www.ericdigests.org/2001-3/21st.htm

Ministry of Education, British Columbia. *Cross-curricular resources.* Retrieved from https://www.bced.gov.bc.ca/irp_resources/

The National Library of New Zealand. (n.d.). *Purpose of the school library.* Retrieved from
https://natlib.govt.nz/schools/school-libraries/understanding-school-libraries/purpose-of-the-school-library

Palloff, R. M., & Pratt, K. (2005). *Collaborating online: Learning together in community*. San Francisco, CA: Jossey-Bass.

Richardson, W. (2010). *Blogs, wikis, podcasts, and other powerful web tools for classroom.* Thousand Oaks, CA: Corwin.

Schrum, L., & Levin, B. B. (2009). *Leading 21st Century schools: Harnessing technology for engagement and achievement.* Thousand Oaks, CA: Corwin.

Siegle, D. (2012). Embracing e-books: Increasing students' motivation to read and write. *Gifted Child Today*, *35*(2), 137-143.

Stripling, B. K. (1999). *Learning and libraries in an information age: Principles and practice*. Englewood, CO: Libraries Unlimited and its Division Teacher Ideas Press.

Sykes, J. A. (2002). *Action research: A practical guide for transforming your school library*. Englewood, CO: Libraries Unlimited.

Tilke, A. (Ed.) (1998). *Library Association guidelines for secondary school libraries.* London, UK: Library Association Publishing.

Ulmane-Ozolina, L. (2011). Technology use for collaboration in blended learning. *Problems of Education in the 21st Century, 33, 83-91.*

UNESCO. (2008). *Information for all programme (IFAP). Towards information literacy indicators.* Retrieved from
http://unesdoc.unesco.org/images/0015/001587/158723e.pdf

Wang, S. (2014). Collaboration factors and quality of learning experience on interactive mobile assisted social e-learning. *The Turkish Online Journal of Educational Technology, 13*(2), 24-34.

王景明（主編）(2002)。**中小學圖書館建設與管理**。北京：北京師範大學出版社。

課程發展處 (2002)。**學會學習：學校圖書館服務支援學與教**。香港：作者。

Websites

Education Bureau: EDB One-stop Portal for Learning and Teaching Resources
http://www.hkedcity.net/edbosp

Education Bureau: School Library Services
http://www.edb.gov.hk/en/curriculum-development/resource-support/sch-lib-services/index.html