

Liberal Studies

Curriculum and Assessment Guide

(Secondary 4 - 6)

Jointly prepared by the Curriculum Development Council and
The Hong Kong Examinations and Assessment Authority

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HKSARG
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Membership of the CDC-HKEAA Committee on Liberal Studies		

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Preamble

The Education and Manpower Bureau (EMB, now renamed Education Bureau (EDB)) stated in its report¹ in 2005 that the implementation of a three-year senior secondary academic structure would commence at Secondary 4 in September 2009. The senior secondary academic structure is supported by a flexible, coherent and diversified senior secondary curriculum aimed at catering for students' varied interests, needs and abilities. This Curriculum and Assessment (C&A) Guide is one of the series of documents prepared for the senior secondary curriculum. It is based on the goals of senior secondary education and on other official documents related to the curriculum and assessment reform since 2000, including the *Basic Education Curriculum Guide (2002)* and the *Senior Secondary Curriculum Guide (2007)*. To gain a full understanding of the connection between education at the senior secondary level and the basic education level, and how effective learning, teaching and assessment can be achieved, it is strongly recommended that reference should be made to all related documents.

This C&A Guide is designed to provide the rationale and aims of the subject curriculum, followed by chapters on the curriculum framework, curriculum planning, pedagogy, assessment and use of learning and teaching resources. One key concept underlying the senior secondary curriculum is that curriculum, pedagogy and assessment should be well aligned. While learning and teaching strategies form an integral part of the curriculum and are conducive to promoting learning to learn and whole person development, assessment should also be recognised not only as a means to gauge performance but also to improve learning. To understand the interplay between these three key components, all chapters in the C&A Guide should be read in a holistic manner.

The C&A Guide is jointly prepared by the Curriculum Development Council (CDC) and the Hong Kong Examinations and Assessment Authority (HKEAA). The CDC is an advisory body that gives recommendations to the HKSAR Government on all matters relating to curriculum development for the school system from kindergarten to senior secondary level. Its membership includes heads of schools, practising teachers, parents, employers, academics from tertiary institutions, professionals from related fields/bodies, representatives from the HKEAA and the Vocational Training Council (VTC), as well as officers from the EDB. The HKEAA is an independent statutory body responsible for the conduct of public assessment, including the assessment for the Hong Kong Diploma of Secondary Education (HKDSE). Its

¹ The report is *The New Academic Structure for Senior Secondary Education and Higher Education – Action Plan for Investing in the Future of Hong Kong*, and will be referred to as the *334 Report* hereafter.

governing council includes members drawn from the school sector, tertiary institutions and government bodies, as well as professionals and members of the business community.

The C&A Guide is recommended by the EDB for use in secondary schools. The subject curriculum forms the basis of the assessment designed and administered by the HKEAA. In this connection, the HKEAA will issue a handbook to provide information on the rules and regulations of the HKDSE examination as well as the structure and format of public assessment for each subject.

The CDC and HKEAA will keep the subject curriculum under constant review and evaluation in the light of classroom experiences, students' performance in the public assessment, and the changing needs of students and society. All comments and suggestions on this C&A Guide may be sent to:

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Acronym

ApL	Applied Learning
ASL	Advanced Supplementary Level
C&A	Curriculum and Assessment
CDC	Curriculum Development Council
CMI	Chinese-medium Instruction
EDB	Education Bureau
EMB	Education and Manpower Bureau
EMI	English-medium Instruction
HKALE	Hong Kong Advanced Level Examination
FAO	Food and Agriculture Organization
HKCEE	Hong Kong Certificate of Education Examination
HKDSE	Hong Kong Diploma of Secondary Education
HKEAA	Hong Kong Examinations and Assessment Authority
HKedCity	Hong Kong Education City
HKSAR	Hong Kong Special Administrative Region
ICT	Information and Communication Technology
IH	Integrated Humanities
IES	Independent Enquiry Study
IT	Information Technology
KLA	Key Learning Area
KM	Knowledge Management
KS1/2/3/4	Key Stage 1/2/3/4
MOI	Medium of Instruction
NGO	Non-governmental Organisation
OLE	Other Learning Experiences

PDA	Personal Digital Assistant
PDP	Professional Development Programmes
S1/2/3/4/5/6/7	Secondary 1/2/3/4/5/6/7
S&T	Science and Technology
SBA	School-based Assessment
SES	Socio-economic Status
SLP	Student Learning Profile
SRR	Standards-referenced Reporting
VTC	Vocational Training Council
WHO	World Health Organization
WTO	World Trade Organization

Chapter 1 Introduction

This chapter provides the background, rationale and aims of Liberal Studies as a core subject in the three-year senior secondary curriculum, and highlights how it articulates with the junior secondary curriculum, post-secondary education, and future career pathways.

1.1 Background

The *334 Report* (EMB, 2005) stipulated that Liberal Studies will be a core subject and assessed like other subjects in the three-year senior secondary curriculum. During the early stage of consultation, the place and design of Liberal Studies in the three-year senior secondary curriculum aroused great public interest. The process of developing the curriculum and assessment framework presented in this document has involved ongoing consultation with the various stakeholders, including education professionals and the general public. Their views have been taken into account and there is now consensus on the rationale and curriculum aims, and strong support for its being a core subject in the three-year senior secondary curriculum designed to address the bias towards single discipline subjects in the rest of the curriculum.

Liberal Studies aims to broaden students' knowledge base and enhance their social awareness through the study of a wide range of issues. The modules selected for the curriculum focus on themes of significance to students, society and the world, designed to enable students to make connections across different fields of knowledge and to broaden their horizons. The learning experiences provided will foster students' capacity for life-long learning, so that they can face the challenges of the future with confidence.

Since the 1970s, Hong Kong has been developing experience in the use of the issue-enquiry approach in curriculum development – an approach which is central to the design of Senior Secondary Liberal Studies. Besides the experience gained through Liberal Studies (Advanced Supplementary Level or ASL), which was implemented in 1992, schools have acquired many good practices in cross-curricular linkage in civic education and thinking skills programmes. The introduction of Integrated Humanities (IH) (S4-5) and Science and Technology (S&T) (S4-5)¹ into the Hong Kong school curriculum in 2003 further enriched

¹ The Education Commission recommended in 2000 the provision of 'a broad senior secondary curriculum to enable students to acquire experiences in various key learning areas, construct a broad knowledge base and enhance their ability to analyse problems.' In response to this recommendation, IH (S4-5) was introduced to provide students, particularly those in the science and technology-oriented streams, with learning experience in the Personal, Social and Humanities Education (PSHE) Key Learning Area (KLA); and S&T (S4-5) was introduced to provide learning experience in the Science Education and Technology Education KLAs to students in the arts stream.

the pool of resources and pedagogical knowledge relevant to the implementation of Liberal Studies in the three-year senior secondary curriculum.

The design of the curriculum and assessment framework for this subject is in line with contemporary views of knowledge and of how people learn. It has taken into account overseas experiences in cross-disciplinary studies, pertaining in particular to critical thinking, life education, values education and civic education, with due consideration given to their relevance in the Hong Kong context. The academic rigour of the subject has also been benchmarked against a number of comparable subjects in overseas secondary education curricula.

Senior Secondary Liberal Studies is a response to the community's expressed needs for a cross-curricular learning opportunity for all senior secondary students. It complements other senior secondary subjects in providing for academic excellence, broadening perspectives, and connecting learning more closely to real-life experience. The subject is rooted in the curriculum contexts of Hong Kong and aims to achieve the learning goals which have been identified for senior secondary education.

The subject takes up no less than 10% of the total lesson time in the overall three-year senior secondary curriculum. Schools have the flexibility to align the learning and teaching of Liberal Studies with other curricular planning in, for example, languages and moral and civic education.

1.2 Rationale

Liberal Studies provides opportunities for students to explore issues relevant to the human condition in a wide range of contexts. Liberal Studies enables students to understand the contemporary world and its pluralistic nature. It enables students to make connections among different disciplines, examine issues from a variety of perspectives, and construct personal knowledge of immediate relevance to themselves in today's world. It will help students develop independent learning capabilities and cross-curricular thinking. Liberal Studies contributes directly to the attainment of the goals of the senior secondary curriculum (*Reforming the Academic Structure for Senior Secondary Education and Higher Education - Actions for Investing in the Future*, EMB, 2004, p.8). In particular, it will help each student to:

- acquire a broad knowledge base, and be able to understand contemporary issues that may affect their daily life at personal, community, national and global levels;
- be an informed and responsible citizen with a sense of global and national identity;
- respect pluralism of cultures and views, and be a critical, reflective and independent thinker; and
- acquire information technology (IT) and other skills necessary to life-long learning.

Together with the other core subjects and elective subjects, it helps to achieve a balance between breadth and depth in the school curriculum.

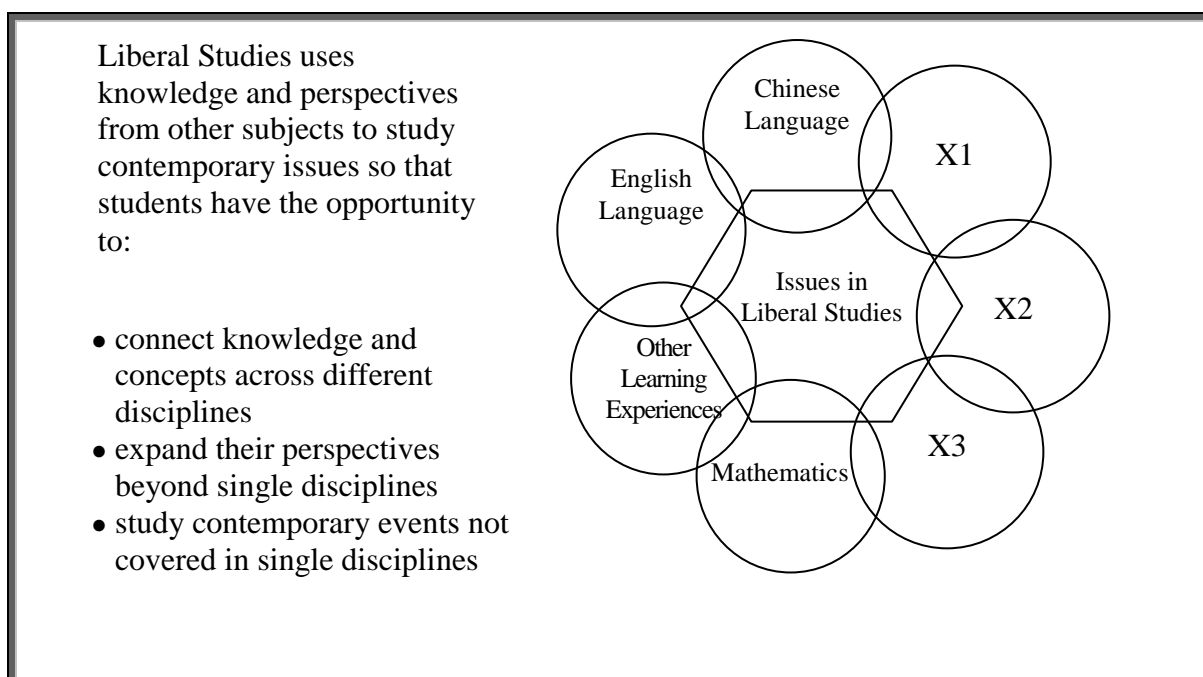


Figure 1.1 Liberal Studies and the Three-year Senior Secondary Curriculum

Liberal Studies is built on the foundation of the eight key learning areas (KLAs) in basic education and extends this into new areas of knowledge. Teachers should encourage their students to apply the knowledge and perspectives they have acquired from different subjects, to make connections across different disciplines of knowledge.

In cultivating independent thinking, positive values and attitudes, social awareness and adaptability to change, Liberal Studies provides a useful foundation for further studies, future employment and a life of fulfilment.

1.3 Nature of the Subject

Liberal Studies adopts a student-oriented approach. It aims to help students understand themselves, and their relations with others and the environment in which they live. The intention is not to turn students into specialists in any well-defined academic field, but to enable them to become informed, rational and responsible citizens of the local, national and global community.

The nature of Senior Secondary Liberal Studies is different from that of General Education or Liberal Education in universities. It is a curriculum organisation that suits the curriculum contexts of Hong Kong and achieves the learning goals identified for senior secondary education. It is not necessarily tied to any one particular ideology such as “humanism” or “classicism”. Also, it subscribes to the common view that all students can construct and expand knowledge through a variety of learning and teaching activities suitable for the age group engaged in senior secondary education.

As the coverage of Liberal Studies includes contemporary issues, media resources are important sources of information apart from teachers’ handouts and other learning and teaching materials. Students will learn to critically evaluate information, phenomena and ideas presented in the media, so that they can distinguish between fact and opinion and sense objectivity versus bias. Through discussion of issues in these resources, students will learn to base their conclusions on sound evidence and relevant sources of information, rather than on ignorance and prejudice.

An issue-enquiry approach is adopted for learning and teaching Liberal Studies. This encourages students to develop a capacity for independent learning in the pursuit of knowledge and openness to new possibilities. By studying the issues related to the themes chosen for the curriculum, students will learn to see the connection among different themes and disciplines, and appreciate the complexities and organisation of knowledge. Teachers are advised to take a developmental approach and employ various learning and teaching strategies to help students acquire a relatively comprehensive understanding of the issues, master related facts, analyse the core of the questions, give balanced considerations to different views and make reasoned judgments. The experience of ASL Liberal Studies indicates that roughly 50% - 60% of the enquiry process will be needed for acquiring content knowledge if students are to have a sufficient understanding of the background and nature of the issues explored.

The development of positive values and attitudes is an important goal of Liberal Studies. The core values emphasised in moral and civic education (i.e. perseverance, respect for others, responsibility, national identity and commitment) throughout all key stages (KSs) are reinforced in Liberal Studies; and respect for the views of others and multiple perspectives are also developed so that students can make reasonable value judgments.

1.4 Curriculum Aims

The aims of Senior Secondary Liberal Studies are:

- (a) to enhance students' understanding of themselves, their society, their nation, the human world and the physical environment;
- (b) to enable students to develop multiple perspectives on perennial and contemporary issues in different contexts (e.g. cultural, social, economic, political and technological contexts);
- (c) to help students become independent thinkers so that they can construct knowledge appropriate to changing personal and social circumstances;
- (d) to develop in students a range of skills for life-long learning, including critical thinking skills, creativity, problem-solving skills, communication skills and information technology skills;
- (e) to help students appreciate and respect diversity in cultures and views in a pluralistic society and handle conflicting values; and
- (f) to help students develop positive values and attitude towards life, so that they can become informed and responsible citizens of society, the country and the world.

1.5 Broad Learning Outcomes

By the end of the course, students should be able to:

- (a) develop the capacity to construct knowledge through enquiring into contemporary issues which affect themselves, their society, their nation, the human world and the physical environment, so that they
 - i. understand the personal development process and interpersonal relationships of adolescents with respect to the different challenges and opportunities they face;
 - ii. evaluate different aspects of life in Hong Kong with respect to the rights and responsibilities of individuals, social groups and the government;

- iii. assess the impact of reform and opening-up on the development of modern China and Chinese culture;
 - iv. recognise that globalization has many dimensions and that people are affected in different ways and have different responses towards it;
 - v. realise how people understand issues on public health and make decisions based on related scientific knowledge and evidence;
 - vi. analyse how science and technology interact with the environment in relation to energy resources and sustainable development;
- (b) understand the interconnectedness of personal, local, national and global issues, and the interdependence of the physical environment and society, and appraise issues of human concern accordingly;
 - (c) reflect on the development of their own multiple identities, value systems and worldviews with respect to personal experiences, social and cultural contexts and the impact of developments in science, technology and globalization;
 - (d) identify the values underlying different views and judgments on personal and social issues, and apply critical thinking skills, creativity and different perspectives in making decisions and judgments on issues and problems at both personal and social levels;
 - (e) present arguments clearly and demonstrate respect for evidence, open-mindedness and tolerance towards the views and values held by other people;
 - (f) develop skills related to enquiry learning, including self-management skills, problem-solving skills, communication skills, information processing skills and skills in using information and communication technology (ICT);
 - (g) carry out self-directed learning which includes the processes of setting goals, making and implementing plans, solving problems, analysing data, drawing conclusions, reporting findings and conducting evaluations; and
 - (h) demonstrate an appreciation for the values of their own and other cultures, and for universal values, and be committed to becoming responsible and conscientious citizens.

1.6 Interface with Basic Education and Post-secondary Pathways

Liberal Studies builds on what students have learnt in basic education. Through exploring themes important to the modern world, it helps students to extend their breadth of knowledge, depth of understanding, independent thinking skills and ability to make connections.

Each module in the Liberal Studies curriculum will indicate the relevant prior learning experiences expected of students. The “explanatory notes” in each module list the range of knowledge students may need in exploring the themes and issues. These notes also make suggestions as to how to suggest feasible perspectives for and directions of approach to the themes and issues to achieve the learning objectives.

The implementation of project learning as one of the four key strategies in the curriculum reform of basic education to help students to achieve the goal of “learning to learn”, has enabled them to develop many skills for conducting enquiries. Hong Kong students will have been exposed to cross-disciplinary enquiry learning during their study of General Studies at the primary level. The open and flexible curriculum framework adopted by the Hong Kong school curriculum in basic education has also made cross-disciplinary studies a part of students’ learning experience, thus equipping them with generic skills and helping them to connect knowledge from different fields. Such developments have laid down a sound foundation for Senior Secondary Liberal Studies.

The study of Liberal Studies enables students to explore different pathways for further studies and future careers. Liberal Studies will help to foster intellectual ability in general, and develop multiple perspectives that will be of benefit to students in further studies at the tertiary level. The civic literacy, social awareness and ability to make informed decisions that students will have developed will also prepare them for effective learning and wise decision making in the ever-changing work environment.

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Chapter 2 Curriculum Framework

The curriculum framework for Liberal Studies embodies the key knowledge, skills, values and attitudes that students are to develop at senior secondary level. It forms the basis on which schools and teachers plan their school-based curriculum and design appropriate learning, teaching and assessment activities.

2.1 Design Principles

The design of the Liberal Studies curriculum is based on the following principles that are derived from those recommended in Chapter 3 of the *334 Report* (EMB, 2005):

- (a) The Liberal Studies curriculum is built on the knowledge, skills, values and attitudes, and learning experiences expected of students in basic education. Students' learning in the eight KLAs and their exposure to the five Essential Learning Experiences before they enter senior secondary education provide them with the necessary knowledge base and capacity for their learning in Liberal Studies.
- (b) The curriculum aims at integrating, applying, consolidating and broadening the foundational knowledge of every student through studying a range of contemporary issues in different contexts. The curriculum design enables students to go beyond facts and phenomena and engage in in-depth enquiry and reflection.
- (c) The curriculum includes theoretical as well as applied learning. It exposes students to perspectives and concepts essential to the understanding of issues of human concern, while at the same time emphasising students' ability to transfer and apply these perspectives and concepts to the understanding of new issues.
- (d) The curriculum framework allows for great flexibility in the choice of enquiry paths, the specific issues to be discussed and the use of curriculum resources to cater for student diversity and ensure relevance of the learning experience in the subject. The Independent Enquiry Study (IES) will also allow students to study topics which suit their interests and aspirations.
- (e) The curriculum helps to develop independent and life-long learning skills in students, through adopting an issue-enquiry approach and providing self-directed learning experience.
- (f) The curriculum allows flexible organisation and progression to cater for the different characteristics of schools and needs of students.

- (g) The knowledge, skills, values and attitudes developed in Liberal Studies help to prepare students for further education, training in different pathways and the workplace.
- (h) In the three-year senior secondary curriculum, this LS curriculum provides a nexus of connections between other core subjects, elective subjects, Applied Learning (ApL), and other learning experiences (OLE).

2.2 The Overall Structure

The curriculum comprises three Areas of Study, namely “Self and Personal Development”, “Society and Culture” and “Science, Technology and the Environment”, all of which represent broad areas of concern about the human condition and the contemporary world. They serve as platforms for the exploration of related issues, so that students can develop a more coherent understanding of the world and come to appreciate the connections among concepts.

The Area of Study on “Self and Personal Development” focuses on issues that have relevance to students at the personal level. It aims at helping students to develop an understanding of themselves and a positive outlook on life. “Society and Culture” deals with the human condition in social and cultural contexts, with students exploring the social and cultural development of the local community, the nation and the world. Finally, “Science, Technology and the Environment” examines the development of society in relation to the physical world and advances in technology. It cultivates an awareness of how science, technology and human activities affect the environment.

Figure 2.1 shows the curriculum framework for Liberal Studies.

Areas of Study	Independent Enquiry Study (IES)
Self & Personal Development <ul style="list-style-type: none"> • Module 1: Personal Development & Interpersonal Relationships 	Students are required to conduct an IES making use of the knowledge and perspectives gained from the three Areas of Study and extending them to new issues or contexts. To help students develop their IES titles, the following themes are suggested: <ul style="list-style-type: none"> • Media • Education • Religion • Sports • Art • Information and Communication Technology (ICT)
Society & Culture <ul style="list-style-type: none"> • Module 2: Hong Kong Today • Module 3: Modern China • Module 4: Globalization 	
Science, Technology & the Environment <ul style="list-style-type: none"> • Module 5: Public Health • Module 6: Energy Technology & the Environment 	

Figure 2.1 Curriculum Framework for Liberal Studies

2.3 Linkages among the Areas of Study

As mentioned before, the three Areas of Study are not independent fields of knowledge or self-contained disciplines. They have inter-connections among them as shown in Figure 2.2. Students are encouraged to apply the understandings and perspectives developed in one area to the study of the others whenever appropriate.

Self & Personal Development ← → Society & Culture
<p>Personal development involves a process of socialisation. An individual's self-understanding and identity cannot be developed in isolation from the social, cultural and historical context. The profile of a society reflects the way of life of its members from different sectors; and its future is determined by the members' preferences on different issues. As interpersonal and inter-regional interactions become more frequent and networking more common, the choices made by individuals are making greater impact on communities, local and foreign, even on the global society.</p>
Self & Personal Development ← → Science, Technology & the Environment
<p>Knowledge in science and technology helps individuals to understand many problems that they encounter, so that they can make informed decisions and appreciate their responsibilities to society, to the world and to the environment. On the one hand, the development of science and technology facilitates human exploration of the material world, and improves our lives. On the other, it affects our way of life, our mode of communication and even our ways of thinking. To make better use of science and technology in our lives has become a critical modern concern.</p>
Society & Culture ← → Science, Technology & the Environment
<p>The development of science and technology has helped to hasten social development, reduced the distance between regions, and brought a new impulse to cultural encounters and growth. For today's society, sustainable development requires a simultaneous consideration of factors related to science, technology and the environment. Given that social problems have become increasingly complex, the progress of science and technology needs to catch up with the speed of change in society – but any new technology will also bring new challenges and problems to society and the environment.</p>

Figure 2.2 Linkages among the Three Areas of Study

The IES further integrates knowledge acquired from the three Areas of Study, and enhances the ability to synthesise knowledge in general through enquiry into issues of interest to individual students. It encourages students to appreciate the complexities of the modern world, develop critical thinking skills and make informed decisions. The subject does not aim to provide a given set of knowledge, and teachers are not encouraged to use an indoctrinating approach to promote a particular set of beliefs.

In summary, the curriculum framework for Liberal Studies is designed to ensure that senior secondary students experience a broad and holistic education. The three Areas of Study will broaden students' knowledge base, enhance their social awareness and help to develop a deeper multi-faceted understanding of self, society and the nation, and the natural and human world. Enquiry into contemporary issues within each area and the IES will help students to make meaningful connections across different disciplines, develop an understanding of a range of viewpoints, and construct their own knowledge. The learning experience provided in Liberal Studies will help students to become informed, responsible citizens and independent thinkers.

2.4 Basic Design of Modules

Each module is organised around a central concept relevant to the Area of Study, with key themes relevant to students' lives identified. These themes embody issues which are important to the students and society, and are appropriate for the stage of development of senior secondary students. These issues are perennial in the sense that they involve different values (e.g. economic development and environmental conservation; individual choice and collective interest).

The “questions for enquiry” suggested under each theme show possible pathways for exploring into these contemporary and perennial issues. These guiding questions also indicate the expected breadth and depth of the enquiry. Teachers may enliven these broad perennial issues by making reference to specific current issues. For example, in discussing the issue on drugs patenting, teachers can help students to examine the perennial value conflicts underlying the issue, such as the tension between the pursuit of economic interests and legal considerations.

The “explanatory notes” help teachers and students understand the related content and suggest possible perspectives and directions for exploring some of the issues. Depending on students' interests and ability, teachers may lead them to conduct enquiry through flexible use of the explanatory notes. More information for teachers and students will also be available in the Web-based Resource Platform for Liberal Studies (<http://ls.edb.hkedcity.net>).

During the initial implementation of Liberal Studies, these explanatory notes should be of help to teachers in understanding the scope of the curriculum, and will be updated to reflect new developments in society.

The themes and key enquiry questions for the six modules are as follows:

Area of Study: Self and Personal Development

Module 1: Personal Development and Interpersonal Relationships

Themes	Key Questions for Enquiry
1. Understanding oneself	What challenges and opportunities does a person have during adolescence?
2. Interpersonal relationships	What interpersonal factors facilitate adolescents to reflect upon and prepare for the transition to adulthood?

Area of Study: Society and Culture

Module 2: Hong Kong Today

Themes	Key Questions for Enquiry
1. Quality of life	Which directions might be chosen in maintaining and improving Hong Kong residents' quality of life?
2. Rule of law and socio-political participation	How do Hong Kong residents participate in political and social affairs and come to grips with rights and responsibilities with respect to the rule of law?
3. Identity	How are the identities of Hong Kong residents developed?

Module 3: Modern China

Themes	Key Questions for Enquiry
1. China's reform and opening-up	What impact has reform and opening-up had on the overall development of the country and on people's life?
2. Chinese culture and modern life	With respect to the evolution of concepts of the family, what kind of relationship between traditional culture and modern life has been manifested?
	To what extent are traditional customs compatible with modern Chinese society?

Module 4: Globalization

Themes	Key Questions for Enquiry
1. Impact of globalization and related responses	Why do people from different parts of the world react differently to the opportunities and challenges brought by globalization?

Area of Study: Science, Technology and the Environment

Module 5: Public Health

Themes	Key Questions for Enquiry
1. Understanding of public health	How is people's understanding of disease and public health affected by different factors?
2. Science, technology and public health	To what extent does science and technology enhance the development of public health?

Module 6: Energy Technology and the Environment

Themes	Key Questions for Enquiry
1. The influences of energy technology	How do energy technology and environmental problems relate to each other?
2. The environment and sustainable development	Why has sustainable development become an important contemporary issue? What is the relationship between its occurrence and the development of science and technology?

The following is a detailed elaboration of the curriculum.

2.5 Area of Study: Self and Personal Development

Area Brief

Within an individual's lifespan there are a number of developmental challenges that have to be undertaken, e.g. the development of identity and the taking on of an increasing number of roles throughout adolescence and into adulthood. Society also presents young people with many situational challenges and opportunities that may affect their self-perceptions and their relationships with others.

As they develop, students have to be aware of various physiological, emotional and social factors which are relevant to their personal growth. They need to recognise the significance of self-esteem and self-management skills, so that they can handle their fears in the personal development process. Students also have to learn to communicate effectively and develop social skills in different contexts, e.g. in the family and in school. Community involvement may provide opportunities for adolescents to handle adversity. All these experiences enable students to develop a positive outlook on life and empathy, and become prepared for the challenges of living in a rapidly changing society.

Area Objectives

Learning experiences in this Area of Study will enable students to:

- (a) understand the factors which influence personal development, interpersonal relationships, values and beliefs;
- (b) develop self-understanding through an objective assessment of adolescent development;
- (c) be aware of the importance of life skills in handling challenges and opportunities during adolescence, and the complexities involved in their acquisition;
- (d) appreciate the identity, roles and changes in different relationships;
- (e) review their relationships in the family, peer groups and other social groups; and
- (f) appreciate the importance of community involvement.

2.5.1 Module 1: Personal Development and Interpersonal Relationships

Prologue

As adolescents develop and move into adulthood, they experience a number of physiological, social and psychological changes which may affect their self-esteem. At the same time, the ever-changing society presents them with many challenges and opportunities which are crucial to their personal growth. At this age, adolescents show a need to search for viable identities and roles, to become independent of their families and to broaden their circle of peers and foster their relationship with the community. Tensions and conflicts may well arise between adolescents and adults especially within the family. The onset of adolescence involves them in learning through experimentation in various situations and reflecting on their values. This may facilitate adolescents to achieve better personal development and enhance interpersonal relationships in preparation for the transition to adulthood.

In basic education, students have already acquired a basic understanding of personal growth and interpersonal relationships. This module focuses on significant issues which are open to conflicting views and values concerning personal development. Exploration of these issues enables students to achieve a deeper self-understanding and an awareness of the importance of self-management skills. Through exploring issues concerning interpersonal relationships in the context of the family, peers and society, students reflect on how they communicate and on the importance of establishing healthy relationships.

Relevant learning experiences in basic education

In basic education, students should have already taken part in the following learning experiences with respect to Module 1: Personal Development and Interpersonal Relationships:

(A) Theme 1: Understanding oneself

Factors influencing personal development include: physiological, emotional and social changes at puberty and ways to cope with them; the uniqueness of individuals; similarities and differences between the two sexes; personal identity and self-esteem; self-image and self-awareness; personal strengths and weaknesses; a healthy lifestyle; self-management in daily life situations; money management; coping with stress and frustration; coping with emotional experiences; dealing with unfamiliar situations; decision making in challenging situations, etc.

(B) Theme 2: Interpersonal relationships

Factors influencing attitudes towards sexuality, interpersonal relationships, values and beliefs; identity and social approval; roles, rights and responsibilities in the family and other social groups; peer groups and their influence; gender roles and relationships; relationships with the opposite sex; conformity and independence; simple conflict-resolution skills in daily life situations; enhancing interpersonal relationships and social skills; respect for others who hold different values and lifestyles; communicating and getting along with others in the community; the importance of participation in local affairs, etc.

Framework of the Module

Theme 1: Understanding oneself

Questions for enquiry	Related values and attitudes
<p>What challenges and opportunities does a person have during adolescence?</p> <ul style="list-style-type: none">• What factors influence the self-esteem of adolescents? How is it related to adolescents' behaviour and aspirations for the future?• Why are adolescents often given certain rights and responsibilities?• What are the current salient trends that pose particular challenges and opportunities to adolescents in Hong Kong and how do they respond to these trends?• How do messages and values from the media influence adolescents?• Why are different life skills important for adolescents to make full use of present opportunities and prepare themselves for challenges such as adversities and major changes? Why is the acquisition of life skills easy for some but difficult for others?	adaptability to change, responsibility, self-esteem, self-reflection, rationality, self-discipline, independence

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- Relationship among self-esteem, adolescents' behaviour and aspirations for the future
 - an understanding of developmental challenges such as physiological changes, emotional upheavals and social needs during adolescence and ways to cope with them
 - factors which may affect self-esteem such as gender differences, physical appearance, family support, peer acceptance, socio-economic status (SES), cultural influences, etc
 - comparison of self-esteem, behaviour and aspirations among adolescents with different socio-economic backgrounds, academic achievements, or parents of different child-rearing styles
 - acceptance of one's own limitations and developing one's potential
 - importance of objective and accurate self-perception
- Rights and responsibilities of adolescents
 - adolescents' rights and responsibilities that are not shared by other age-groups in different contexts, e.g. universal education is only available to people below a

- certain age, adolescents are not punished in the same manner as other groups when they commit a crime
- unique expectations (e.g. adolescents' need to formulate their own set of values) and pressures on adolescents (e.g. conformity in dress and appearance, language and dating behaviour)
 - discussion on why some people in Hong Kong want to give adolescents more rights and responsibilities, whereas others are less inclined to do so
- Current trends related to Hong Kong adolescents
 - understanding of certain trends such as consumer behaviour, substance abuse, extensive extra-curricular activities, online activities, community involvement, etc., and analysis of the causes and patterns of these trends
 - analysing the particularity of these trends which pose challenges and opportunities to adolescents in Hong Kong
 - strategies commonly adopted by Hong Kong adolescents to cope with these trends
 - Acquisition of various life skills to make use of opportunities and meet challenges
 - discussion on how the acquisition or lack of various life skills, e.g. goal-setting, conflict resolution, developing relationships affect adolescents' development
 - importance of different life skills to the adolescent development, e.g.
 - time and finance management — achieving independence, rationality and self-discipline
 - coping with adversity — developing positive attitudes towards life
 - barriers to the acquisition of life skills, e.g. unrealistic expectations of adolescents; channels and significant others that can help adolescents to acquire life skills
 - self-reflection on the acquisition of life skills, e.g. identifying one's inadequacies, and learning various life skills through observation and application in daily situations

Theme 2: Interpersonal relationships

Questions for enquiry	Related values and attitudes
<p>What interpersonal factors facilitate adolescents to reflect upon and prepare for the transition to adulthood?</p> <ul style="list-style-type: none"> ● What kinds of relationships are commonly available to and most significant for Hong Kong adolescents? What are the unique and shared characteristics of these relationships? ● How are adolescents' identities developed and roles embedded within different relationships? ● Why are there often changes in adolescents' relationships with family members, teachers, peers and dating partners? ● How do adolescents in Hong Kong reflect upon their interpersonal conflicts and develop relationships with others? How do interpersonal communication methods in modern society influence adolescents' relationships with others? ● What motivates Hong Kong adolescents to participate in community affairs? 	<p>Cooperation, gender equity, empathy, integrity, self-reflection, self-determination, respect for self, respect for others, social harmony, sense of responsibility, interdependence</p>

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- Relationships available to Hong Kong adolescents
 - different types of relationships for the typical Hong Kong adolescents, both formal (e.g. school clubs) and informal (e.g. peers)
 - the unique and shared characteristics of these relationships, e.g. gender-stereotyped beliefs and behaviour, and peer group pressure
- Identity developed and roles embedded within different relationships
 - factors affecting adolescents' identity development within different relationships, e.g. gender stereotypes, peer influence, parenting styles, and ethnicity
 - adolescents' role expectations and behaviours within different relationships
- Changes in adolescents' relationships with family members, teachers, peers and dating partners such as
 - the quest for autonomy during adolescence, pressure towards conformity and the need for social acceptance

- differences in the values and life philosophies between Hong Kong adolescents and their parents and strategies to narrow the gap
 - closer peer interactions, less intense sibling rivalries and closer contacts between teachers and students
 - the influence of the media through advertising, pop stars and the lifestyles portrayed in movies and TV soap operas, etc
 - the influence of communication technology on adolescents' communication methods and interpersonal relationships
 - analysing changing patterns of dating behaviour (e.g. displaying intimacy in public) and whether current trends are desirable and would affect the sustainability of an intimate relationship
- Reflection on interpersonal conflicts
 - possible causes and consequences of manifest interpersonal conflicts, (e.g. parent-child conflict and sibling rivalry)
 - strategies typically used by adolescents to deal with conflicts and the extent to which these strategies are effective
 - reflection on various examples of conflicts and ways to minimise harm
 - adopting positive attitudes towards conflicts and striking a balance between the need to avoid and resolve conflicts and the need to preserve personal integrity and beliefs
- Developing relationships with others
 - developing skills for starting and maintaining a relationship, e.g. being aware of one's own needs, privileges and responsibilities and those of others; and strategies for adolescents to survive in groups
 - self-defence mechanisms against unpleasant situations such as ostracism
 - possible trade-offs between social harmony and individual freedom
 - the importance of developing a sense of belonging, self-respect and respect for others in different relationships
- Hong Kong adolescents' participation in community affairs
 - factors affecting adolescents' community involvement, e.g. a sense of belonging, identity formation, a sense of responsibility, altruism, self-actualisation
 - analysing the ways in which Hong Kong adolescents attempt to relate to one another in community affairs, e.g. volunteer work in community centres, consideration for others when using public facilities

2.6 Area of Study: Society and Culture

Area Brief

Culture is a shared creation of members of a community with a shared lifestyle. It manifests itself in every part and every level of society. While society is made up of individuals, different environments give rise to diverse cultures in societies. Social progress and cultural development go hand-in-hand.

Post-reunification Hong Kong continues to develop as a cosmopolitan city based on the original foundation of economic development and an established way of life, while exploring its new role as a special administrative region of China. At the same time, through reform and opening-up, China's development has created unprecedented opportunities and challenges in the new millennium. Having joined the World Trade Organization (WTO), China can no longer cut itself off from the trends and influences of globalization. The surging Chinese economy and traditional Chinese culture are now interacting with the rest of the world in various ways. In living through such times of dynamic change, Hong Kong students need to develop both the capacity to reflect on their own culture and adopt a broad worldview that transcends spatial boundaries.

This Area of Study includes the following modules: Hong Kong Today, Modern China and Globalization. Because each of these modules has a different focus, their enquiry paths have different progression and depth. The entities with which Hong Kong students are personally involved form the focus of Hong Kong Today and Modern China. In contrast, globalization is a controversial concept which manifests itself in several different ways, so students need to explore the different meanings of the concept and be exposed to the controversies which surround it. They can investigate its impact on different regions and the diverse reactions from people living in different parts of the world.

Area Objectives

Learning experiences in this Area of Study will enable students to:

- (a) understand important issues facing their own society, country and the world;
- (b) assess qualities, phenomena, changes, trends and impacts in relation to various aspects of society and culture;
- (c) apply critical thinking skills and adopt multiple perspectives in making decisions and judgments regarding social issues and problems;

- (d) identify the interdependence among societies, countries and the world, and their mutual influences upon one another;
- (e) appreciate the views and values of people from different social and cultural backgrounds; and
- (f) reflect on and develop their multiple identities, responsibilities and commitments as citizens in their community, country and the world.

2.6.1 Module 2: Hong Kong Today

Prologue

Hong Kong is a Chinese society with centuries of cultural heritage. Economically, it is already an international financial and commercial centre, and for years it has been a major world metropolis. Before 1997, it underwent the process of modernisation under British rule, and the meeting of East and West has produced a unique culture and ethos. After reunification with the motherland under “one country, two systems”, a new set of opportunities and challenges has affected public life and is shaping the development of Hong Kong.

In basic education, students have already acquired some understanding of these developments. In this module, they will explore further issues of concern, such as: the remarkable quality of life in Hong Kong, rights and responsibilities with respect to the rule of law, socio-political participation, and the identities of Hong Kong residents.

Relevant learning experiences in basic education

In basic education, students should have already taken part in the following learning experiences with respect to Module 2: Hong Kong Today:

(A) Theme 1: Quality of life

The needs and problems of Hong Kong society; the historical and current development of the Hong Kong economy; the functions of the government and the services provided by it; the physical and human characteristics of the environment of Hong Kong (e.g. relief, climate, population); the rights and responsibilities of consumers; current environmental issues in Hong Kong, etc.

(B) Theme 2: Rule of law and socio-political participation

Historical and current development of politics and society in Hong Kong; the relationship between the Central Authorities and the Hong Kong Special Administrative Region (HKSAR); the importance of the Constitution of the People’s Republic of China and the Basic Law of the HKSAR of the People’s Republic of China to Hong Kong residents; the sources of law in the HKSAR; the governance of the HKSAR; the functions of the government of the HKSAR and its relationship with Hong Kong residents; the identities, rights and duties of Hong Kong residents; the participation in social and political affairs of Hong Kong residents, etc.

(C) Theme 3: Identity

Roles and identities of the individual as a member of a group; the identities of individuals as Hong Kong residents and Chinese citizens; awareness and concern for local, national and global communities; the emergence of a global identity in an interdependent world, etc.

Framework of the Module

Theme 1: Quality of life

Questions for enquiry	Related values and attitudes
<p>Which directions might be chosen in maintaining and improving Hong Kong residents' quality of life?</p> <ul style="list-style-type: none">• What are the different opinions of Hong Kong residents on the priorities which constitute the quality of life?• Which aspects of the quality of life are seen to be more important? Which are seen to be immediate needs? Who might make the decisions? Why?• How can individuals or organisations contribute to the maintenance and improvement of the quality of life? What are the obstacles to their efforts? Which groups of people are most affected if these obstacles are not removed?	respect for quality and excellence; sustainability; rationality; sensitivity; care and concern

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- Possible perspectives from which to measure the quality of life according to objective criteria or subjective judgment might include:
 - The economic perspective (e.g. unemployment rate, per capita gross domestic product, real wages, disparity between the rich and poor)
 - The social perspective (e.g. the level of medical and health care, access to education and its level, equal opportunities)
 - The cultural perspective (e.g. diversity, heritage)
 - The political perspective (e.g. human rights and rule of law, freedom of the press, the government's performance)
 - The environmental perspective (e.g. level of pollution, development of environmental protection and conservation)
- People's opinions about the quality of life may vary according to short and long-term costs and benefits to individuals, social groups and government
- Hurdles with respect to maintaining and improving the quality of life, e.g. mobilisation of resources, technological level, social cohesion, perceptions of social justice, regional and international factors
- Valuation of the quality of life may vary according to:
 - different configurations of people / social strata / interest groups
 - majority vs. minority
 - vocal vs. silent
 - active vs. passive
 - abundance vs. scarcity

- judgment of urgency: consideration of personal, group and public interests

Theme 2: Rule of law and socio-political participation

Questions for enquiry	Related values and attitudes
<p>How do Hong Kong residents participate in political and social affairs and come to grips with rights and responsibilities with respect to the rule of law?</p> <ul style="list-style-type: none"> ● What factors determine the level and form of socio-political participation by Hong Kong residents? What is the significance of their participation? Why do they have different demands? What is the impact of their demands? ● In what ways does the rule of law protect rights and promote the observance of responsibilities among Hong Kong residents? ● How does the government respond to the demands of different social groups? What is the impact of the responses on the governance of Hong Kong, the safeguarding of the rule of law and the promotion of socio-political participation among Hong Kong residents? Why? 	<p>respect for the rule of law; participation; human rights and responsibilities; democracy; justice</p>

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- Participation in socio-political affairs
 - factors affecting the level and form of socio-political participation, e.g.
 - expected cost and probable outcome
 - social structure, e.g. social cohesion and sense of belonging, differences based on ethnicity, gender, social strata, and age
 - political, e.g. the power to vote and the right to stand for election at different levels, the credibility of the government, political culture
 - educational, e.g. educational level, curricula
 - the media, e.g. timeliness, coverage and reliability of news and information, the degree of freedom of the press and information, the level of involvement and the stance of the media on different events
 - degree of significance to individuals, social groups, the government and society as a whole
- Rights and responsibilities with respect to the rule of law
 - relationship between the rule of law and observing the law, e.g.
 - is observing the law equivalent to respect for and safeguarding the rule of law?

- how can a clash between an individual code or article of law and the rule of law be settled?
 - who should bear the responsibility for paying respect to and safeguarding the rule of law?
- the significance and the implementation of the rule of law in different dimensions, e.g. equality before the law, judicial independence, fair and open trial and the right to appeal, legal protection of individual rights, legal restrictions on governmental power
- functions and limitations of the rule of law in protecting rights and promoting the observance of responsibilities, e.g. the protection of minority rights; the restraint on arbitrary power; the promotion of social justice; the maintenance of a free, open and stable society; dynamic balance among different interests
- Government and the requests of different interest groups
 - the demands from people, organisations and interest groups with different characteristics, backgrounds, ideals and endowments, e.g. political groups, non-governmental organisations (NGOs), the disadvantaged, professional bodies, industry and business, the middle class, people of different gender, ethnicity and religion
 - evaluating different interests
 - institutionalised and non-institutionalised responses, swiftness of responses, and their validity and effectiveness
 - impact of related responses on governance, e.g. decisions on priorities in resource allocation; the relationship between the government and Hong Kong residents; the legitimacy of government; the effectiveness and efficiency of policy implementation
 - impact of related responses on safeguarding the rule of law and the promotion of socio-political participation among Hong Kong residents, e.g.
 - the level of understanding of, concern about, and support for the rule of law
 - the opportunities, levels and modes of participation, and their related strategies
 - changes in civic awareness and the local sense of belonging

Theme 3: Identity

Questions for enquiry	Related values and attitudes
<p>How are the identities of Hong Kong residents developed?</p> <ul style="list-style-type: none"> ● To what extent do Hong Kong residents regard themselves as local, national and global citizens? How are their identities shaped? In what ways have their different identities affected their daily lives? ● What is the interrelationship of the multiple identities in the local, national and global context? ● How do different social groups, such as new arrivals, indigenous inhabitants in the New Territories and ethnic minorities, develop a sense of identity? ● What is the significance of multiple identities to Hong Kong residents? Why? 	<p>sense of belonging; plurality; open-mindedness; individuality; interdependence</p>

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- Characteristics of Hong Kong residents' identity
 - multiplicity of identities of Hong Kong residents (e.g. influenced by globalization and cultures, residents' mobility)
 - different kinds of Hong Kong residents: permanent and non-permanent residents; permanent residents who are Chinese citizens and permanent residents who are not of Chinese nationality, etc.
 - interrelationships among Hong Kong residents' local sense of belonging and identity, national identity and identity as global citizens (e.g. Hong Kong residents' identity with respect to issues involving local, national and global interests; the responses of Hong Kong residents to local, national and global events that trigger empathy and mutual assistance)
- Factors affecting the sense of belonging and identity may include historical developments; developments in political, economic, social and cultural life; agents of socialisation; traditional culture; popular culture; the input of the government and NGOs; education
- Identity and the sense of belonging may be shown by:
 - feelings and responses towards local (HKSAR flag and emblem) and national symbols (national flag, national emblem and national anthem), national historical events, culture and landscape
 - feelings and responses to major local, national and global events
 - participation in and contribution to local, national and global affairs
 - responses to international competitions (e.g. sport, music, film)

- responses and reflections, as shown in polls and surveys on the issue of identity
 - feelings and responses towards symbols of social groups and major events related to them
 - participation in and contribution to social groups
- Significance of multiple identities of Hong Kong residents may include
 - cultural reflection and innovation
 - diversity and multiple voices in society
 - increasing thresholds of freedom and adaptability

2.6.2 Module 3: Modern China

Prologue

After the People's Republic of China was founded in 1949, large-scale socialist construction began. But during the "Cultural Revolution" from 1966 to 1976, the country suffered serious setbacks. The task of reconstructing the economy and society had to start afresh. By the end of 1978, China launched a reform and opening-up drive with the convening of the Third Plenary Session of the Eleventh Central Committee of the Communist Party of China. Ever since, the country has thereafter set itself on the road of socialism with Chinese characteristics through economic and political restructuring.

The modernisation process has often meant changes in traditional Chinese culture. Certain cultural practices have been lost, and some have continued to be a vital part of the daily life of different ethnic groups. Chinese culture has a long history. It can generally be approached from three dimensions: namely the material (such as architecture and historical sites), the institutional (such as folk customs and rituals) and the spiritual (such as philosophy, ethics and morality). These three interrelated dimensions together give rise to the rich and diversified nature of Chinese culture. However, because all cultures are dynamic, further development in Chinese culture is expected. In this module, students study the material dimension of Chinese culture and are encouraged to look at the impact of reform and opening-up on the conservation of cultural heritage. In addition, they will explore how traditional concepts of the family and customs interact with modern life. This will lead them into the spiritual and institutional dimensions of Chinese culture, and how they have been influenced by changes in society.

During the years of basic education, students have already developed some understanding of China's domestic policies and foreign relations, as well as its cultural developments. In this module, they will explore the present opportunities and challenges and the interrelationship between Chinese culture and modern life.

Relevant learning experiences in basic education

In basic education, students should have already taken part in the following learning experiences with respect to Module 3: Modern China:

(A) Theme 1: China's reform and opening-up

Major historical periods and events of the country in the last 100 years; a brief understanding of the domestic policies and foreign relations of the People's Republic of

China; the importance of the Constitution of the People's Republic of China; important governmental organisations; the characteristics of places and regions, and the reasons for the specific distribution patterns of major natural and human features of the country; economic and environmental issues of the country, etc.

(B) Theme 2: Chinese culture and modern life

The origins of Chinese culture and its major characteristics; similarities and differences in customs and practices of people within the same or from different geographical, cultural, religious and ethnic backgrounds; how cultures have adapted to their changing environments; the preservation and conservation of culture and heritage, etc.

Framework of the Module

Theme 1: China's reform and opening-up

Questions for enquiry	Related values and attitudes
<p>What impact has reform and opening-up had on the overall development of the country and on people's life?</p> <ul style="list-style-type: none">• How have the changes in living standards and the way of life been viewed across the whole country?• To what extent are sustainable development and cultural conservation feasible in such a rapidly developing country? What are the challenges and opportunities?• In what ways has China's participation in international affairs affected the overall development of the country?• How has the Central People's Government dealt with the effects of reform and opening-up?• To what extent have the reform and opening-up affected the overall national strength of the country?	solidarity; patriotism; sustainability; human rights and responsibilities; care and concern; justice

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- Highlights of reform and opening-up, e.g. rural reform, the development of township and village enterprises, the issue of *sannong* (agriculture, rural area and farmer), urbanisation and city reforms, the issue of migrant workers, the reform of state-owned enterprises, the roles of enterprises of the non-public sector, accession to the WTO
- Indicators of living standards and ways of life, and related changes and responses
 - living standards can be measured by economic, educational and health indicators
 - different living standards and ways of life, e.g. uneven development in villages, towns and cities; differences in development between regions such as inland and coastal areas or north-south, east-west; differences among social strata and interest groups
 - the responses of the Central People's Government, e.g. deepening the reform and opening wider to the outside world; policy changes in social security, medical care, education and the household registration system (*hukou*); regional development planning
 - Responses from individuals with different backgrounds and responses from different groups and organisations, e.g. rural-urban migration, farmers' looking for work in cities, bringing up children, changes in consumer behaviour

- A country edging towards sustainable development, e.g.
 - national development: direction and goals
 - formulation and implementation of policies, laws and regulations
 - government intervention and market mechanism
 - contribution and limits of science and technology
 - paradigm shift in groups and the general public, and in their participation

- Relationship between reform and opening-up, and environmental and cultural conservation
 - challenges brought by reform and opening-up to environmental and cultural conservation, e.g. economic considerations vs. other considerations; individual interests vs. collective interests; government policies, laws and regulations and how they are implemented; the quality of citizens
 - opportunities brought about by reform and opening-up for environmental and cultural conservation, e.g. reasons for government, enterprises and NGOs promoting environmental and cultural conservation (e.g. environmental and ecological considerations, cultural heritage, economics, politics, and social development); increase in resources; changes in standards of living and ways of life; education and propaganda

- Impact of participation in international affairs on the country's overall development, e.g.
 - effects on our country's overall development with regard to its role and participation in intergovernmental and non-intergovernmental international organisations and conferences, as well as the ratification and implementation of international treaties, e.g. the accession to WTO, the ratification and implementation of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (1997), the International Covenant on Economic, Social and Cultural Rights
 - effects on our country's overall development with regard to the bilateral and multilateral ties with major countries and regions
 - our country's overall development with regard to its roles and influence in regional affairs

- Dimensions of governance and the impact of reform and opening-up, e.g. decisions on priorities in resource allocation; the functions of government and administrative efficiency; the formulation and implementation of policies, rules and regulations; internal supervision; information management and transparency; responding to the needs of citizens, social groups and organisations; the legitimacy of government; the relationship between the government and the people, and between the Central People's Government and local people's governments

- Examples of the Central People's Government's responses to reform and opening-up
 - social policies that serve different targets, e.g. social security, medical care, education
 - building of the legal system
 - institutionalisation of more democratic practices
 - legislation and policies with respect to international standards

- Measurement of overall national strength may include:
 - indicators in the economy, military strength, science and technology, resources, governance, diplomacy and social development level
 - quantifiable and non-quantifiable criteria
 - changes in different dimensions of national strength under reform and opening-up

Theme 2: Chinese culture and modern life

Questions for enquiry	Related values and attitudes
<p>With respect to the evolution of concepts of the family, what kind of relationship between traditional culture and modern life has been manifested?</p> <ul style="list-style-type: none"> • How have the traditional concepts of the family been challenged in modern life? • To what extent have the traditional concepts of the family been maintained in modern Chinese life? Why? <p>To what extent are traditional customs compatible with modern Chinese society?</p> <ul style="list-style-type: none"> • Why do some traditional customs sustain and flourish in modern Chinese society while others do not? • To what extent are these traditional customs of significance to modern Chinese society? 	<p>culture and civilisation heritage; respect for different ways of life, beliefs and opinions; plurality; sensitivity; appreciation</p>

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- Characteristics and functions of the traditional concepts of the family
 - characteristics of traditional familialism, e.g. an emphasis on father-son relationships; paying attention to the dignity and prestige of lineage and clan; formation of lineage and clan; the advocacy of ancestor worship; family ownership of property
 - functions of traditional families, e.g. economic function, continuity of lineage and clan, socialisation, security, inheritance of status, welfare, leisure, religious function
- Challenges to the traditional concepts of the family from modern life, e.g. individualism vs. collectivism; egalitarianism vs. authoritarianism; materialism vs. spiritualism; function of socialisation gradually being replaced by non-familial agents; consumption and leisure rather than production and allocation
- Changes in traditional family patterns in modern life, e.g. alienation among family members; loose ties; sharing of leisure rather than of production; emotional support rather than inherited status; communication / division of labour rather than authority status; decline in the function of socialisation; single lifestyles, late marriages and a low birth rate; an increase in mobility; immense regional differences; the weakening of marriage concepts, morals and ethics

- Continuity of the traditional concepts of the family in modern life, e.g. the spirit of mutual care among family members; emotional support; raising children to provide for old age; a differential mode of association in ethical relations; interdependence in intergenerational relationships; inheritance of property / status; educational functions; male domination: gender roles, living with a husband's family
- Factors which influence the preservation and development of traditional customs, e.g. commercial and market values; adaptability; socialisation and moral values; identity; emotional factors; cultural values; psychological factors; government's cultural policies; the demands of communal / cultural groups
- Possible clashes and conflicts between traditional customs and modern life, e.g. superstition vs. science; formalism vs. pragmatism; conservatism vs. new trends; spiritual vs. materialist; collective vs. individual; class / status vs. equality
- Different views on the roles of traditional customs in modern society, e.g. accumulation of cultural capital; cultural integration and "creative adaptation"; social memories and cultural cohesion; socialisation; materials for native education and communal history; identity; conservation of cultural heritage as well as plurality and diversity of cultures; the development of the culture industry; the balancing and neutralising function for localisation / local culture against the challenges of globalization

2.6.3 Module 4: Globalization

Prologue

“Globalization” has become a buzzword, but it remains controversial as a concept and developmental trend. Some people even strongly argue for “anti-globalization”. There is without doubt an increase in cross-border activity, real and virtual. Physical distance no longer restricts the interflow and mutual influences of people. Students’ daily lives are linked with globalization: they are constantly exposed to international events through live electronic transmission; they consume goods and services of global brands; and they habitually surf the electronic world. As the mainland is engaging in reform and opening-up, and Hong Kong is an international financial and logistics centre, the opportunities and challenges of globalization are obvious. However, across the world, people’s experience of globalization varies from one country to another and within countries.

Students have gained some background information about global development in their basic education. In this module, they will review the trends in the controversial concept of globalization. They will explore and analyse its impact and the responses of peoples and groups. They also consider Hong Kong and mainland responses to globalization.

Relevant learning experiences in basic education

In basic education, students should have already taken part in the following learning experiences with respect to Module 4: Globalization:

Theme: Impact of globalization and related responses

How science and technology are changing people’s interactions and relationships throughout the world; the importance of exchanging goods and services; the ways that people are linked; the influence of the physical environment and social conditions on cultural developments in different parts of the world; the ways that people of different cultures interact in the global system and how such interaction has developed over time; international events; East-West encounters; international conflicts and threats to peace; international cooperation and efforts towards peace; scientific and technological development; industrial relocation; population distribution and its problems; resources and development; development and interdependence; the causes and consequences of wars, etc.

Framework of the Module

Theme: Impact of globalization and related responses

Questions for enquiry	Related values and attitudes
<p>Why do people from different parts of the world react differently to the opportunities and challenges brought by globalization?</p> <ul style="list-style-type: none">• Is globalization a blessing or a curse to human beings?• What are the characteristics and trends in the development of globalization?• Does globalization provide benefits to all countries or lead to exploitation of developing countries by developed countries and international capital?• Does globalization promote homogeneity or diversity in culture and values? Does it bring mutual rejection or integration and evolution?• Does the spread of globalization promote international understanding or cause greater conflict among ethnic groups, religions, cultures and political entities?• Is the impact of globalization similar or different between countries and within countries?• How do people from different parts of the world react to globalization? Why?• How should the mainland and Hong Kong meet the opportunities and challenges of globalization? Why?	interdependence; justice; cooperation; culture and civilization heritage; plurality; adapting to changes; open-mindedness; empathy; participation; mutuality

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- Different perceptions of globalization, e.g. as an opportunity, as a threat, as a non-issue
- Discourses on globalization, e.g. shrinking space, shrinking time and disappearing borders; the speedy flow of capital, people, goods, images, and ideas across the world; extensive interactions between distant cultures and societies; the criss-crossing of interconnecting networks across the world; the emergence of formal and informal institutional arrangements for the operation of globalized networks
- Manifestation of the trends in globalization
 - economic features, e.g. the extent of the global economy determined by world market forces and international competition; levels of interdependence and

- integration among economies; the extent of deregulation of trade, investment and capital movements; the degree of flexibility in labour processes, labour markets, products, and patterns of consumption
 - cultural features, e.g. whether a “global culture” exists; changes in the ties between culture and place; the blending of culture products in different locations; tensions between cultural homogeneity and cultural heterogeneity
 - political features, e.g. global issues such as cross-border crime and pollution which are beyond the control of national governments; the interplay between governments, intergovernmental bodies, NGOs and trans-national enterprises and organisations; the extent of making and implementing global or trans-national rules; whether there is a level playing field across the world
- Impact of globalization
 - economic aspects, e.g. wealth creation and (re)distribution; access to foreign capital, markets, technology and products; employment and unemployment; interdependence and integration among economies
 - homogeneity or heterogeneity in culture and values, e.g. the extent of the dissemination and domination of certain cultures over others in terms of music, dress, eating habits, languages, ideas, and cultural values; the possibility of interpretation and customisation by the non-Western world according to local conditions; the extent of cultural flows within the non-Western world and from the non-Western world to the Western world; vanishing cultures vs. new cultural forms
 - greater understanding or more conflicts, e.g. the changing roles of the state in a globalizing world; globalization as a cause or contributory factor in major global schisms; institutionalisation of intergovernmental and trans-national networks of political interaction and their effectiveness; the growth of new centres of authority and a global civil society
 - factors which influence the spread and evenness of the impact of globalization within and across borders
 - availability and accessibility of ICT
 - mobility / restrictions on the mobility of capital and people
 - degree of openness of different cultures and values
 - differing views within and across borders, e.g. differences in sex, age, religion, and ethnicity; people with capital, entrepreneurial ability, education and skills; people with / without access to information and the related technology; internationally mobile people; the poor and the illiterate; unskilled workers; indigenous peoples
- Different reactions, e.g. think globally, act locally; think locally, act globally; think globally, act globally; think locally, act locally; anti-globalization; self-sufficiency
- Mainland and Hong Kong societies facing the opportunities and challenges of globalization
 - perceptions of the current situation
 - perceptions of the future
 - feasible and desirable directions / strategies

2.7 Area of Study: Science, Technology and the Environment

Area Brief

We have a genuine need to understand nature and the environment around us. We continually have to find solutions to practical problems now and in the future. Our life has been greatly improved by advances in science and technology, which are gradually being regarded as a proper way to solve problems, but such advances have also raised critical issues, many of which have adverse effects on our lives, particularly in the area of health and the environment.

Two relevant modules have been chosen for enquiry. Module 5 is Public Health. In this module, students examine the spread of diseases and health problems in the population, and their determining factors. The module also discusses the major health problems that have had the greatest impact on our community and their causes; and the place of science and technology in dealing with related problems. The roles of the individual and society in maintaining good public health and handling possible public health crises are also explored.

Module 6 is Energy Technology and the Environment. It seeks to analyse how we use energy, and discuss how this has a significant impact on our lives and environment, and how the development of energy technology relates to sustainable development. The module aims to develop a comprehensive understanding of the implications of the use of energy on society and the environment and an awareness of how science and technology affects our lives.

Area Objectives

Learning experiences in this Area of Study will enable students to

- (a) understand the impact of science and technology on public health and the environment, and the implications of this;
- (b) apply knowledge of science, technology and the environment to issues which affect modern society;
- (c) develop the ability to think scientifically, critically, and creatively, and independently so that they can construct knowledge and solve problems;
- (d) develop the ability to understand and communicate ideas and views in the fields of science, technology and the environment;

- (e) be aware of the social, cultural and moral issues related to science, technology and the environment; and be able to make judgments and informed decisions on them; and
- (f) respect nature and all living things, and make a commitment to protect society and the environment as a responsible citizen.

2.7.1 Module 5: Public Health

Prologue

Public health is an ongoing concern. The outbreak of new infectious diseases poses a real threat to us. Public health issues are not only matters of health and lifestyle, but also touch on how public resources are allocated. Our understanding of public health and disease has been enhanced in many ways by advances in science and technology, and has also been influenced by various cultural factors. Advancement in biotechnology and medicine has improved diagnosis, disease prevention and control, but it has also raised economic, moral and legal concerns about, for example, the patenting and economic efficiency of new drugs, moral considerations about genetic screening, and the regulation of research in embryonic stem cell technology.

This module seeks to develop students' ability to evaluate public health issues from different perspectives, taking into account scientific, historical, moral, social and cultural factors. Students consider the impact of biotechnological and medical advances on disease control and prevention, and the moral, social and cultural issues arising from them. It also aims to promote the ability to make informed decisions.

Relevant learning experiences in basic education

In basic education, students should have already taken part in the following learning experiences with respect to Module 5: Public Health:

(A) Theme 1: Understanding of public health

Major human body parts and systems, and their main functions; main factors affecting health and how to keep healthy; a healthy lifestyle including personal hygiene, a balanced diet, exercise and rest; the causes and effects of substance abuse; common diseases in Hong Kong, causes and prevention; positive and / or negative consequences of personal conduct; the importance of community health etc.

(B) Theme 2: Science, technology and public health

Structure and function of cells; process of human reproduction; use of our sense organs to perceive environmental stimuli; the use of scientific concepts to explain phenomena, and importance of experimental evidence; the use of technology in different cultures; the limitations of science and the evolutionary nature of scientific knowledge; local issues related to AIDS and cancer education; the influence of technology on daily life; limited resources in meeting the needs of the whole community; culture as a factor in the use of

science and technology; the work of some world organisations, etc.

Framework of the Module

Theme 1: Understanding of public health

Questions for enquiry	Related values and attitudes
<p>How is people’s understanding of disease and public health affected by different factors?</p> <ul style="list-style-type: none"> ● How did people understand the causes of diseases in the past? Was their understanding scientific? ● How is people’s understanding of health affected by economic, social and other factors? ● How is people’s understanding of public health affected by the development of science and technology? ● In what ways is people’s understanding of public health affected by health information, social expectations, personal values and beliefs in different cultures? 	<p>valuing the suggestions of others; respect for evidence; respect for different ways of life, beliefs and opinions; cultural heritage</p>

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- The influences of outbreaks of epidemic diseases (such as the Black Death, Severe Acute Respiratory Syndrome (SARS), Acquired Immunodeficiency Syndrome (AIDS)) on the understanding of disease and public health, and public responses, e.g.
 - public alertness about hygiene
 - public awareness of international collaboration in preventing infectious diseases
 - allocation of resources in the prevention and control of diseases
- The influence of the evolution of scientific knowledge on the understanding of disease and public health, e.g.
 - perceptions of causes and prevention of diseases in different cultures
 - the germ theory as an explanation of the cause of infectious diseases
 - knowledge of immune system to increase awareness of the importance of body defence against diseases
 - the contemporary view on infectious diseases – the interaction between host, organism and the environment
 - knowledge of mental health, causes of chronic diseases or lifestyle diseases, to increase awareness of the importance of a healthy lifestyle
- The influences of modern technology on people’s understanding of disease and public health, e.g.
 - the invention of instruments for diagnosis and treatments of diseases
 - the development of related scientific knowledge and theories

- differences and similarities between Western and Chinese medical theories in explaining the causes of diseases and acquiring knowledge of medicine
- problems and dangers associated with the development of modern technology

- Changes in the way health is conceptualised, e.g.
 - the influence of science and technology
 - the influence of religions
 - health concepts in different cultures
 - the World Health Organization's (WHO) understanding of health

- Factors that influence our views and informed decision on health and public health issues, e.g.
 - social and personal background
 - system (such as the government's role, community health services, health care financing) and cultures
 - availability and accessibility of public health information
 - risks and benefits
 - the role of scientific evidence

Theme 2: Science, technology and public health

Questions for enquiry	Related values and attitudes
<p>To what extent does science and technology enhance the development of public health?</p> <ul style="list-style-type: none"> • Can science and technology provide new solutions in the prevention and control of diseases? • In the area of public health, how is the development of science and technology affected by various factors, and what issues are triggered by this development? How can the fruits of scientific and technological research be respected and protected? • What challenges do different sectors of society, the government and international organisations have in maintaining and promoting public health? 	<p>betterment of humankind; human rights and responsibilities; cooperation; moral considerations</p>

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- The application of science and technology in medical research and development (such as research and development on new vaccines and antibiotics), e.g.
 - tests of effectiveness by scientific methods
 - objective, valid and reliable methods of measurement
 - accurate and efficient measuring instruments
- Incentives for the development of medical technology, such as financial benefit, political reasons, the quality of life and social development
- Issues arising from development in science and technology, e.g.
 - patenting of drugs
 - regulations on the development of biotechnology and moral considerations
 - transfer of medical technology and knowledge
- Individual's rights and responsibilities, such as good habits in public places and healthy lifestyles, and the demands and influences of different stakeholders on public health services
- Relationship between public health and social development, e.g.
 - resources availability and resources allocation for public health services
 - cultural, institutional and economic influences on lifestyle
 - influence of education on public health

- International and across boundaries collaborations, e.g.
 - the functions and roles of international organisations (e.g. the WHO, the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health)
 - information-sharing across boundaries
 - international collaboration in research on infectious diseases

2.7.2 Module 6: Energy Technology and the Environment

Prologue

Energy technology enhances the efficiency of energy utilisation, and this inevitably invites us to use more energy. Our dependency on energy affects scientific and technological development. Such interaction also has an impact on social development: the use of energy affects the environment and the changes in our environment alter our views on the use of energy. Therefore, the use of energy, social development, and scientific and technological development are mutually interdependent. They pose a challenge to the balance of the ecosystem and our living environment. Sustainability has become a crucial goal in dealing with environmental development.

In this module, students will be asked to evaluate issues concerning energy technology and the environment from a variety of perspectives, informed by scientific, technological, environmental, historical, social and cultural data. They will develop an awareness of the complex interrelationships and interdependencies involved. It is hoped that recognition of the impact of science and technology on our lives will lead to empathy for living things, a love of the environment, an understanding of the need for sustainable development for our society, country and the world, and the nurturing of responsible global citizenship.

Relevant learning experiences in basic education

In basic education, students should have already taken part in the following learning experiences with respect to Module 6: Energy Technology and the Environment:

(A) Theme 1: The influences of energy technology

Forms of energy, energy changes, generation of electricity and energy sources; the composition of air, balance of carbon dioxide and oxygen in nature; air pollution, acid rain, global warming, the greenhouse effect; the pros and cons of nuclear power; the impact of science and technology in different cultures; the invention of explosives, etc.

(B) Theme 2: The environment and sustainable development

The role of individuals in environmental protection; the impact of smoking and polluted air on our respiratory system; water supply, water treatment, water conservation and pollution; environmental problems associated with the disposal of used metals and plastics; the interdependence of living things and their environment; concepts of planning and managing resources; choice and cost in the use of scarce resources; the use of scientific knowledge to

explain and interpret familiar phenomena; development in and interdependence between less developed and more developed countries, etc.

Framework of the Module

Theme 1: The influences of energy technology

Questions for enquiry	Related values and attitudes
<p>How do energy technology and environmental problems relate to each other?</p> <ul style="list-style-type: none">• How does the development of energy technology affect the exploitation and use of energy?• To what extent does the development of energy technology create or solve environmental problems?• What are the implications of environmental change on the development of energy technology?• How do energy problems affect international relationships, and the development of countries and societies?	Betterment of humankind; respect for evidence; interdependence

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- The driving forces on the use of energy, both past and present, such as survival, agriculture, industries and transportation
- Uses and influences of renewable and non-renewable energy, e.g.
 - uses and development of the two types of energy and their advantages, limitations and influence on the environment
 - reasons for switching to renewable energy and the feasibility issues
- The impact of energy technology on exploration and use of energy, such as increasing efficiency and enhancing production, reducing cost, enhancing social development and causing changes in the environment
- The present use of energy, and its influence on personal life, the development of society, the economy and the environment
- The impact on the environment of pollutants generated by the use of energy, e.g.
 - depletion of ozone layer
 - global warming
 - acid rain
- The influence of environmental pollution and ecological imbalance on the development of energy technology, such as the direction of development in energy exploration, improving efficiency and controlling environmental pollution

- Essential elements of a balanced ecosystem and their importance, such as the role of nutrient cycles in degrading pollutants and replenishing resources
- The environmental disasters caused by the use of energy, and the different ways countries deal with them and their impact
- The influences of planning, managing and regulating energy resources on the use of energy and the environment
- The influences of the distribution of non-renewable energy resources on international relationships

Theme 2: The environment and sustainable development

Questions for enquiry	Related values and attitudes
<p>Why has sustainable development become an important contemporary issue? What is the relationship between its occurrence and the development of science and technology?</p> <ul style="list-style-type: none"> ● How do science and technology match with sustainable development? What are the constraints? ● How do the living styles of people and social development affect the environment and the use of energy? ● What responses could be made by the public, different sectors, and governments regarding the future of sustainable development? 	<p>Responsibility; caring for the living and non-living environments; betterment of humankind; sustainability; simplicity</p>

Explanatory notes

The explanatory notes below aim to help teachers and students understand related issues and suggest possible perspectives and directions in exploring these issues.

- The meaning and principle of sustainable development, e.g.
 - the United Nations' understanding on sustainable development
 - the three dimensions of sustainable development: environmental, economic and social
 - the dynamic balance among the three dimensions
 - the related value principles: peace and equity, conservation, etc.
 - intergenerational considerations
 - views of other organisations
- The factors in science and technology that affect sustainable development, e.g.
 - the development of science and technology
 - the large demand for energy
 - the living environment and facilities
 - resource allocation to scientific research
- Constraints in pursuing sustainable development, e.g.
 - constraints due to natural laws
 - technological constraints
 - constraints due to resources
 - moral considerations
 - socio-economic and political influences
- Factors that affect the environment, e.g.
 - personal lifestyle, such as the influence of materialism and consumerism
 - demands concerning the quality of life
 - geographic locations and cultures

- social development
- The balance between personal quality of life, economic and social development, and environmental conservation
- Different views held on environmental issues, e.g.
 - human-centredness
 - environmental-centredness
 - the interplay between humans and the environment
- The experience of implementing sustainable development in Hong Kong and other places, e.g.
 - urban development in Hong Kong
 - urban development in the mainland
 - the promotion of bicycle use in Japan
 - the balance between environmental conservation and economic development in Costa Rica
- The roles and responsibilities of different stakeholders, such as education and commercial sectors and NGOs, in promoting sustainable development and environmental conservation
- Issues in international collaboration in promoting sustainable development, e.g.
 - the relationships between modes of energy use and economic development of different countries
 - the progress in environmental protection in different countries and international efforts
 - whether the implementation of sustainable development causes tensions among countries
 - the roles and influences of international summits and international collaboration on the threat of global environmental problems

2.8 Independent Enquiry Study (IES)

As an integral part of the curriculum of Liberal Studies, the IES contributes to the curriculum aims by:

- (a) providing an opportunity for students to learn to become self-directed learners responsible for their own learning;
- (b) enhancing students' ability to connect, integrate and apply knowledge, perspectives and skills developed through the three Areas of Study;
- (c) helping students develop higher-order thinking skills and communication skills through investigative exploration of issues; and
- (d) broadening students' horizons and catering for their interests and inclinations.

2.8.1 Objectives of IES

The learning experiences in the IES will help students to:

- (a) set goals, plan, implement the plans and solve problems;
- (b) reflect on and evaluate their learning progress;
- (c) collect data, evidence and information through means appropriate to their enquiry;
- (d) analyse and evaluate information in order to construct knowledge, propose solutions to real issues, and make decisions;
- (e) appreciate the complexities and cross-disciplinary nature of real issues, and identify the various perspectives applicable to the understanding of these issues;
- (f) communicate, articulate and present their thoughts and ideas effectively through appropriate means and media; and
- (g) become motivated and responsible learners.

2.8.2 Nature of IES

Self-directed learning experience

IES is a self-directed learning experience in which the student takes up the major responsibility for learning. In IES, students are “independent” and “self-directed” in the sense that, having consulted a range of references and opinions, they themselves choose their title, the scope, the methods of their investigative study, and the ways of presenting the findings and products of the study. They take the initiatives in raising questions, finding

answers, and evaluating the enquiry process, and they are responsible for their plans and decisions.

Learning facilitated by teachers

Teachers have an important facilitating role in helping students to become independent learners. As a facilitator, the teacher should vary the mode and level of support at different stages of the IES. The teacher is a resource person to help students develop connections across subject disciplines. When they help students to conduct the IES, teachers should respect the students' choices and judgments, and give them freedom to think imaginatively about their projects.

Group learning in IES

In IES, students do not necessarily have to work in isolation. Collaboration and sharing among peers should be encouraged and promoted. While each student is responsible for his / her own IES, sharing and exchanges among them can help them to benefit from each other's insights, experiences, achievements and mistakes. In fact, it is desirable to incorporate group learning in different phases of the learning process of IES.

Examples of how group learning activities contribute to the IES process

- Discussion in groups can help students to formulate ideas and deepen their understanding of a common theme or problem. The IES of individual students can be founded upon different issues raised in such discussion.
- Students may share the workload of collecting information and resources common to each other's IES. Students working on related titles can conduct field work or visits in groups to gather information.
- Individual students may also draw up their own learning plans from the experience of a community service conducted in a group.
- Students can give a presentation on the plan, the progress and the product of their IES to their group members and receive comments and feedback from each other.

However, it is essential that the IES includes elements of individual investigation, thus providing students with opportunities for self-directed learning and assessment of individual student work.

An integral part of the Liberal Studies curriculum

IES is an integral part of student learning in Liberal Studies. The learning in the six modules of the three Areas of Study provides the foundation and contexts from which students can formulate their own IES topic. In conducting the IES, students are expected to draw on their learning in the Areas of Study, and apply relevant knowledge, perspectives and skills to investigate a contemporary issue that is not covered directly in the six modules. Through the self-directed learning process, students will learn to make connections among different modules in the Liberal Studies curriculum, as well as among different subjects and learning opportunities they experience as senior secondary students. They will also have an opportunity to apply understanding and perspectives to authentic issues and problems and extend their learning to a new situation.

2.8.3 The Titles for Students' IES

Connecting to the Areas of Study and extending to new issues

As indicated above, the title a student chooses for IES should be related to his / her learning in the Areas of Study and yet should extend to a new problem, issue or context not directly covered in the six modules. In short, the title chosen should bear linkages to one or more of the Areas of Study and extend to new themes or issues, so that IES can provide students with an opportunity to connect, to apply and to extend their learning in Liberal Studies.

Possible IES titles showing linkages to Areas of Study in Liberal Studies

The coverage of an IES title, in relation to the Areas of Study, can range from a focused study on a topic emphasised in one Area only (e.g. “The impact of exposure to violent messages in the media on style of interpersonal communication”), to a relatively holistic review of a topic with cross-area insights (e.g. “Sports participation in Hong Kong and its impact on personal and public health”).

Themes of Enquiry

A list of suitable Themes of Enquiry is suggested for the purpose of connecting, applying and extending concepts learnt from the six modules. The list of these themes is not intended to confine student choice. It is provided simply as a set of examples, and as a basis for student grouping, to exploit the advantages of group learning mentioned in earlier paragraphs.

The Themes suggested are as follows:

- Media
- Education
- Religion
- Sports
- Art
- Information and Communication Technology (ICT)

These Themes of Enquiry are proposed taking into account the following criteria:

- Their potential for inviting multiple perspectives and for broadening knowledge
- Their potential for connecting the three Areas of Study
- Their potential for generating interesting and manageable titles of IES

Multi-perspective nature of Themes

Though some of the suggested Themes share a similar name with an elective subject in the three-year senior secondary curriculum, it should be noted that their nature and orientation are very different. The Themes are to be understood in relation to the context of the three Areas of Study, and they are concerned with issues of contemporary significance. They should be explored from a range of perspectives across subject disciplines, and should not be studied in the way that academics or professionals in these specific fields would do this.

The difference between an IES in Liberal Studies and study in other subjects

A technical analysis of the forms and style of the music of Bach, though related to Art as one of the Themes, would not be accepted as an IES title, unless the study could in some way relate Bach's music to contemporary issues of significance to the human

world or the environment.

The Themes of Enquiry are elaborated in Appendix 1 on p.145. For each Theme there is an introduction and a list of enquiry questions on related contemporary issues in the context of the different Areas of Study. Please note that these enquiry questions outline the scope and direction for possible investigation, and should not be taken literally as recommended titles for IES. Students may use the suggested enquiry questions as a start, and work out step-by-step the title for their IES, its methodology, scope of research and the mode of enquiry under teacher supervision and guidance.

Why should some Themes be suggested?

One of the reasons why these Themes are proposed is that they may facilitate collaboration among students and peer learning in the conduct of individual studies. Teachers might encounter difficulties if they have to handle a group of students whose IES titles do not share any common themes.

However, grouping by Themes should not be seen as the only or most desirable way to organise students for the learning and teaching activities related to IES. Teachers are advised to vary their strategies according to the different characteristics of their students and the different IES stages.

The themes suggested will also provide the focus for the development of resources and teacher professional development. Adequate and focused support measures for IES are important as a large number of teachers will be involved in supervising students' IES, and the experiences of these teachers in such work varies considerably.

Titles outside the suggested Themes

These Themes of Enquiry are “non-mandatory” in the sense that students' titles of IES should not be confined to the suggested Themes. Schools may offer other themes to help students develop their IES titles, or teachers may adopt their own strategies to help students develop their own IES titles. In other words, titles related to more than one of the suggested

Themes, or unrelated to any of them are all allowed, provided that they can connect to the Areas of Study and extend to contemporary issues not directly discussed in the six modules.

Drawing on support from other organisations in the community

Many organisations in Hong Kong launch study award schemes and inter-school project learning competitions to promote students' awareness and understanding of certain ideas, many of which can become a meaningful theme for IES. Some of these organisations also have experience in providing training programmes and resource materials for teachers to provide life-skill learning and project learning activities which are in line with the Liberal Studies curriculum. Also, the possibility of help from other organisations, such as NGOs, can be explored.

2.8.4 Specifications for the IES

The IES has to be investigative and involve the following three stages:

(a) Stage I

- Selection of study area / theme
- Collection of background information
- Confirmation of the question for enquiry
- Design of work plan and schedule

(b) Stage II

- Collection of data / other kinds of information
- Organisation of data / other kinds of information

(c) Stage III

- Analysis of data / information
- Evaluation of different points of view
- Presentation of IES results, amendments according to feedback
- Writing up of study report, adoption of suitable ways to show the results of the study

In IES, students' performance is evaluated in all stages of the process including the presentation of the final report or product. Students are allowed to use different formats or

modes to present the results of their studies, and these will be supplemented with records of their learning process and reflections on it. The assessment of IES will be explained in detail in Chapter 5.

2.8.5 Lesson time for IES

It is suggested that 82 hours of lesson time should be allotted to the support of students in the conduct of their IES. Teachers are advised to spend the time flexibly on:

- helping students to develop a general understanding of the themes of enquiry in the context of the three Areas of Study;
- helping students to decide on the topic, scope and focus;
- coaching students in the skills needed for conducting the IES;
- supervising student progress;
- organising activities in support of IES, e.g. visits, field trips, talks, etc.; and
- promoting exchanges and collaborative learning among students, and getting them to share their problems and progress, and present their findings and products.

Students are expected to use their own time, in addition to the designated lesson time, to conduct their IES.

2.9 Time Allocation

The total lesson time allocated to Liberal Studies in the senior secondary curriculum is 250 hours. It is proposed that about 168 hours are allocated to the six modules with 82 hours reserved for the IES, so that students will have enough time for developing ideas and enhancing their generic skills. This will also enable teachers to supervise and guide student progress.

The table shows the proposed overall time allocation:

Areas of Study	Modules	IES
Self & Personal Development	168 hours for all 6 modules	82 hours
Society & Culture		
Science, Technology & the Environment		
TOTAL: A minimum of 250 hours ² within the three years of senior secondary education		

² The lesson time for Liberal Studies and each elective subject is 250 hours (or 10% of the total allocation time) for planning purpose, and schools have the flexibility to allocate lesson time at their discretion in order to enhance learning and teaching effectiveness and cater for students' needs.

“250 hours” is the planning parameter for each elective subject to meet local curriculum needs as well as requirements of international benchmarking. In view of the need to cater for schools with students of various abilities and interests, particularly the lower achievers, “270 hours” was recommended to facilitate schools’ planning at the initial stage and to provide more time for teachers to attempt various teaching methods for the NSS curriculum. Based on the calculation of each elective subject taking up 10% of the total allocation time, 2500 hours is the basis for planning the 3-year senior secondary curriculum. This concurs with the reality check and feedback collected from schools in the short-term review, and a flexible range of 2400±200 hours is recommended to further cater for school and learner diversity.

As always, the amount of time spent in learning and teaching is governed by a variety of factors, including whole-school curriculum planning, learners’ abilities and needs, students’ prior knowledge, teaching and assessment strategies, teaching styles and the number of subjects offered. Schools should exercise professional judgement and flexibility over time allocation to achieve specific curriculum aims and objectives as well as to suit students' specific needs and the school context.

Chapter 3 Curriculum Planning

This chapter provides guidelines to help schools and teachers to develop a flexible and balanced curriculum that suits the needs, interests and abilities of their students, and the context of their school, in accordance with the central framework provided in Chapter 2.

3.1 Guiding Principles

The Senior Secondary Liberal Studies curriculum allows for flexibility and innovation in curriculum planning. To provide access to a rich variety of learning experiences, a balanced and coherent school-based curriculum should be developed, emphasising the active role of learners in the learning process. When planning and developing their Liberal Studies curriculum at senior secondary level, schools and teachers are encouraged to consider the following major principles:

- (a) Students' prior knowledge gained from the eight KLAs in basic education, and their experiences to date in enquiry learning and self-directed learning are the foundation for their study of Senior Secondary Liberal Studies and should be taken into account when planning the curriculum.
- (b) Liberal Studies is an integral part of the three-year senior secondary curriculum and should be purposefully linked to students' learning experiences in the other components of the overall curriculum.
- (c) The curriculum should aim at providing balanced and coherent learning experiences which broaden the students' knowledge base, develop their generic skills and foster positive values and attitudes.
- (d) The curriculum should encourage independent learning and help to develop learning to learn capabilities in students.
- (e) The curriculum should cater for student diversity in needs, interests, abilities and styles of learning.
- (f) Assessment should be designed as an integral part of the process of learning and teaching.

3.2 Progression

Each of the six modules in the three Areas of Study is built on the foundation of students' prior learning experiences in basic education in the Hong Kong school curriculum. The six modules are interconnected, with issues in any one module linked to issues in the others. While no one module is a pre-requisite for studying the others, experience with one module will enrich exploration in the others.

While students should be encouraged to take the initiative to keep up-to-date on contemporary developments in issues studied, it is advisable to allow time in S6, and probably S5 as well, to revisit modules covered in the earlier stages of study. Within a three-year course of study, one can expect significant growth in the students' cognitive development and general maturity. Revisiting the modules gives them an opportunity to apply new insights and broader perspectives, as well as make connections among modules across the three Areas of Study. This will also update them on the issues related to different modules.

Schools may also wish students to study some issues related to each of the Areas of Study during S4. This would equip them with relevant knowledge and perspectives on all the Areas at an early stage of study, prepare them better for developing linkages among the modules they will study, and provide a balanced foundation for starting to consider the IES. Similarly, schools can allot the lesson time for IES flexibly throughout the three years to fit the overall curriculum planning of the subject. For schools which deploy different, or extra, teachers to take care of students' IES, the time allocation will have to take timetabling arrangements into consideration.

In fact, many of the skills required for conducting the IES can be learnt in the context of the modules, so there may be no need to draw very clear distinctions between lesson time for the modules and that for IES, especially during the preparatory stage of IES in S4. Students can learn to ask and refine their own questions through enquiry into issues in the modules; and they can learn about research and surveys through examining the methods and findings of others, or through conducting small enquiry projects themselves within the modules.

The curriculum framework does not, therefore, prescribe a fixed sequence of modules throughout the three years of study, or a rigid schedule for conducting IES. The school-based curriculum can be organised flexibly with different sequences and schedules to suit the expertise of teachers, students' characteristics and other school conditions.

There can be different approaches depending on circumstances and needs. For example, schools can vary the sequence of the modules chosen for each year, or consider splitting the lesson time per week / cycle into halves and teaching two modules at a time, with two teachers. It is not a must for schools to plan the progression by arranging complete modules in successive blocks. Some or all of the modules can be “broken up” into parts that are taught in different years according to different considerations. Teachers may arrange parts of all modules to be studied in S4 and the first half of S5, so that students will have a broader exposure before deciding upon the IES title. When identical or similar concepts are involved in the Questions for Enquiry or Themes in different modules, these Questions or Themes can be explored together, one closely after another, within the same term or within the same year. Parts of the modules that relate more to issues that interest S4 students can be explored in S4, while those more related to the life of S6 students can be studied in S6. The lesson time allocated for IES over the three years may also vary. Students with good experience in project learning in the junior secondary school may be more ready to start IES than others and need less lesson time. The principles behind progression planning in Liberal Studies, with examples for consideration, will be further elaborated in the professional development programmes (PDP) and shared at the Web-based Resource Platform for Liberal Studies.

3.3 Curriculum Planning Strategies

In planning the implementation of the Senior Secondary Liberal Studies curriculum, schools should consider adopting the following curriculum planning strategies.

3.3.1 Interpreting the curriculum

The curriculum of this subject is mainly described in terms of groups of enquiry questions. Teachers should interpret the curriculum by translating these enquiry questions into issue-enquiry learning and teaching processes. It is also important that teachers help students to see the relevance of the curriculum to their everyday life experience. The PDP on Senior Secondary Liberal Studies (organised by the Curriculum Development Institute, EMB) includes a core component on “Understanding and Interpreting the Curriculum”, which provides advice on designing an issue-enquiry teaching plan for a module, a theme or a cross-modular thematic unit in Liberal Studies.

From the curriculum document to an issue-enquiry teaching plan

An experienced Liberal Studies teacher of Sha Tin Methodist College takes the following steps to draw up the teaching plan of a module in the curriculum.

- Careful study of the enquiry questions set out in the curriculum and identification of the key concepts embedded in the questions with due consideration to the students' prior knowledge, student interest and the time available
- A mapping out of the interrelationships among the key concepts
- Identification of issues that involve the key concepts
- Development of smaller enquiry questions for each issue
- Drawing up a teaching plan for a series of lessons, including the learning targets (in terms of knowledge, skills and values), the learning and teaching activities, and the extended activities and assignments, together with assessment designs.

Please refer to Appendix 2 on p. 152 for an example of a teaching design for a topic in the module on Personal Development in IH (S4–5).

3.3.2 The interface between the junior secondary and senior secondary curricula

The design of the Senior Secondary Liberal Studies curriculum, like other senior secondary subjects, is based on students' balanced learning experiences in the eight KLAs during basic education. Schools should review the junior secondary curriculum in accordance with the recommendations in *Learning to Learn* (CDC, 2001), *Basic Education Curriculum Guide* and the *KLA Curriculum Guides* of the eight KLAs (CDC, 2002), and ensure that students have a solid foundation in the different disciplines, and sound development of generic skills and positive values and attitudes. Prior learning experiences in the various subject disciplines are shown in the "relevant learning experiences in basic education" section at the beginning of each module in this Guide (p. 17, 25, 33, 40, 45 and 51). This is an important reference for teachers. Teachers of Senior Secondary Liberal Studies are encouraged to communicate with teachers at the junior secondary level to assess the students' attainments in the different areas of their studies.

In the document *Basic Education Curriculum Guide* (CDC, 2002), four Key Tasks - Moral and Civic Education, Reading to Learn, Project Learning and IT for Interactive Learning - were proposed for the development of students' generic skills and the enhancement of their ability to learn independently. With the implementation of these Key Tasks, junior secondary students will have a solid foundation as a prerequisite for studying the Senior Secondary Liberal Studies curriculum.

Cross-subject / KLA project learning at the junior secondary level

Cross-KLA project learning, an effective means of developing higher-order thinking skills and multiple intelligences, has already been adopted as one of the key curriculum reform strategies for junior forms in many secondary schools. Committees or working groups have been set up in schools to develop curriculum plans for project learning, and sufficient lesson time is now allocated for this purpose (e.g. lessons for Project Learning Workshops). Successful implementation of project learning in the junior secondary curriculum will certainly contribute to better preparation of students for conducting IES in Senior Secondary Liberal Studies. (Please read *Project Learning*, Booklet 3C in *Basic Education Curriculum Guide Series* (CDC, 2002), and also visit http://cd1.edb.hkedcity.net/cd/projectlearning/index_e.html for more information about project learning.)

One objective of Liberal Studies, amongst others, is to enable students to identify values behind issues, to develop and apply critical thinking and creativity, and to develop multiple perspectives relevant to making sound judgements. In the junior secondary curriculum, a wide range of learning and teaching strategies relevant to this objective, such as debate, role-play and group discussion, can be employed to foster students' spirit of enquiry and to develop their discernment abilities.

Preparing students for group discussion

Group discussion is a learning and teaching activity which teachers frequently employ in Liberal Studies classrooms. However, students need a range of skills before they can have fruitful group discussion. For example, they need to learn how to lead group discussions and take notes on the main points which arise, and they need to develop

the subtle communication skills involved in group dynamics. Teachers across subjects need to work together to equip students with this range of skills through a division of labour among the different subject teachers in the junior secondary curriculum. Students can then make the best use of time in group discussions and group work activities when they are in Senior Secondary Liberal Studies lessons. Peer learning and teamwork are essential for developing lifelong learning skills. Teachers may refer to Appendix 3 on p. 153 for a short report on how a teacher employs various strategies to prepare students to participate effectively in group discussion.

While schools are advised of the importance of providing balanced learning experiences through organising the junior secondary curriculum flexibly, preparation for Liberal Studies at senior secondary level does not require a corresponding “Liberal Studies” subject in the junior secondary curriculum. It is certainly not advisable for schools to spare lesson time for a junior secondary “Liberal Studies” subject by cutting out essential contents from other KLAs (e.g. Personal, Social and Humanities Education and Technology Education), which are important to students’ knowledge foundation.

3.3.3 Catering for student diversity

In order to help all students achieve the learning goals of the curriculum, teachers may vary the degree of support and guidance according to the level of student ability.

Catering for student diversity in ability

In trying to understand the background of a certain issue, students of higher ability may be able to sort out important facts and information with minimum teacher input, while less able students may need the teacher to provide more information before they can start their own exploration.

Teachers can adjust the learning tasks to suit the abilities and needs of students. For example, some students may find doing an independent study on their own very challenging. In such cases, using small and less demanding tasks, with teacher guidance, can gradually build up their capacity and confidence. On the other hand, many students will need challenging tasks to motivate them and fulfil their full potential.

The curriculum plan designed for Liberal Studies should include different types of learning activities to suit students with different styles of learning and to develop different abilities.

Catering for student diversity in learning style

Some students learn most effectively through listening and reading, and others learn better through an experiential mode. Most need a variety of learning modes in order to develop different abilities, to sustain interest and to engage in reflective thinking. A variety of resources, including textual, visual and audio materials should be available.

Differences among students can create good learning opportunities. Teachers may make use of these differences to arrange group learning activities that involve the playing of various roles and that invite students to make different contributions.

Learning opportunities with student diversity

Students with different strengths

Students with different strengths can work together to accomplish tasks and in the process learn from their peers. For example, in a group discussion, a member with good leadership skills can be assigned to be the convenor; one with better language abilities can be given the role of summarising and reporting the conclusions of discussion; more outspoken members can be invited to give their views on the discussion topic; and those members with better analytical skills can be asked to observe and give comments. To start with, students may be asked to take roles which are more closely related to their abilities and orientations, but the roles can be rotated later when they are better acquainted with the learning process in discussion. At other times it will be important to ensure that individual students' weaker areas are strengthened rather than always playing to their strengths.

Students from different backgrounds

Students of different SES have different views and experiences to share. For example, students who were born in the mainland or have stronger family ties there, may have many personal experiences to share with their classmates about recent developments in

the country. Discussion on the quality of life in Hong Kong will also be more comprehensive if teachers can solicit the experiences and views of students with different family backgrounds. Teachers may like to read the views of a teacher from Nam Wah Catholic Secondary School on this issue in Appendix 4 on p. 155.

Students taking different electives

Students taking different elective subjects can share what they have learnt. For example, students studying History or Chinese History may help others in connection with, for example, the historical development of modern China, or the historical background of the WTO; and students taking Biology or Chemistry may contribute to discussion on health-related issues by collecting information on disease and reporting it to the class.

3.3.4 Encouraging self-directed learning

Teachers should help students to develop skills and habits that will enable self-directed learning. For example, teachers should help them to acquire certain information skills, including searching the Internet, as early as possible, so that they can use these skills in the rest of the course. (Please read *Information Technology for Interactive Learning*, Booklet 3D in the *Basic Education Curriculum Guide Series* (CDC, 2002), and also visit <http://www.edb.gov.hk/index.aspx?langno=1&nodeID=2400> for more details on how IT can support interactive learning.)

Reading to learn is a strategy for helping students to acquire knowledge and broaden their perspectives on their own, without requiring teacher supervision or extra lesson time. Teachers can encourage reading by incorporating a reading list into each module, organising book clubs, or designing award schemes to motivate reading. There is considerable room here for collaboration with the teacher librarian and language teachers. (Please read *Reading to Learn*, Booklet 3B in the *Basic Education Curriculum Guide Series* (CDC, 2002), and also visit <http://www.edb.gov.hk/index.aspx?langno=1&nodeID=2398> for more information about reading to learn.)

3.3.5 Making use of ad hoc issues and life events and designing cross-module topics of study

Liberal Studies provides many opportunities for students to study what is happening around them and issues which affect their lives. Teachers should make use of up-to-date sources on contemporary affairs. Flexibility should be provided in the planning of the curriculum in order to make room for discussion on ad hoc issues and life events. Liberal Studies must link study to daily life. (Please read *Moral and Civic Education*, Booklet 3A in the *Basic Education Curriculum Guide Series* (CDC, 2002), and also visit the following website: <http://www.edb.gov.hk/index.aspx?nodeid=2397&langno=2> for more information about the Life Event Approach to teaching Moral and Civic Education.)

These ad hoc issues or life events can often be used to link up themes and questions from different modules in the three Areas of Study. Teachers can re-organise the enquiry questions suggested in the curriculum by using such cross-module topics so as to help students appreciate the interconnection between the different modules, and appreciate the cross-disciplinary, multi-perspective nature of the subject. Some suggested schemes of work are provided in Appendix 5 on p. 157 to illustrate how this might be done.

There is no need for students to go over the questions listed in each module one by one in the sequence suggested in this C&A Guide. The sequence suggested for each module is just one of many possible pathways of enquiry to cover the learning objectives of the module. However, careful curriculum auditing is necessary in this case to ensure adequate coverage of the learning objectives in the Areas of Study. The “Understanding and Interpreting the Curriculum” PDP will help teachers to make use of the open and flexible central curriculum framework to develop their school-based Liberal Studies curriculum.

3.3.6 Linkages to other learning experiences (OLE) and life-wide learning opportunities

The three-year senior secondary curriculum provides for some 10% - 15% of the total lesson time for OLE, including those related to moral and civic education, community service, career-related experiences, and aesthetic and physical activities. These learning experiences enrich Liberal Studies, while meeting their own specific aims. For example, students conducting IES on the theme of “Art” can make use of the aesthetic activities organised by the school (such as a visit to the Hong Kong Museum of Art) to develop ideas for their studies.

Life-wide learning experiences can enrich and extend students' learning. Through community services, students acquire personal knowledge of some aspects of the community, and have to reflect on their own commitment to society. Study tours to neighbouring regions give students a comparative perspective on issues in Hong Kong. (Please read *Life-wide Learning – Enriching Learning through Authentic Experience*, Booklet 6 in *Basic Education Curriculum Guide Series* (CDC, 2002), and also visit the following website for more advice:

[http://www.edb.gov.hk/index.aspx?langno=1&nodeID=3110.](http://www.edb.gov.hk/index.aspx?langno=1&nodeID=3110))

Students' reflections on an investigation of Hong Kong's economic problems

A group of S4 students from Sha Tin Methodist College conducted field visits to Shamshuipo and Happy Valley to study the issue of uneven distribution of wealth in Hong Kong for their study of IH¹. They were astonished to find the great disparity of living standards between the residents of Shamshuipo and those of Happy Valley. One of the students reflected, "I used to think Hong Kong is an international finance centre and people here should be richer than those in many other countries. When I visited Shamshuipo, I was shocked to see so many poor people living hand-to-mouth. I interviewed an old lady there who spends \$30 dollars a month renting a tiny, shabby corner in a very old building, but she earns less than \$1 a day. Now I have a deeper understanding of the problem of uneven distribution of wealth in Hong Kong, because I have seen it."

Another student echoed the same point. "The study opened my eyes. I would not have imagined such a great difference between the living standards of the two districts in our small Hong Kong. The visits helped me to learn more about Hong Kong, and to extend my horizons beyond the estate in which I live."

3.3.7 Cross-curricular collaboration

Teachers may wish to explore possibilities for cross-curricular collaboration to fulfil the connecting function of Liberal Studies in the curriculum. Language teachers and Liberal Studies teachers may jointly run an annual inter-class debating competition, with the former taking care of communication skills and the latter the exploration of issues and arguments. Liberal Studies teachers may also partner with Mathematics teachers in designing activities

¹ Integrated Humanities (IH) (S4–5) is a cross-disciplinary subject in the Personal, Social and Humanities Education KLA primarily designed for students who take only one subject in this KLA.

to develop statistical literacy. Teachers of Liberal Studies and of Chinese History may also coordinate their teaching schedules on, say, the development of modern China; or they could jointly provide activities with the Moral and Civic Education programme team to enhance understanding of Hong Kong society and to develop civic awareness.

Collaboration between Integrated Humanities (IH) and English Language

Pui Ching Middle School offered IH (S4–5) with English as the medium of instruction (MOI) to a group of 20 students. These students have high academic ability, and took IH as the tenth subject in the Hong Kong Certificate of Education Examination (HKCEE) 2005. They had only three lessons per cycle for IH, which were team-taught by an IH teacher and an English teacher, who was also teaching them English Language for 7 periods per cycle. When teaching language skills in the English lessons, the English teacher, like many other English teachers, made use of many newspaper articles and magazine texts. However, for this class, he chose those related to the IH modules whenever appropriate. He also adapted learning resources for IH to strengthen students' reading skills. Written assignments were designed to consolidate students' learning in IH and at the same time to improve their writing skills by engaging them in different writing styles. Speaking and listening skills were also practised when students were asked to exchange views with their classmates and express their own opinions on issues related to the IH modules.

The English teacher spoke positively about the collaboration between IH and English: "IH is a good complement to the senior secondary English Language curriculum. Since much of the English Language lesson time is spent on practising language skills, IH fills the gap and provides a platform for students to learn more about society and current issues. Besides, IH helps to improve writing and reading ability as it requires students to read and write a lot." The students took part in the first HKCEE of IH and the teachers were very satisfied with their students' results.

With the introduction of the open and flexible curriculum framework in Chinese Language (S4–5) in 2005, similar cross-curricular collaboration is also possible between Chinese Language and IH, and in fact has been implemented in certain IH classes. Such collaboration between Liberal Studies and the languages in the senior secondary curriculum can bring benefits to learning in both Liberal Studies and the language subjects.

3.3.8 A whole-school approach to curriculum planning in Liberal Studies

As mentioned before, Liberal Studies may be linked to different educational programmes in the school. For example, Moral and Civic Education, Environmental Education, Sex Education, Life-wide Learning, Service Learning, Media Education, Life Education, Health Education can all contribute to enhancing the learning of issues related to Liberal Studies. Students will benefit from a well coordinated whole-school approach that links up different educational programmes.

Linking Liberal Studies with other school programmes

Well-known speakers can be invited to address certain Liberal Studies issues in the weekly or morning assemblies. The class-teacher's period can be linked to issues related to personal development and interpersonal relationships. Schools can also link their counselling programme with the issues of enquiry in Module 1. Summer or long holiday programmes, such as study visits to other places or summer camps, can also enhance student enquiry in certain Liberal Studies modules.

The coordination of different school programmes with learning and teaching in Liberal Studies requires collaboration between the Liberal Studies panel and different school departments or committees, curriculum leaders, vice-principals and school heads. It would of course not be sensible for all programmes in the school to focus on Liberal Studies, but if students are able to see the linkages and can learn from linked programmes, the learning time for Liberal Studies will not be confined to 250 hours over three years.

3.3.9 Integrating learning with assessment

Assessment is an integral part of the learning and teaching process. It provides a further opportunity for learning, in addition to measuring achievement. The learning tasks in Liberal Studies should include assessment of student learning and provision of feedback on how learning and teaching can be improved.

For example, IES in Liberal Studies is a learning task for skills development and knowledge construction. At the same time, it is an assessment process through which teachers monitor student progress and the direction the research is taking. Students are kept informed of how

they are performing through continuous feedback from teachers and in some circumstances from their peers.

3.4 Curriculum Management

Good curriculum management enables schools to plan effectively and promotes smooth curriculum implementation and the management of change over time. Some important considerations for good curriculum management are noted below.

3.4.1 Understanding the curriculum, student needs and the school context

It is important for curriculum leaders and teachers to have a good understanding of the rationale, aims and the framework of the Liberal Studies curriculum, as well as knowledge of their students' needs and other aspects of the school context. Successful implementation of the Liberal Studies curriculum requires alignment between the aims of the subject and the vision of the school, with due considerations of the strengths and needs of the school and its students.

Facing the challenge together

Three young teachers of Geography, Chinese History and Commerce respectively taught in a school with students of low ability, learning difficulties and poor motivation. When the teachers were assigned to teach IH (S4–5), they wondered if their students could cope with the open and flexible curriculum; and they were also concerned about their own limited teaching experience.

These young teachers met regularly after school to plan for lessons, to share subject expertise, to celebrate students' successes (though they were often small ones), and to express their frustrations. They participated actively in seminars, workshops and activities of the IH teacher network to learn from teachers from other schools. They also collaborated positively with Curriculum Development Institute officers to adapt the curriculum for their students and develop learning and teaching strategies. Their hard work was rewarded by students' enhanced interest in the subject and improvements in aspects such as communication and writing skills, the development of multi-perspective thinking and analytical thinking.

Curriculum planning with the constraints of time

Adopting an open curriculum framework, the modules in Liberal Studies may give an impression of having a rather broad coverage. The limited lesson time is a challenge for many teachers in helping students to master the important issues and develop understanding of the module. The case is similar to that of teachers of IH (S4–5), which was implemented in 2003 and adopted a similar approach to curriculum design. An IH (S4–5) teacher from T.W.G.Hs. Mr. & Mrs. Kwong Sik Kwan College, shared how he handled the seemingly broad modules within the limited time in a way that suited the needs of his students.

1. School-based planning of the modules

In planning for the learning and teaching of the modules, he considered the needs, interests and level of ability of his students, and reorganised the curriculum content accordingly. Noted below are the steps he took:

- a. Sorting out the interrelationship among the suggested questions for enquiry
- b. Identifying the concepts relevant to the module
- c. Integrating and reorganising the enquiry questions into a simpler flow
- d. Choosing a range of suitable issues that would engage students with the enquiry questions

The result was more clarity in the learning objectives, a smoother flow in the enquiry process, and more effective use of lesson time.

2. Building on students' prior knowledge

Before discussing a new issue with the students, he found it very useful to design some short activities to check their prior knowledge. With a better understanding of what the students knew about an issue beforehand, he could start the discussion with a better focus and avoid spending time on things that students already knew. Students learnt with better motivation, enhanced confidence and more interest since they could link the learning experience with their prior knowledge.

3. Strengthening students' skills

Good mastery of generic skills enables students to learn efficiently and effectively. The teacher purposefully embedded the teaching of generic skills into the discussion of the issues, so that students really learnt how to learn as they went through the modules. When students are equipped with more skills, they learn faster and more effectively.

3.4.2 Organisation and structure

A curriculum planning committee should be set up for planning the school-based implementation of the Senior Secondary Liberal Studies curriculum. Membership should include the subject coordinator, Liberal Studies teachers, and if necessary, teachers of other subjects for better coordination of cross-curricular learning.

The role of the school principal in the introduction of a new subject

IH (S4–5), S&T (S4–5), and Liberal Studies share many features in common, and they are new to many teachers. School heads can help the IH / S&T / Liberal Studies panel to plan effectively. Please refer to Appendix 6 on p. 164 to see how a school principal reflected on his role in introducing IH (S4–5) in his school.

3.4.3 Planning the curriculum

The curriculum framework of the subject allows considerable flexibility in the sequence and organisation of the different components of the curriculum. In the overall planning of the curriculum, teachers make decisions on the scope and focus of each module in accordance with the aims of the subject and the needs and interests of the students. Teachers also make decisions on a wide range of other issues: the arrangement of learning activities, assessment strategies, the choice and design of learning materials to support enquiry learning, timetabling, and measures and strategies to support students' self-directed learning in IES.

55 minutes vs. 35 minutes

In order to enhance the quality of learning and teaching, CCC Ming Kei College has been implementing a “new timetable” since 2002. The changes are as follows:

- The number of lessons has been reduced from 9 to 6 per day.
- The duration of each lesson has been lengthened from 40 minutes to 55 minutes for the Standard Timetable (and 35 minutes to 50 minutes for the Summer Timetable).
- The 6-day cycle has been changed to a 7-day cycle in order to increase the total number of periods available for teaching.

The advantages for the adoption of a “new timetable” are:

- to save students’ time in travelling between special rooms and classrooms during the change of lessons. The total time for lessons each day does not change, but the available time for teaching is increased;
- to enhance the quality and quantity of teaching — the 15-minute longer lesson time allows teachers to adopt different strategies including the application of IT, debates, group discussions, and various kinds of interactive activities so as to enhance students’ learning interests, and it also allows time for teachers to consolidate the learning of students at the end of each lesson;
- to allow students to concentrate more on their learning as fewer subjects are allotted for lessons daily; and
- to give more room for teachers to prepare for lessons — as teachers teach fewer lessons and classes each day, they have more time to prepare and design lessons with different teaching strategies, and thus students benefit from the changes.

3.4.4 Building capacity

Liberal Studies, as a core subject comprises three Areas of Study and IES. It will involve a significant proportion of the school’s teaching force and will be taught by teachers with varying levels of expertise. In considering the deployment of teachers to the appropriate areas of study or IES, reference should be made to their expertise and interests. In view of the great diversity in academic background in the Liberal Studies panel, it is necessary to promote the sharing of views among them. Also, priorities have to be set for teachers’ professional development in areas such as teachers’ roles and assignments in Liberal Studies.

A positive culture in teacher learning and team-building can be cultivated by arranging collaborative lesson preparation periods and encouraging peer observation. The formation of a Liberal Studies Learning Group or in-house staff development workshops will be helpful for enhancing professional sharing among Liberal Studies and non-Liberal Studies teachers.

Experience sharing of a Liberal Studies panel chairperson

The challenges facing a Liberal Studies panel chairperson are quite different from those facing other subject panel chairs. Most Liberal Studies teachers are not Liberal Studies experts – they have their own single discipline subject expertise. Liberal Studies teachers therefore need to work together more and undertake more professional development than teachers of other subjects. Some of them might not have chosen to teach Liberal Studies at the outset.

The experience of a Liberal Studies / IH (S4–5) panel chairperson may shed some light on this issue. Please refer to Appendix 7 on p. 165 to read about this.

3.4.5 Developing learning and teaching resources

Success in learning and teaching Liberal Studies hinges on the availability of a variety of suitable and updated resources. A collaborative effort among teachers is needed in building up a resource bank for the subject. The resource bank can also include materials for students' self-directed learning. An online resource bank which provides learning resources with a wide coverage and a variety of forms and styles, representing different viewpoints, would be very helpful in learning and teaching the subject. Useful sources for supporting Liberal Studies can be gathered from the EMB's Web-based Resource Platform for Liberal Studies, and from other organisations such as higher education institutions, NGOs, and social services and commercial organisations, and from academics and professionals.

Role of the teacher librarian in developing resources

While the implementation of Senior Secondary Liberal Studies is some time away, the teacher librarian of Henrietta Secondary School has started gathering resources to support the learning and teaching of Liberal Studies. First of all, she found it important to acquaint herself with the rationale, nature and curriculum framework of the subject,

so she took part in some Liberal Studies seminars and workshops. Then, having secured financial support from the school, she started to build up the resources collection for the subject in the following ways:

1. She searched for and reviewed learning and teaching resources developed by different institutions, and classified them into teachers' and students' references.
2. She understood that Liberal Studies connects knowledge and perspectives from different subjects, and thus resources for other subjects might also be appropriate references for it. In this light she reviewed the library collection and re-categorised its subject headings.
3. She expanded the periodical and magazine collection to provide more updated articles and commentaries for studying issues relevant to Liberal Studies.
4. She drew up the acquisition list of learning and teaching resources in consultation with teachers who were going to teach the subject. She also encouraged these teachers to make recommendations, should they discover suitable materials in the market.
5. Apart from subscribing to online resources such as online newspapers, she also searched for relevant websites and categorised them to facilitate easy access to and retrieval of information.

She expects that a basic collection will be ready by 2008. This will be the foundation for further expansion when the curriculum is implemented.

3.4.6 Managing change

In order to sustain the Liberal Studies curriculum over time, it is important to monitor progress and evaluate the effectiveness of learning and teaching. The Liberal Studies panel can undertake action research, or self-evaluation for periodic reviews on the learning and teaching of the subject. Such activities give teachers valuable data on how to refine and enhance their practices for developing the Liberal Studies curriculum.

Chapter 4 Learning and Teaching

This chapter provides guidelines for effective learning and teaching of the Liberal Studies curriculum. It is to be read in conjunction with Booklet 3 in the *Senior Secondary Curriculum Guide* (2007), which provides the basis for the suggestions set out below.

4.1 Knowledge and Learning

4.1.1 Views of knowledge

In a knowledge-based society, knowledge exists in various forms and contexts. While there are disciplines with established knowledge that contribute to understanding the contemporary world, knowledge is always changing. Knowledge is contextualised, multi-disciplinary, and personally and socially constructed. Learners **acquire knowledge** through activities such as listening to instruction, reading and modelling. They also **construct knowledge** through personal reflection and experiential learning, as well as through interaction, collaboration and dialogue with other people.

Liberal Studies plays an important role in the three-year senior secondary curriculum. For example, it helps learners to make connections among various disciplines and forms of knowledge, and to learn with and from other people, as well as developing their capacity for “learning to learn”. Students learn by constructing meaning out of the knowledge of different disciplines, personal experiences and interactions with the human world and the physical environment; and they make connections among the above through the study of contemporary issues. The challenge for the teacher is to adopt a pedagogical approach that is consistent with the dynamic nature of knowledge and conducive to the development of students’ lifelong learning skills.

4.1.2 Constructing knowledge through issue-enquiry

The knowledge construction process in Liberal Studies involves elements presented in the three essential components of the curriculum: knowledge, generic skills, and values and attitudes.

The place of content knowledge

Liberal Studies does not involve rejecting the importance of disciplinary knowledge and facts. “Content” knowledge from subject disciplines provides facts, concepts and perspectives that enhance an understanding of the complex issues covered in Liberal Studies, and serves as an anchor for acquiring more information and constructing new knowledge. Therefore, the knowledge learnt by acquisition becomes meaningfully connected to the knowledge construction process of issue-enquiry learning, and of other modes of learning in Liberal Studies.

An insightful lecture

A student of ASL Liberal Studies shares her happy experience of attending a lecture:

“Thanks to the recommendation of my Chinese Language and Culture teacher, I attended a talk by a renowned scholar on the topic of filial piety in the context of modern China. Contrary to my expectation that it would be a boring session, I enjoyed the lecture very much. The resourceful and knowledgeable speaker gave me a lot of insights. I got some important concepts and perspectives from the lecture that could link up my learning experience with the module on human relationships.”

Each of the Liberal Studies modules involves a number of key concepts – some of them from different disciplines, others inter-disciplinary. They provide useful “scaffolds” (see Section 4.4.1 on p. 105) to support students’ enquiry and to refer to in debriefings after enquiry activities (see Section 4.4.2 on p. 107).

Teachers’ direct instruction, students’ literature search and reading, are effective and efficient means to acquire knowledge and facts, while personal construction and interpersonal interaction help to deepen understanding and build up a holistic view of the issues concerned.

Different means to gain knowledge

Below are some views of ASL Liberal Studies students collected from interviews:

Searching for more information

- “If we only listen to lectures, it is a kind of passive learning ... but if we are asked to do a project, we are motivated to search for more information ... In the process of searching and organising the information, we’ve already got to know more about the topic.”

Two-way communication

- “When the teacher talks about a current issue, I am interested in finding out more about it. So, I check it up in the newspapers and browse on the Internet to find more information and views on the topic. Then I can have a two-way communication with the teacher, not just passively accepting everything I’m told.”

The original interview can be accessed in the Web-based Resource Platform for Liberal Studies. Please refer to the link <http://ls.edb.hkedcity.net>, select the language, choose “Learning and Teaching”, and then “Exemplar”.

The place of generic skills and thinking tools

Students develop higher-order thinking skills through the eight KLAs and holistic learning experiences in basic education. Liberal Studies continues to provide the context for integrative application of generic skills to help build knowledge through the learning and teaching process.

A variety of approaches should be adopted for the development of generic skills, depending on the students’ stage of development and the objectives of a specific lesson. Teachers may choose to make use of mental tools (e.g. mind maps, thinking models) to promote students’ thinking; or they may develop students’ abilities through applying generic skills to tasks (e.g. problem-solving tasks, creative processes). In some cases, teachers can help students to master a skill by splitting it into sub-skills and practising them one by one in similar or different contexts; and in other cases, they may adopt a holistic approach and see skills development as a general process of capacity-building.

Different approaches to developing generic skills

An ASL Liberal Studies teacher gives some examples of how students' generic skills can be fostered in Liberal Studies.

- **IT skills:** Students have many chances to search for materials from the Internet, exchange ideas on a web forum and present ideas using presentation software.
- **Study skills:** In exploring an issue, students learn to search for materials from various sources, and then digest and organise them. The students need to monitor their own progress and make decisions regarding their own study.
- **Collaboration and communication skills:** Students participate in various activities such as group discussion, debate and role-play.
- **Creativity:** Liberal Studies can accommodate different ideas and viewpoints and this can help to foster students' creativity.
- **Problem-solving skills:** Students are asked to write responses to different government consultation documents. To do this they have to understand the issues involved and then offer some practical and feasible suggestions.

The place of values and values education

Liberal Studies contributes to achieving the educational goal of whole person development and the nurturing of informed and responsible citizens. The curriculum helps students to develop understanding of important human concerns by choosing content which is relevant to their lives but which may also involve diverse and conflicting values. Students have to discern and appreciate the views and values held by others and to develop their own system of values for guiding their reflections, judgments and decisions.

Imparting values directly to students often fails to achieve its purpose. A more desirable method is to help students to tease out the values behind particular perspectives and enable them to make their own choices based on a clarification and reflection of their own values.

Controversy about teacher neutrality

Whether the teachers should exert a controlling influence on students' value judgments is a highly debatable issue. Some consider that teachers should remain neutral during class discussion of controversial issues – that is, they should abstain from disclosing their personal stance on issues, to avoid influencing students by giving an “authoritative” view. Others argue against complete teacher neutrality. They suggest that the teacher, at some point in the discussion, should make his or her own position explicit and open for students to challenge.

Nobody, however, questions the potential positive impact on students of teachers' good role-modelling of positive values and attitudes. When a teacher demonstrates respect for diversity and tolerance of differences, the students may see this as the appropriate way to respect others, and may then internalise the value. Teachers could also demonstrate the positive attitude in contributing to the well-being of society by sharing how their own experiences, such as how community service in school days have shaped their attitude towards life and career.

4.2 Guiding Principles

The guiding principles for effective learning and teaching in Liberal Studies are outlined below.

- **Building on strengths:** The strengths and particular characteristics of local students and teachers should be acknowledged and treasured. In Hong Kong classrooms, we see many positive characteristics among Chinese students (such as the attribution of academic success to effort and the social nature of achievement motivation) and among teachers (the strong emphasis placed on subject disciplines and moral responsibility).
- **Acknowledging prior knowledge and experience:** The learning activities should be planned with the prior knowledge and experience of students in mind. Teachers may need to devise ways of finding out what students know and have experienced before the study of a module or issue.

- **Understanding the learning targets:** Each learning activity should be designed with learning targets which are clear to both the teacher and the students. Flexibility should also be given to cater for contingent needs, encourage students' personal construction of knowledge, and to accommodate unintended learning outcomes.
- **Teaching for understanding:** The pedagogies chosen should aim at enabling students to act and think flexibly with what they know.
- **Teaching for independent learning:** Generic skills and the ability to reflect and think critically should be nurtured through an effective choice of learning activities. Students should be encouraged to take responsibility for their own learning. They are expected to articulate what has or has not been learnt, and what could be done to learn better.
- **Enhancing motivation:** Effective learning takes place only when students are motivated to learn. Motivation strategies should be used to arouse the interest of students.
- **Effective use of resources:** A variety of teaching resources should be employed as tools for learning.
- **Maximising engagement:** In conducting learning activities, it is important for all students to be on-task and focused on their learning.
- **Aligning assessment with learning and teaching:** Feedback and assessment should be used as an integral part of learning and teaching.
- **Catering for learner diversity:** Students have different characteristics and strengths. Teachers should employ a range of appropriate strategies to cater for such learner diversity, for example by trying to build up a learning community in which students of varied ability support each other's learning.

4.3 Approaches and Strategies

The issue-enquiry approach adopted in Liberal Studies guides both the selection of content and the pedagogy for the curriculum. The learning and teaching of Liberal Studies is structured around enquiry into a range of **contemporary and perennial issues**. Students

should be helped to appreciate the changing, complex and controversial nature of these issues. As students explore such issues, they may bring in their own experiences and have access to first-hand information. Students need to learn to see issues and information from a variety of perspectives and evaluate different points of view.

The issue-enquiry approach in Liberal Studies can be complemented by the use of **direct instruction**. In fact, the subject requires a variety of pedagogies, ranging from direct instruction to personal enquiry. The following sections elaborate on the issue-enquiry approach, and discuss how to choose appropriate strategies for different purposes in learning and teaching the subject. The suggestions are by no means the only strategies for teaching the topics specified in the examples. A variety of teaching strategies can be used to suit the needs of students with different abilities and learning styles. Also, it should be noted that students will achieve multiple learning targets during the same learning process.

4.3.1 Issue-enquiry and multiple perspectives

Figure 4.1 shows the processes involved in conducting an issue-enquiry in Liberal Studies, and how these processes are relevant to the development of multiple perspectives. An issue, by definition, allows for different points of view, representing different values and interests (i.e. part [II] in the figure). A fair appraisal of the different claims is not possible if one is uninformed about the relevant facts and phenomena, or if one lacks appropriate tools for analysis (i.e. part [I]). The enquiry does not end with outlining the differences or understanding the controversies. The teacher should guide the students to make reasoned judgments and take action for the betterment of society (i.e. part [III]), or to connect the perspectives to make balanced decisions, rather than remain merely “critical” in a negative way.

Issue-enquiry is not aimed at developing a detached understanding of issues, but at making practical judgments. The quality of any practical judgment depends upon the extent to which it takes into account both the facts and the different interpretations of their practical significance and meaning. Moreover, part of the issue-enquiry process involves providing students with opportunities to test their judgment by choosing a course of action and evaluating its consequences for themselves and others, which may in turn lead to a revised judgment. This implies that students construct their practical knowledge via a dual process in which they both develop their understanding of issues and test this understanding in action.

Processes	Relationship with development of multiple perspectives
<p style="text-align: center;">[I] Mastering the facts, understanding the phenomena, clarifying the concepts</p>	<ul style="list-style-type: none"> • Different sources of information • Different ways of collecting data • Different interpretations and explanations • Different associations • ...
<p style="text-align: center;">[II] Understanding the differences and conflicts involved</p>	<ul style="list-style-type: none"> • Different values • Different interests • Different convictions • ...
<p style="text-align: center;">[III] Reflection, evaluation, judgment, solution, action</p>	<ul style="list-style-type: none"> • Considering all sides of the argument • Weighing the pros and cons • Putting forward reasons and justifications • Taking action, evaluating and accepting consequences • Revising judgment • ...

Figure 4.1 Process of Issue-enquiry and the Development of Multiple Perspectives

Figure 4.1 emphasises the development of multiple perspectives throughout the entire issue-enquiry process. The learner will be able not only to discern “subjective” views and opinions held by different parties in the light of their backgrounds and values, but also to evaluate critically and interpret “objective” information and knowledge. In forming their own conceptions of the issues involved, learners will see the need to consider the pros and cons of the arguments, and be aware of the limitations in, and alternatives to, the positions they have chosen.

The three parts in the figure are **not discrete or linear steps in the enquiry process**. They intertwine and feed on one another. As learners gather more information on an issue, fresh conflicts and controversies may appear; as they try to sort out the different conflicts, further information may be needed and new concepts may emerge; and as they reflect on the learning process and evaluate the results of the enquiry, new issues and problems may arise which require the collection and analysis of additional information. Therefore, at the end of the enquiry process, a learner might have more questions than answers, but would have a richer and deeper understanding of the issues involved.

4.3.2 Systematic examination of an issue

An example of a common way for students to examine an issue systematically is outlined in Figure 4.2. The arrows indicate a logical procedure; and the feedback loops show that when the work on a particular step is found to be inadequate, returning to a previous step(s) is necessary. Examples of learning and teaching strategies involving an intertwining of enquiry and direct instruction approaches for the steps are listed on the right-hand side. The process starts with student exploration, not direct input from the teacher. The advantage of this particular approach is that it enhances students' ownership of the enquiry by engaging them in exploring their own ideas before the teacher introduces new information.

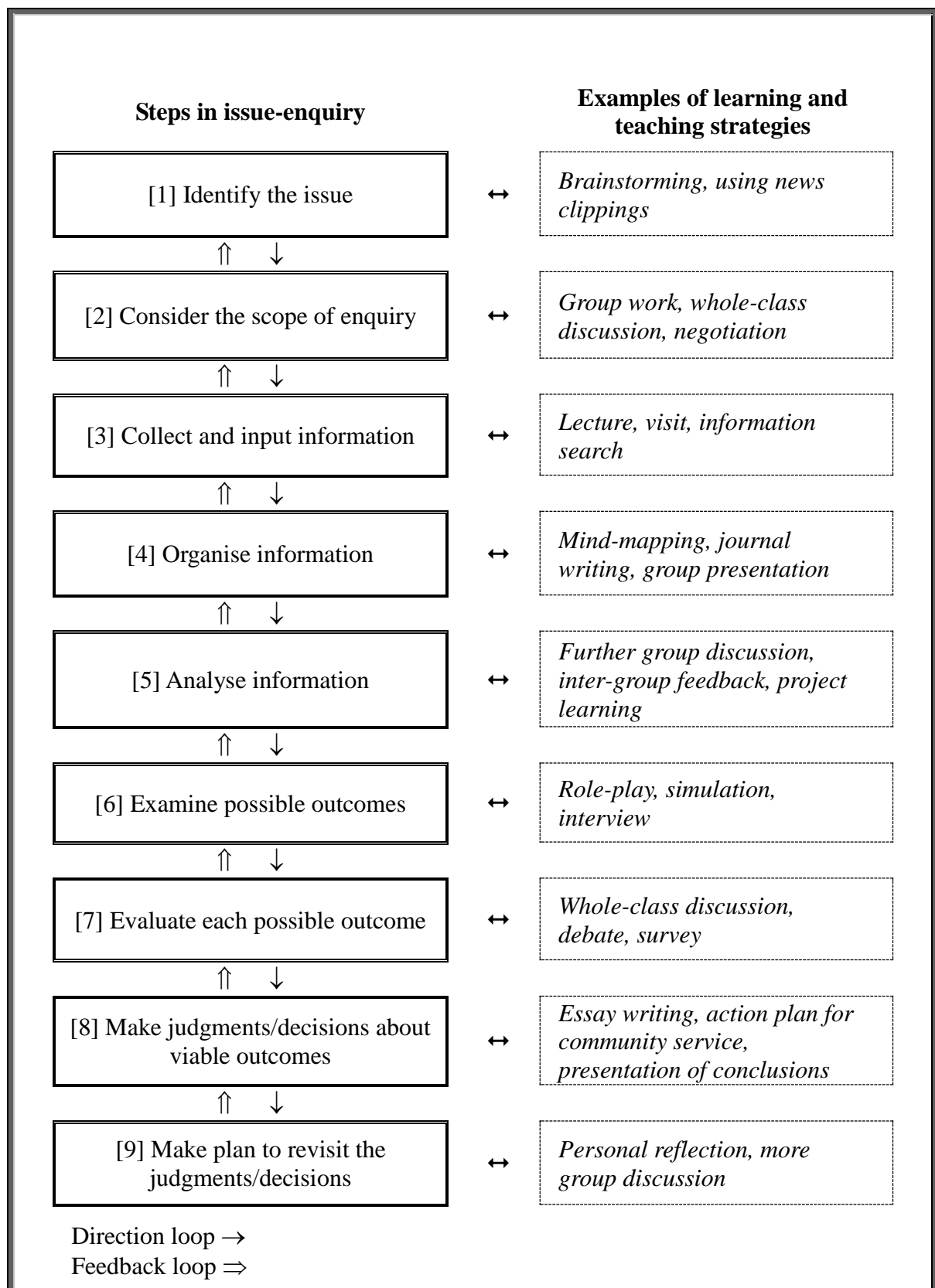


Figure 4.2 An Example of Systematic Examination of an Issue

The above pathway is not the only model for the issue-enquiry process. Depending on the nature of the issue, there can be considerable variation in the steps involved, the choice of strategies and their sequence. As data and information continue to emerge during the enquiry process, the learner may encounter new questions and have to use a variety of skills according to the circumstances revealed by the new information.

4.3.3 Choosing appropriate strategies: fitness for purpose

In choosing learning and teaching strategies, a teacher should take into account the stage reached in the enquiry as well as the students' prior knowledge, learning styles and abilities. A variety of learning and teaching activities, such as direct instruction, enquiry activities and interactive activities, can be deployed to meet the objectives of individual lessons and the needs of students. The most important guideline for choosing suitable strategies is "fitness for purpose".

Given the wide range of pedagogical aims that are pursued in a Liberal Studies classroom, there is no single pedagogical approach that can fit all the requirements. Figure 4.3 shows the basic framework of learning and teaching adopted in the three-year senior secondary curriculum. It shows the spectrum of pedagogical approaches available for different purposes. Illustrative examples related to the different points A to E in the spectrum are described later in the chapter.

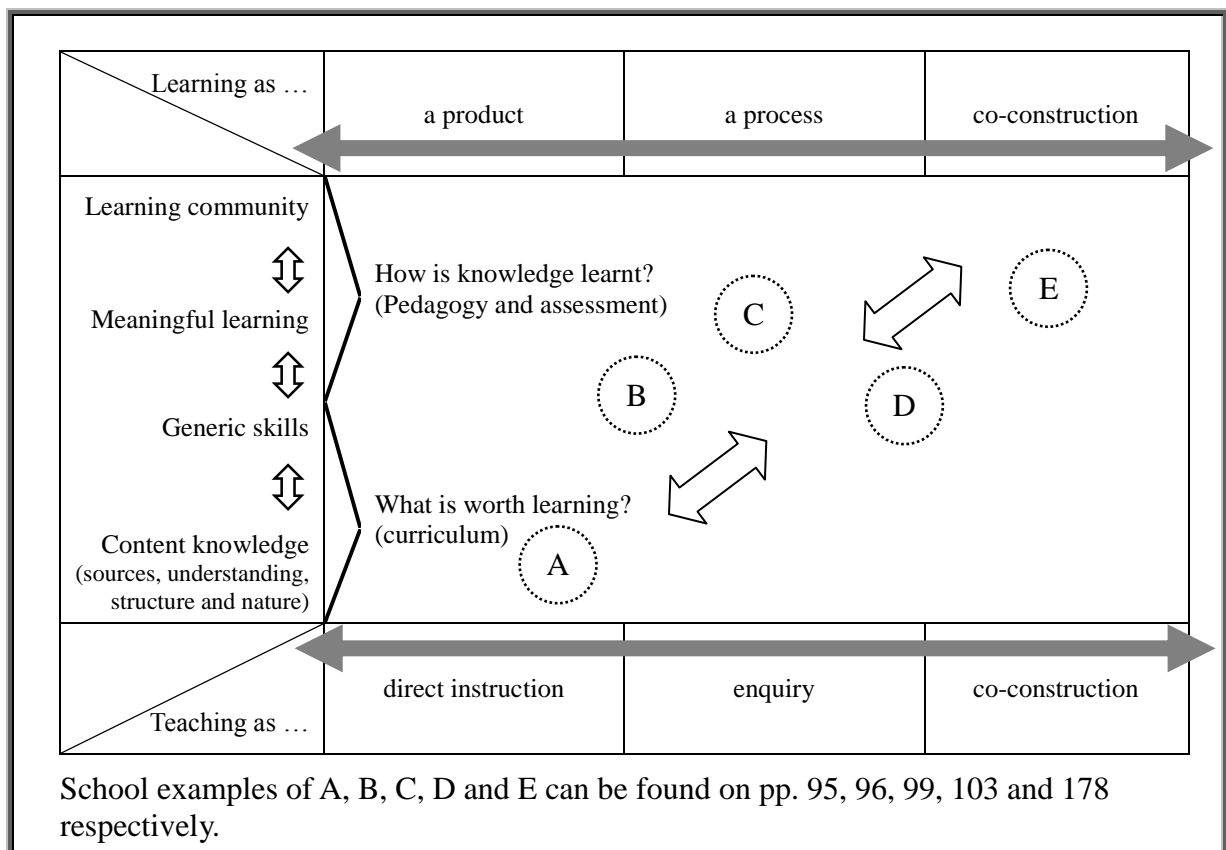


Figure 4.3 Approaches to Learning and Teaching

There are many **strengths** in our teaching and learning practices in Hong Kong classrooms. Teachers should build on these strengths to widen their repertoire of teaching strategies and apply them **appropriately** in accordance with the contexts and aims. It is important to note that teachers should not **indiscriminately** abandon all established strategies to accommodate new ones.

Please visit the Web-based Resource Platform for Liberal Studies for several examples of the learning and teaching of ASL Liberal Studies, IH (S4–5) and S&T (S4–5). (Refer to the link <http://ls.edb.hkedcity.net>, select the language, choose “Learning and Teaching”, and then “Exemplar”.)

Direct instruction by the teachers

As noted earlier, the emphasis on issue-enquiry in Liberal Studies does not reject the use of direct instruction. The use of direct instruction for transmitting concepts or facts can be an efficient and effective way of equipping students with the necessary content knowledge and procedural skills. In fact, numerous international studies have highlighted the positive effects of whole-class teaching on student learning and achievement among Asian students. Provided that students engage with what is being said, a brief lecture can help students to understand the background of an issue, relevant theories and facts in a short time; and a good video can convey powerful messages and rich information through detailed research and a vivid presentation. Both can be used to support enquiry activities in Liberal Studies before students explore issues. Other direct instruction strategies include teachers' demonstration of certain skills, and assigning readings for students.

Teachers can also use direct instruction in the form of feedback to rectify factual and conceptual misunderstandings evident in discussion or the enquiry learning process, or to attend to individual learners' problems and needs. Direct instruction can also be alternated with teacher-student discussions or students' group discussions. Teachers can explore which options work best for their students through collaborative action research.

In direct instruction, classroom interaction is primarily teacher-directed. This allows more control over the aims, content, organisation, pace and direction of lessons. However, students can be invited to raise questions about the content and discuss them at points that encourage critical thinking. Teachers must allow sufficient time for discussion-based enquiry in a Liberal Studies classroom.

Effective use of direct instruction

For the module on Human Relationships, an experienced Liberal Studies teacher chose to spend some lesson time on Erik Erikson's theory of the eight stages of human development, which provides a perspective for understanding concepts such as identity formation and identity diffusion. Direct instruction on this theory was adopted for the following reasons:

- **Accuracy:** For complex theories such as Erikson's, it is better for the teachers to summarise the key ideas for the students, so that they can grasp the essential elements of the theory and avoid misunderstanding and misinterpretation. This is

especially important when subsequent enquiry on the issue draws on this theory.

- **Accessibility:** Erikson's original articles are not written with secondary school students as target readers and so will be difficult for them to comprehend. Through direct instruction, the teacher may moderate the content to a level comprehensible to the students.
- **Efficiency:** Through direct instruction, students can grasp the main ideas of Erikson's complex theory in a short time.

It should be noted that the teacher supplemented direct instruction with further discussion activities and coursework to check their understanding of the theory and their ability to apply it to enquiry about the issues involved.

This example illustrates point A in Figure 4.3 on p. 94.

Enquiry by the students

Teachers should act as facilitators of learning and maximise the opportunities for students to practise their learning to learn skills in collecting information, searching for different viewpoints and exploring differences in the values involved. Students should be encouraged to initiate independent enquiries of a different scale relevant to the curriculum under the guidance of teachers. For example, teachers may recommend sources of information or ask pertinent questions designed to help in the collection of information.

Besides the requirement for an IES, the teacher may assign other smaller enquiry study tasks to students on different themes or modules. Through these tasks, students develop the skills and dispositions of an independent learner, and construct personalised and contextualised knowledge relevant to the modules.

Surprise at the feedback to an enquiry study on the Internet

An IH (S4–5) teacher in SKH Chan Young Secondary School described his experience in teaching the topic “Development of Modern China”. Having presented some background information on the module, he asked the students to set a question on an issue of interest to them, post it to *xinhuanet.com* (a portal website hosted by Xinhua

News Agency), and report to the teacher on any feedback they might receive. The purpose was to check students' initial understanding and their areas of interest in the module. It turned out that the activity revealed a lot more than expected.

The active responses and lengthy replies from web-surfers on the mainland surprised the students. They learnt a lot from these replies, though some students obtained more useful information than others. The teacher grasped the opportunity to discuss with the class how to set questions that could elicit useful information, as well as the skills for handling information obtained from the Internet.

In fact, these online replies provided the students with a good basis for later studies. They had a stronger sense of ownership because they were able to study information and materials that they had obtained themselves. They read eagerly and shared what they had learnt with their classmates. Their horizons were widened through interacting with web-surfers on the mainland. They changed their views about people on the mainland, finding that, contrary to the way in which they are often portrayed in the media, many of them to be knowledgeable and open-minded.

The teacher considered the activity very time- and cost-effective, because it helped to develop valuable skills such as setting good questions, and searching for and selecting information. He will consider conducting similar activities in other modules.

This example illustrates point B in Figure 4.3 on p. 94.

Teachers often employ strategies to help students to work together and learn from one another, so that they combine their efforts to achieve outcomes they could not achieve on their own. **Group discussion** and **role-play** are two commonly employed strategies in classrooms interaction and dialogue.

When students are engaged in **group discussion**, they learn through actively formulating and communicating their opinions with their peers. Such discussion also provides an opportunity for them to learn to see things from others' viewpoints and to be challenged by them. Teachers may promote successful group discussion by assigning clear tasks for the groups to accomplish, providing appropriate materials for discussion, and allocating specific roles (e.g. convenor, recorder, observer, etc.) to group members. Students learn that

effective communication skills and respect for others are important in determining whether group discussion turns out to be a fruitful learning experience or not. (See also Chapter 3, p.69, on preparing students for group discussion during curriculum planning.)

Role-play is an effective strategy for engaging students with controversial issues, in which various parties have different interests and views. By playing roles that are remote from their own personal experience, students learn to expand their understandings of others. They learn to experience the possible feelings, emotions and reactions of other parties, and thus learn to develop empathetic understanding of others' views and values. Such understanding is deepened by including contrasting views in discussion and debates so that a comparative perspective can be formed.

Exemplars of a role-play activity for ASL Liberal Studies and a group discussion for IH (S4–5) are described in Appendices 8 and 9 on p. 167 and p. 169 respectively.

Strategies such as group discussion and role-play, if effectively employed, are consistent with the notion of learning as a process of knowledge construction. They highlight the idea that knowledge can be effectively built through collaboration. The understanding thus constructed is subject to the experiences and insights of the group members and the contexts in which the discussion and role-play take place. Students also learn to develop important interpersonal skills through these interactive activities.

In order to promote effective enquiry, teachers may conduct activities to relate students' prior knowledge and relevant experience to the issues to be explored. A brief brainstorming session may suffice to prompt students' initial views and concepts about the topic of enquiry; and teachers may also wish to find out how far students have progressed after an enquiry by asking them to draw concept maps to represent their knowledge of the topic.

Other effective learning and teaching strategies for issue-enquiry will be proposed in the Web-based Resource Platform for Liberal Studies (<http://ls.edb.hkedcity.net>). Teachers' professional judgment will be needed in selecting an appropriate mix of strategies and conducting them in a way which motivates students to be autonomous learners, and provides support for the knowledge construction process.

Extended activities and assignments

Having gone through a variety of learning activities, students may have been exposed to a number of views, concepts, principles and questions relating to the issue or theme they are studying. However, they still have to reflect on them and organise what they have learnt so that they have a coherent understanding of the issue in question. Teachers may arrange some extended activities or homework, such as writing up summaries or reports, so that students connect the learning experiences and arrive at their own personal viewpoints. Appendix 10 on p. 171 gives an example of a student's work in the form of a concept map summarising the learning of a topic in IH (S4–5).

The careful planning of an assignment

A teacher in SKH Chan Young Secondary School assigned a newspaper commentary task to students to allow them to draw on and apply what they had learnt in the context of daily life. This task was also designed to enhance students' interest in writing. The teacher planned the implementation of the task in the following stages throughout the school year to guide students to achieve the aims:

Stage 1 – The students were asked to choose a news article on any topic that interested them, and to write a commentary on it of any length.

Stage 2 – They were asked to select a news article relevant to the module they were studying, and to write a commentary on it of any length.

Stage 3 – They were again asked to select a news article relevant to the module they were studying, but in this case they had to draw on what they had learnt and apply their learning to commenting on selected issues. Guidelines on writing the commentary were given to support the students in their writing.

This example illustrates point C in Figure 4.3 on p. 94.

4.3.4 Reading to learn

To develop the habit of reading independently is one of the goals of the school curriculum. “Reading to learn” is also one of the four key tasks recommended by the CDC (2001) to help students develop independent learning capabilities within and across KLAs.

The skills of “Reading to Learn” enhance students’ overall capacity for lifelong learning and whole person development. More specifically, they are important in Liberal Studies in the following ways:

- They enable students to develop their thinking skills through understanding and constructing meaning from what they read.
- They cultivate an openness of mind towards different opinions, ideas, values and cultures.
- They enrich students’ knowledge and broaden their understanding of life, which helps them to face challenges.

The effective implementation of “Reading to Learn” in a school requires a concerted effort by the school head, curriculum leaders, the teacher-librarian and teachers of different subject panels. An example of how the teacher-librarian can help a school to prepare for Senior Secondary Liberal Studies is given in Chapter 3 on p. 81. Please also read *Reading to Learn*, Booklet 3C in *Basic Education Curriculum Guide Series* (CDC, 2002) for more information about implementing “Reading to Learn” in the school curriculum.

As an interdisciplinary subject connecting learning experiences, Liberal Studies provides an ideal platform for encouraging reading across the curriculum at the senior secondary level. Teachers of Liberal Studies should encourage students to explore knowledge in different domains and update themselves on current issues through extensive reading of books, journals, newspapers and online materials. Teachers may also help to promote “Reading to Learn” in a number of ways, including: designing lessons in which reading plays a significant part; providing opportunities for students to use different reading strategies; making relevant reading materials available; personal sharing of good books and articles; and modelling as widely-read learners.

4.3.5 Learning outside the classroom

Teachers should explore the opportunities for students to learn in real contexts and authentic settings. Such experiential learning enables them to achieve certain learning goals that are difficult to attain through classroom learning alone. Life-wide learning opportunities are especially important for Liberal Studies, because the subject is concerned with real human concerns in contemporary society.

Museums, libraries, government departments, public institutions and NGOs are all potential sources of information for studying issues in the Liberal Studies curriculum. There are also organisations which are willing to support learners in various ways, e.g. by providing updated information, producing curriculum resources, offering service learning opportunities and organising talks and visits.

In fact, opportunities for learning exist everywhere in the community. With instruction and guidance from their teachers, students can explore the community through observations, surveys, interviews and various forms of fieldwork. To broaden students' perspectives, schools can also make use of their own strengths and connections to arrange cross-border exchange programmes or visits. An example of how a mainland study tour was linked to an ASL Liberal Studies module "China Today" and also project work can be found in Appendix 11 on p. 172.

4.3.6 Catering for learner diversity

Learner diversity exists in every classroom. Some suggestions on how to select learning targets and organise the contents and issues to cater for students' varied needs, as well as how to realise the potential benefits arising from diversity, have been raised in relation to curriculum planning in Chapter 3.

Catering for students with lower abilities

In catering for the educational needs of students of lower ability, teachers should adopt a holistic approach rather than just focusing on their learning problems. Also, teachers' expectations as to the potential learning outcomes of such students' should be reasonable. In helping them to maximise their learning and make progress, it is crucial to build up their confidence and raise their self-esteem.

Maximising the learning of students with learning difficulties

An IH (S4–5) teacher described his experiences in catering for the learning needs of his students, most of whom have low motivation and learning difficulties such as dyslexia. He found that the following strategies improved their learning and motivation.

- Identifying the strengths and limitations of his students, and the factors underlying their learning problems, before they start to study the subject, to enable him to adopt appropriate strategies to help each student learn.
- Modifying the curriculum plan to cater for his students' educational needs
- Spending most of the lesson time in activity-based learning such as group discussions, role-plays and simulation games. The variety in activity design and instructional methods involves students in learning by doing, and students are kept interested.
- Adapting or rewriting materials to fit students' reading ability.
- Employing multimedia and interactive learning materials to provide rich sensory stimuli and enhance the active participation of students. For instance, the teacher uses popular songs and recent local TV series to start discussion on "local consciousness and identity" with his students.
- Assigning small and simple tasks as homework, and allowing students to hand in their work in non-written formats, including videotapes and drawings.
- Setting tests and examination papers at different levels of difficulty to avoid student frustration in assessment and enhancing their intrinsic motivation.
- Encouraging students to value their various achievements and recognise their progress, even though they may not excel in academic pursuits.

Enhancing the learning of students with higher ability

For students with higher ability or potential, teachers should devise challenging learning opportunities to address their educational needs and develop their capabilities further. For these students, it is important to ensure that the curriculum does not repeat what they already know, and allows more time for extended work and independent study (e.g. an extended project on a specific theme of high personal interest). They can also be exposed to

more demanding tasks with more challenging learning objectives, and be given more focused teacher attention. Finally, they may be grouped together to work on specially challenging tasks or worksheets.

Special roles for students with higher ability

A Liberal Studies teacher in a girls' school, which adopts English as the MOI, considers it important to provide opportunities for more able students to build on their strengths. She identifies students who are outstanding in various respects and encourages them to take on special roles in group learning activities. She strategically arranges students in groups of varied ability so that they can help each other to achieve common goals.

During the interactive learning activities, students with good communication skills take an active role in stimulating other classmates to engage in tasks, giving immediate feedback to group members and presenting the work of the group. Students with collaborative skills are encouraged to lead group discussions, motivate group members to participate, and coordinate discussions to arrive at conclusions. Students with critical thinking skills deal with the accuracy of given statements and the formulation of sound arguments; at times, they will challenge the discussion points raised and comment on classmates' views.

Through taking up special roles in peer learning, the most able students are exposed to more demanding and challenging tasks relevant to their potential; and their contributions also benefit other members of lower ability. Also, the personal-social competence of these students is enhanced when they succeed in fostering positive group co-operation and interaction in the classroom.

This example illustrates point D in Figure 4.3 on p. 94.

Catering for students with emotional problems

Students' emotional state has an impact on their learning. Individual students' emotional problems may need to be catered for at a more personal level with coordinated support from the school and the family. The Liberal Studies curriculum provides many chances for

students to reflect on their own personal development and identity. The study area “Self and Personal Development” is especially relevant to these aspects of students’ lives and may contribute positively to their emotional and social development.

Students can be helped to explore their emotional difficulties indirectly by discussing issues presented in an impersonal medium such as poems, drama or films. However, care should be taken when considering issues that may trigger an intense emotional response from students. In general, in Liberal Studies, the personal matters of members of the class should not be the subject of discussion. Teachers should help students to protect their own privacy and respect that of others. Any discriminatory remarks about family background, gender, physical appearance, disability, or any aspect of performance, should be avoided at all times.

If the teacher deems it appropriate, study of “Self and Personal Development”, which deals with issues at a personal level, can be scheduled at a later time in the school year when classmates have come to know one another better and trusting peer relationships have been developed.

Advice on teaching students with emotional problems

A teacher in Chi Lin Buddhist Secondary School shared her experience of teaching “Self and Personal Development” to students with emotional disturbances and behavioural disorders.

According to the teacher, it is vital to provide a positive, stable and warm learning environment for students to develop confidence and friendships. She sets up class codes of behaviour which guide the students to express their emotions appropriately, and she reinforces them in their daily classroom interactions. She also spends time on listening to her students, especially those who show signs of serious emotional disturbance and self-harm. She talks with them about their concerns and identifies their learning problems.

When the teacher discusses issues related to self-development and interpersonal relationships in class, she arranges self-reflection activities and provides opportunities for her students to talk about their experiences. She reminds them to respect other people’s privacy and observe confidentiality. She also gives them the schedule for the coming lessons, so that they can be psychologically prepared for any issues which may

embarrass them and can decide whether or not to share their personal opinions or feelings on them.

She also advises that appropriate individual counselling or referral is necessary if teachers detect any symptoms of emotional disturbance or self-harm behaviour in their students.

4.4 Interaction

4.4.1 The roles and interactions of students and teachers

In making an enquiry, the learner bears the major responsibility for learning. However, given the limited level of experience, knowledge and skills that they possess, students will encounter hurdles as they start out on their learning journey. In a general sense, what teachers need to do is to facilitate student learning by providing **scaffolds**. They should help their students by breaking down challenging learning tasks into manageable “chunks” and by indicating possible directions and means. Overall, the students remain responsible for their learning, but the teachers make it possible for students to fulfil their objectives. Assistance from the teachers should fade as the learners’ competence increases, so that over time the control of learning is shifted to the students. In this way, the role of teacher in the enquiry process changes from their being a facilitator to being an equal member of the learning community. Students will thus be enabled to form their own beliefs on the basis of independent reasoning rather than resorting to the views of an authority figure.

When students are quiet, a “tug-of-war” begins

The following situation happens in many classrooms. The teacher poses an open-ended question which invites students to exercise higher-order thinking and express their views in their own words, to promote further class discussion. The students put their heads down, avoiding the teacher’s gaze, and nobody says a word.

The teacher then gives more information, and interprets it in greater detail. To try to elicit responses, the teacher also rephrases the question to make it less

demanding—but the students remain silent.

The teacher then rephrases the question again and supplies further detail and interpretation—but there is still no response. This cycle continues until the teacher finally asks a low-level, closed question. A hand is raised at last, and a student gives a factual answer, or a yes-or-no response ... and the topic is closed.

Professor John Elliott, an experienced educational researcher and teacher trainer, refers to this situation as a “tug of war” between the students and the teacher. This happens most in classes where students are used to a didactic mode of teaching which does not require them to think for themselves and to risk giving wrong answers. When the teacher tries to shift into an interactive mode, the students resist by responding with silence. In this situation, teachers who have a low level of tolerance for silence in the class give in: the students win and the teacher shifts back to didactic teaching.

Professor Elliott advises teachers to be more persistent in encouraging students to respond. Sometimes students need more time to formulate answers; but sometimes their silence is simply due to adherence to the previous style of teaching and learning. If the teacher is confident that the students are able to comprehend and respond to a question, it is worth spending more time waiting for a response. When the students learn that they have to accept the responsibility to participate, they will normally start to formulate answers.

The above scenario illustrates the need for better questioning techniques. Teachers should be aware of alternative ways of rephrasing the same question without compromising the level of demand. In revising a question, teachers should bear in mind that the primary aim is not to get a correct answer from the students, but to engage them in thinking and discussing.

While students can always benefit from a knowledgeable teacher, it is neither necessary, nor likely, that teachers will have detailed knowledge of all the issues in the Liberal Studies curriculum. As stated earlier, teachers of Liberal Studies take on many roles – as facilitators, information providers, consultants and learning assessors. They support enquiry by providing access to information; they fuel the enquiring mind with timely stimulation and input; and they enrich discussion, but they do not dictate its direction.

The research literature shows that, among the many possible interventions to improve learning outcomes, **teacher feedback** has the greatest impact. Teachers should give compliments and encouragement to reinforce students' positive learning outcomes, and should provide hints or suggestions to help students discover their weaknesses and improve their work. Feedback is most helpful to students when it is specific and constructive, and when it targets particular behaviour rather than seem to criticise the person. When students get their work back from their teachers, they are often eager to read or hear comments on their strengths and weaknesses, rather than just receiving a score.

Quality feedback by teachers

A teacher in St. Antonius Girls' College shared her experience in helping students to conduct an Independent Study in S&T (S4–5) through timely feedback which addressed students' strengths and weaknesses, and prompted them to move forward in their learning. Please refer to Appendix 12 on p. 173 for details.

4.4.2 Teachers' debriefings

In Liberal Studies, students construct knowledge through diverse learning activities and interaction with a variety of materials. From individual activities, they may gain insights and new ideas, though not necessarily in an organised manner. These insights and ideas sometimes present apparently conflicting values or unrelated facts and concepts which need to be put into a proper perspective and framework to constitute real knowledge and understanding; otherwise students may become confused. Appropriate debriefings after learning activities can help students to see meanings, new perspectives and the conceptual connections across issues, to consolidate what they have learnt, and to move to the next step in learning with a clear orientation.

Debriefing after an activity can be as simple as a brief discussion to reflect on the experience and to summarise the ideas generated from it, or the request to a class to construct a concept map for the theme being discussed. (Please refer to Appendix 10 on p. 171 for a concept map drawn by a student.) Teachers can also develop a debriefing into an assessment-for-learning task, such as a reflective writing assignment for the students to construct meanings out of their learning experiences. This helps teachers to assess how successful students have been at integrating and understanding new knowledge.

The following are some hints for teachers to consider in conducting debriefings.

- Debriefings should be timely. When a debriefing follows an activity immediately, there is less chance of confusion and misunderstanding.
- Debriefings should be integrated into the schedule of work and given ample lesson time. (Please refer to the discussion of timetabling in Chapter 3, “55 minutes vs. 35 minutes”.)
- In summing up activities, teachers should make reference to students’ contributions to the activities as far as possible.
- The debriefing should provide students with a few key concepts and important perspectives, or a simple framework for understanding and organising their learning experiences.
- Other than consolidating the previous learning experiences, a debriefing may also aim at preparing students for further exploration of the topic or the next learning activity.

Quality debriefing to guide issue-enquiry

An S&T (S4–5) teacher in St. Antonius Girls’ College spent a lesson on slimming as a health issue. The lesson aimed to develop students’ ability to evaluate information and data on this issue critically. The teacher designed several learning activities for the lesson and supplemented her debriefings between the activities. Appendix 13 on p. 174 has the details.

4.5 Learning Communities

Students and teachers of Liberal Studies can contribute to building learning communities for the subject. Members of a learning community may differ in many respects, including their learning styles and abilities; and they may take different roles and share out the workload in different tasks, such as searching for information and conducting surveys. However, they all contribute to the common learning goal of the community while developing their own expertise.

4.5.1 Co-construction of knowledge in a learning community

Apart from taking the lead in fostering a sharing culture and an accepting and trusting atmosphere in a learning community, the teacher learns with the students and takes part in the co-construction of knowledge. The teacher also encourages peer learning and group work. Students come to see their teachers and classmates as partners in learning. They share their views and even their feelings in conversations about the issues they explore. Through discussion, debate and other collaborative tasks, students interact with one another and learn to appreciate and evaluate the views of others, though they do not necessarily have to reach a consensus.

4.5.2 Developing each student's potential in a learning community

A wide variety of learning and teaching activities should be designed to provide students with a variety of ways of participating in the learning community. In order to help students fulfil their potential to the full, teachers should organise learning and teaching activities in such a way that students are encouraged to go beyond the common knowledge base and seek to approach the issues in their own way, so as to generate new ideas and perspectives.

4.5.3 Building a learning community in Independent Enquiry Study (IES) grouping

As suggested in Chapter 2, teachers should arrange group learning opportunities to help students conduct their IES. Though each student will be working on a unique topic, they can still learn as a group. They can help each other by sharing information and ideas on a common theme, brainstorming ideas together and commenting on each other's proposals, methodology and progress. The teacher can organise the activity so that students have to rely on and collaborate with one another to accomplish the task.

4.5.4 Information and communication technology (ICT) and learning communities

The Internet provides a very effective means to facilitate interaction and support the building of learning communities among teachers and students. In fact, many youngsters in Hong Kong are already very familiar with communicating and networking through, for example, email, web-based instant messages and web journals ("blogs"). There are very promising possibilities in such technology for building and linking up learning communities

in Liberal Studies. However, the technology in itself will not bring about the emergence of learning communities. Teachers and students need to have shared goals and to contribute so that their interaction will help to achieve the learning goals of the community. Appendix 14 on p. 175 describes a case where personal digital assistants (PDAs) were used to facilitate the building of learning communities outside the classroom.

For more examples of learning communities, please refer to Appendices 15 and 16 on p. 176 and p. 178 respectively.

4.6 Learning and Teaching for Independent Enquiry Study (IES)

IES is an integral component in the curriculum of Liberal Studies (see Section 2.8 on p. 57). It is designed to provide a self-directed learning experience which requires students to shoulder the major responsibility of learning and demonstrate self-management skills in pursuing an investigative study on a self-chosen topic, with teachers and other peer students as partners in learning. It is suggested that 82 hours of lesson time be allotted to conduct learning and teaching activities for IES, in addition to this students will also work on their IES outside school hours.

The discussion following this paragraph focuses on some key concerns in the implementation of IES. For detailed advice and more examples, please refer to the References section on p. 185 and the Web-based Resource Platform for Liberal Studies (<http://ls.edb.hkedcity.net>). The latter also includes a list of “Friends of Liberal Studies”, which are organisations that can provide advice and resources for the learning and teaching of the subject, including IES.

4.6.1 Building on prior experiences

Senior secondary students in Hong Kong will not be novices in the conduct of an IES. Project learning has already been implemented in the basic education curriculum as a “powerful learning and teaching strategy that helps students to develop their generic skills, integrate and apply their knowledge within and across key learning areas” (see *Project Learning*, Booklet 3C in *Basic Education Curriculum Guide Series*, CDC, 2002). Students in their primary or junior secondary education have already gained experience in doing individual or group projects. Most of them may have acquired skills in selecting a project title, searching for information, data collection, data analysis, oral presentation and

compiling the final report or product. They may also have experienced the different modes of project learning (e.g. subject-based projects and interdisciplinary projects). Teachers need to find out about students' prior project learning experiences and their strengths in self-directed learning. Although the project skills practised in the junior forms may be elementary, they lay a good foundation for doing IES in the senior forms.

More advice and references on implementing project learning in the school curriculum can be found at the Curriculum Development Institute website (<http://cd1.edb.hkedcity.net/cd/projectlearning/index.html>).

4.6.2 Deciding on the title and the scope

In conducting IES, students are allowed a high degree of freedom and a wide range of choices for the topic and scope of study. They may choose a title connected to the three Areas of Study as long as that title extends to new contexts and themes of a contemporary nature and which is not directly covered in the six modules. This openness enables students to choose title which suit their abilities and interests, while it also poses a challenge to students in that they must select something manageable and are to steer their IES into a meaningful self-directed learning experience, amidst the seemingly infinite possibilities. The Themes of Enquiry for IES as suggested in this document provide options which may be feasible when students first start deliberating on their individual titles (please refer to Appendix 1 on p. 145).

Whose choice?

When HKSYPICIA Wong Tai Shan Memorial College first implemented project learning a few years ago, the teachers gave students a total free hand to select their own project titles. Many students chose titles they found interesting, but had not considered the practicality and feasibility. Topics concerning spirits, fortune-telling and horoscopes were very popular among students. However, once they really started working on such topics, they found problems in validating the data and examining the issues. As a result, many of them had difficulties in finishing the projects.

After a few years, the teachers decided to set broad areas for enquiry for them which related to their lives and to the community. Within these broad areas, students were free to choose for themselves a manageable project topic. Because the topics chosen were

familiar to them the students felt greater ownership. They were more confident in their explorations. The teachers observed that, with these themes, students are very committed to doing project and they are eager to try out a variety of ways to understand and explore issues that interest them.

Before committing to a specific IES topic, students are advised to **broaden their horizons** on the chosen theme through different means, e.g. visiting relevant institutions, attending talks or cultural activities, reading extensively. Increased exposure to the theme will give more insights for choosing an appropriate title. Students may also actively bring in their life experiences as important elements of their IES. For example, a student who actively participates in the school athletics team might consider doing an IES within the theme of Sports, and relate the study to his or her experience as an athlete in various ways.

Teachers may also encourage students to start deliberating their IES with an unfamiliar theme, and help them to develop a sense of ownership of their project through exploring the theme. Teachers may use different strategies to arouse students' concern and enhance their understanding of the theme, and then encourage students to discuss actively and guide them to formulate feasible and yet challenging questions.

Making use of past students' work

Some experienced teachers advise that looking at the past work of former students may help students to choose a topic, decide on the scope of their IES and choose an appropriate method and presentation mode. Teachers might keep good IES work from past students and place this in the archive set up in the school library for Liberal Studies. If the past studies were available in digital format, the archive could be set up in the school intranet so that students could access them at any time. A teacher also mentioned that he had supplemented the archive with relevant internet links as references to give further information on the related topic. To maintain a useful archive, new studies can be added to the collection every year, and outdated work can be removed. The reference links also need to be constantly updated.

In choosing an IES topic, students should be concerned about the **significance** of the study. In other words, students should justify the choice of title by evaluating the expected

findings. For example, a study on “My Favourite Sports” has little chance of turning into a meaningful work. The topic is too personal and trivial to have worth for others’ reference. It is also not likely that it can connect the Areas of Study. A better alternative would be “Sports and the development of self-image of teenagers in Hong Kong”. This title opens up the possibility of exploring views of different groups in society, perspectives from different disciplines, phenomena and trends in different contexts and times, etc. It has better potential in generating significant findings and insights on a broader concern. Students should aim at generating new knowledge and insights for themselves, rather than merely supplying new data and information to validate existing claims and views. Teachers should also guide students to focus their IES on a contemporary issue in an authentic context so as to match the aims of Liberal Studies curriculum.

The second factor in considering an IES topic is the **availability** of sources of reliable information. For some topics, it is difficult for an average Hong Kong secondary school student to get information, especially first-hand data. For example, if a student wanted to do a study on “The Life of a Chinese Astronaut” but could not get an interview with one, the study would inevitably have to rely on secondary sources alone. Teachers should therefore highlight the importance of getting access to an appropriate range of information before a title is finalised for an IES

Groundwork for project learning

A teacher from SKH All Saints’ Middle School suggests some ways to help students to clarify their understanding of the chosen project title for ASL Liberal Studies. He asks each student to submit a mind map on the chosen topic. To construct this mind map, students have to explore and elaborate basic knowledge and concepts related to the title. This provides the teacher with an idea of the students’ initial understandings of the titles.

The teacher also requires students to submit a reference list of at least 10 items on the chosen topic. This ensures that students have secured at least some available resources for conducting the project. The list provides the basis for the subsequent literature review.

The third factor to consider is the **manageability** of the study. Students need to consider their own resources in terms of ability, money and time with respect to the scope and

demand of the project. For example, “Economic Development in the Pearl River Delta” may be too broad a title. It would be impossible to find the time and money to visit all the major cities in the Pearl River Delta for an in-depth and meaningful investigation on the topic. Students interested in development in this region had better undertake a more focused study by narrowing the scope down to one locality within one city, or to fewer social or economic phenomena, or to a smaller group of people.

Beyond a title

To assist students to review the feasibility of their project titles, a teacher of SKH Bishop Mok Sau Tseng Secondary School designs a form to help students formulate the title and an outline of the project. Students submit this form when the deadline for deciding the title is due.

In completing the form, students have to set out the project title (research question), sub-questions, research target group(s), research methods and types of data to be collected. The teacher comments on these on the form and helps students refine their design. Sometimes, with the teacher’s help, students may be aware that the project title is too narrow to accommodate a range of perspectives, and few sub-questions and concepts can be derived. At other times, they may be aware that the types of data to be collected are not accessible using the proposed research methods. The form in fact guides students to assess their project title in a systematic way and to formulate a feasible study plan.

As a core subject for all students in the three-year senior secondary curriculum, Liberal Studies needs to be able to **cater for learner diversity**, and particularly in the IES component. The following is a discussion of some common problems that students may have in the stage of deciding the title and some suggested ways of tackling them.

Some students may provide a cluster of words to represent the concepts related to their project title but are unable to tell the relevant from the irrelevant. They may write up a list of sub-questions which point to confusion in directions and blur the focus of the study. In this case, they need guidance from the teachers to articulate their actual research interest. Through questioning, teachers guide students to narrow down their choices and select the

sub-questions relevant to the project title. Then, teachers may help students to identify the relevant key concepts of their project from the irrelevant ones.

Sometimes the project titles proposed by the students are too narrow. The teacher may help by prompting students to suggest alternatives. Students lacking prior knowledge of the chosen theme will have difficulties thinking of alternatives. Teacher can, in this case, offer some options for them to choose from. Students at this point can usually see the inadequacies of their previous design and come up with a better project title and outline.

4.6.3 Developing project skills in the context of learning the modules

Development of any skill takes place in a context. The skills used in conducting a self-directed study, like most generic skills, are however transferable across contexts. To enhance learning effectiveness and time efficiency, students' project skills in IES are best developed in the context of the learning and teaching of the modules in the three Areas of Study. The 82 hours of lesson time allocated for IES do not necessarily have to be separate from the lesson time allocated for the modules.

Incorporating research instruments into the learning and teaching of modules

A teacher of Sha Tin Methodist College suggests that the teaching of skills in selecting and employing research instruments for use in project work can be embedded in the content of a module. For example, the techniques of setting questionnaires can be taught when the class is learning about "Personal Development". The teacher designs a learning activity which involves using questionnaires to collect views on a specific issue. The teacher emphasizes that by actually using a research instrument, students can better master the skills involved and be aware of the strengths and weaknesses of such instruments in the collection of different types of data. This may help students to select and use appropriate research instruments for their IES.

4.6.4 Choice of methods and expected level of sophistication

Students should know how to use a number of methods of data collection and analysis to suit different topics and contexts. A general introduction to methods used in both the quantitative (questionnaire survey, statistics, etc.) and qualitative paradigms (interview,

observation, etc.) should be introduced to students. However, teachers should help their students to master these methods and tools at a level appropriate to their standard. For example, the statistical knowledge expected of senior secondary students should be defined by what they have learned in the Mathematics curriculum.

The questionnaire survey as a popular research tool

The questionnaire is the most commonly used tool in student projects. It allows students to collect first hand data from a group of respondents. Since the possible responses have been confined to the options offered by the questionnaire setter, collation and analysis of data are comparatively easy.

On the other hand, questionnaires, like all research tools, have their limitations. For example, the sampling method and the sample size of respondents may greatly affect the reliability and validity of the survey. The way questions are written will influence the findings of the survey. The options provided for each question may be biased towards the setter's way of seeing things. All these deficiencies are likely to be significantly amplified in the case of a student project. Students may lack the connections and resources to get a good sample of subjects, and they may also lack the analytical power to design a good questionnaire and to analyse the resulting data. This realisation, unfortunately, often only comes at the stage of an IES when the student is up against facing an imminent deadline for the submission of a final report.

Thus, students should be made aware of the limitations of questionnaires and be cautious about the findings generated from them. Students should also be encouraged to consider alternative methods to suit different situations and to produce different kinds of data on the same topic. This helps students to see things from different perspectives and allows the findings from one method to be checked against the findings from another. Qualitative methods such as different kinds of interview and field observation may be considered for achieving a more comprehensive research design and obtaining a richer set of data.

4.6.5 Analysing the data

Through their experience with project learning in basic education, students have been equipped with elementary skills in handling various forms of data, such as drawing generalisations from statistical data and summarising views from interviews. They should continue to strengthen these skills and learn to construct knowledge out of the first-hand data they collect themselves.

Digging deeper into the data

Sometimes students succeed in collecting a good pool of data, but get no further than a superficial description of trends or patterns, failing to make the best use of the data. Not wanting to “waste” the data, teachers are often tempted to share their own interpretations of the data. This would defeat the purpose of encouraging students’ self-directed learning through IES. A more appropriate way would be to guide students to explore alternative frameworks for analysis so that richer meanings can be revealed by the data themselves and become students’ own findings.

A teacher from SKH St Benedict’s School shares a case in which a student presented an analysis of a data pool by grouping the data according to the gender dimension. Seeing that the data had much more to reveal than could be discovered through this uni-dimensional analysis, the teacher prompted the student to explore other possible dimensions for analysis, and gave “age” as an example. Through expanding the framework for the data analysis, the student constructed richer meanings from the same set of data.

The example shows that in helping the student to make the best use of the data, the teacher does not substitute his interpretation of the data for the student’s work, but, instead, suggests examples or provides guiding questions to encourage the student to dig deeper into the data and discover insights themselves.

4.6.6 Variety of modes of presentation

Students do not have to rely solely on the textual medium to record and present their IES. Students can incorporate different presentation formats into their IES reports for clearer

communication of ideas. For example, charts and graphs are good tools to help readers visualise trends and patterns in quantitative data. Pictorial representation such as concept maps can help explain the interrelationships among abstract ideas or concrete entities such as people and organisations.

Students can opt for alternative formats to present their findings in lieu of the conventional written research report. Model making is one example of what an IES might generate as an end product. Thanks to the popularisation of digital media and internet technology, nowadays students can easily produce audio-visual clippings and construct web sites. Allowing a variety of presentation modes to suit the different needs, orientations and abilities of students also allows room for developing their creativity.

Teachers may encourage students to explore a wide range of formats and media by exposing them to different media presentations, or providing suitable training. However, students should be reminded that the choice of format should serve the primary purpose of communicating the content knowledge. Fancy packaging and meaningless audio-visual effects should be discouraged. It is the quality of the study process and its outcomes that will count when assessing IES work.

4.6.7 Fostering learner independence

IES is an opportunity for students to learn to plan and manage their own learning. Yet, as teenagers, their ability to work independently is unlikely to be fully developed. The most capable students are still likely to seek and need advice from teachers; while students at the other end of the ability spectrum tend to need much closer guidance.

Given the classroom contexts in Hong Kong secondary schools, tutoring and monitoring of IES on the basis of individual students is likely to prove rather time-consuming on the part of teachers. There are other strategies, however, for fostering learner independence that can be used to supplement some individual tutoring. For example, teachers may set a clear work schedule for IES for the whole class and specify “check points” for different stages of work. By aligning the progress of individual projects with common “check points”, teachers can address common problems in group teaching time, or communicate with students through commenting on their drafts submitted in different phases, thus reserving face-to-face sessions to special needs and to individual problems.

Sustaining students' work

Students of low motivation may lack patience and perseverance. They often have difficulties in finishing an extensive piece of work or completing a task that extends over a period of time.

An experienced Liberal Studies teacher advises that, to help such students to complete an independent study, teachers can try breaking it into small tasks spreading over a period of time, and asking students to complete them one by one. These small tasks are usually well focused and easier to manage, so that students are more willing to engage in the work.

Sometimes, for students who refuse to do any work, the teacher may appeal for the parents' support so that the overall learning behaviour of the student can be improved.

Teachers should help students to take up the major responsibility for the progress of their own IES, and advise them not to expect teachers to do the work for them. Teachers should be aware of the distinction between giving guidance to students and doing the work for them. There is little point in a teacher assessing his or her own work.

The dual role of teacher as assessor and facilitator

In IES, teachers play the role of facilitator by giving appropriate guidance to students. They should not intervene too much by placing rigid restrictions on the choice of direction for an investigation, or by deciding the structure and format of a report. Although the intention is to help students to conduct the study, teachers may end up taking away the opportunity for them to develop self-directed learning skills and impede their development of creativity. Over-supervision contradicts one the objectives of IES, which is to foster students' independent learning.

Teachers should strike a balance between the role of facilitator and that of an assessor. Teachers facilitate students' work by regular monitoring of the learning process, probing students' thinking and giving supportive feedback. In general, teachers should help students to reflect and to evaluate their own work and form their own judgments. It is

crucial for teachers to have a clear set of assessment criteria, and to maintain fairness throughout the assessment process. Teachers may also introduce suitable strategies for peer learning and peer assessment, so that students may get constructive feedback and support from one another.

For students who seem to be taking a problematic route which the teacher thinks may ultimately become unproductive, teachers need to steer them in a better direction by asking them some procedural questions, such as what evidence would be needed to substantiate their conclusions. In this way, students come to realise for themselves the problems they face, and then formulate their own decisions as to what to do.

Since IES is required for School-based Assessment (SBA) in this subject and contributes towards the student's final achievement in public assessment, the issue of the authenticity of the IES is an important public concern. In assessing students' work, teachers need to be able to identify students' own efforts and original contributions in an IES. Under the ongoing supervision of the teachers, students should be required to collect relevant data by themselves and then to develop their IES ideas. For example, teachers may arrange oral presentation sessions, where students have to take questions and challenges from peers and teachers, and provide an "oral defence" of their original work. This will help to demonstrate that the IES products are based on the students' own effort, while giving the students opportunities to learn from feedback given by teachers and peers.

For arrangements of SBA of IES, please refer to Chapter 5 on p. 121. The HKEAA will announce further details when the implementation of the three-year senior secondary academic structure approaches.

Chapter 5 Assessment

This chapter discusses the role of assessment in Liberal Studies learning and teaching, the principles that should guide assessment of the subject and the need for both formative and summative assessment. It also provides guidance on internal assessment and details regarding the public assessment of Liberal Studies. Finally, information is given on how standards are established and maintained, and how results are reported with reference to these standards. General guidance on assessment can be found in the *Senior Secondary Curriculum Guide* (CDC, 2007).

5.1 The Roles of Assessment

Assessment is the practice of collecting evidence of student learning. It is a vital and integral part of classroom instruction, and serves several purposes and audiences.

First and foremost, it gives feedback to students, teachers, schools and parents on the effectiveness of teaching and on students' strengths and weaknesses in learning.

Second, it provides information to schools, school systems, government, tertiary institutions and employers to enable them to monitor standards and to facilitate selection decisions.

The most important role of assessment is in promoting learning and monitoring students' progress. However, in the senior secondary years, the functions of assessment for certification and selection come to the fore. Inevitably, these imply high-stakes uses of assessment, since the results are typically employed to make critical decisions about individuals that affect their future.

The Hong Kong Diploma of Secondary Education (HKDSE) provides a common end-of-school credential that gives access to university study, work, and further education and training. It summarises student performance in the four core subjects (including Liberal Studies) and in various elective subjects, including both the discipline-oriented and the new ApL subjects. It needs to be read in conjunction with other information about students shown in the Student Learning Profile (SLP).

5.2 Formative and Summative Assessment

It is useful to distinguish between the two main purposes of assessment, namely “assessment *for* learning” and “assessment *of* learning”.

“Assessment *for* learning” is concerned with obtaining feedback on learning and teaching, and utilising this to make learning more effective and to introduce any necessary changes to teaching strategies. We refer to this kind of assessment as “formative assessment” because it is all about forming or shaping learning and teaching. Formative assessment should take place on a daily basis and typically involves close attention to small “chunks” of learning.

“Assessment *of* learning” is concerned with determining progress in learning, and is referred to as “summative” assessment, because it is all about summarising how much learning has taken place. Summative assessment is normally undertaken at the conclusion of a significant period of instruction (e.g. at the end of the year, or of a KS of schooling) and reviews much larger “chunks” of learning.

In practice, a sharp distinction cannot always be made between formative and summative assessment, because the same assessment can in some circumstances serve both formative and summative purposes. Teachers can refer to the *Senior Secondary Curriculum Guide* for further discussion of formative and summative assessment.

Formative assessment should also be distinguished from continuous assessment. The former refers to the provision of feedback to improve learning and teaching based on formal or informal assessment of student performance, while the latter refers to the assessment of students’ ongoing work and may involve no provision of feedback that helps to promote better learning and teaching. For example, accumulating results in class tests carried out on a weekly basis, without giving students constructive feedback, may neither be effective formative assessment nor meaningful summative assessment.

There are good educational reasons why formative assessment should be given more attention and accorded a higher status than summative assessment, on which schools tended to place a greater emphasis in the past. There is research evidence on the beneficial effects of formative assessment when used for refining instructional decision-making in teaching, and generating feedback to improve learning. For this reason, the CDC report *Learning to Learn – The Way Forward in Curriculum Development* (CDC, 2001) recommended that there should be a change in assessment practices, with schools placing due emphasis on

formative assessment to make assessment *for* learning an integral part of classroom teaching.

It is recognised, however, that the primary purpose of public assessment, which includes both public examinations and moderated SBA, is to provide summative assessments of the learning of each student. While it is desirable that students are exposed to SBA tasks in a low-stakes context, and can benefit from practice and experience with the tasks for formative assessment purposes without penalty, similar tasks will need to be administered subsequently as part of the public assessment to generate marks to summarise the learning of students (i.e. for summative assessment purposes).

Another distinction to be made is between internal assessment and public assessment. Internal assessment refers to the assessment practices that teachers and schools employ as part of the ongoing learning and teaching process during the three years of senior secondary studies. In contrast, external public assessment refers to the assessment conducted as part of the assessment processes in place for all schools. Within the context of the HKDSE, there will be both public examinations and moderated SBA conducted or supervised by the HKEAA. On balance, internal assessment should be more formative, whereas public assessment tends to be more summative. Nevertheless, this need not be seen as a simple dichotomy. The inclusion of SBA in public assessment is an attempt to enhance formative assessment or assessment *for* learning within the context of the HKDSE.

5.3 Assessment Objectives

The assessment objectives of Liberal Studies, which are aligned with the broad learning outcomes (from section 1.5), are listed below. Some of the assessment objectives are applicable to both internal and public assessment, while others are applicable to only one of these two modes.

Table 5.1 Learning outcomes and assessment objectives

Learning outcomes	Assessment objectives In Liberal Studies assessment, students should be able to:
(a) develop the capacity to construct knowledge through enquiring into contemporary issues which affect themselves, their society, their nation, the human world and the physical environment (see section 1.5 for details)	(i) demonstrate a sound understanding of the key ideas, concepts and terminologies of the subject; (ii) make conceptual observations from information resulting from enquiry into issues;

in (i) – (vi))	(iii) apply relevant knowledge and concepts to contemporary issues;
(b) understand the interconnectedness of personal, local, national and global issues, and the interdependence of the physical environment and society, and appraise issues of human concern accordingly	(iv) identify and analyse the interconnectedness and interdependence amongst personal, local, national, global and environmental contexts;
(c) reflect on the development of their own multiple identities, value systems and worldviews with respect to personal experiences, social and cultural contexts and the impact of developments in science, technology and globalization	(v) recognise the influence of personal and social values in analysing contemporary issues of human concern; (vi) draw critically upon their own experience and their encounters within the community, and with the environment and technology;
(d) identify the values underlying different views and judgments on personal and social issues, and apply critical thinking skills, creativity and different perspectives in making decisions and judgments on issues and problems at both personal and social levels	(vii) discern views, attitudes and values stated or implied in any given factual information; (viii) analyse issues (including their moral and social implications), solve problems, make sound judgments and conclusions and provide suggestions, using multiple perspectives, creativity and appropriate thinking skills; (ix) interpret information from different perspectives;
(e) present arguments clearly and demonstrate respect for evidence, open-mindedness and tolerance towards the views and values held by other people	(x) consider and comment on different viewpoints in their handling of different issues;
(f) develop skills related to enquiry learning, including self-management skills, problem-solving skills, communication skills, information processing skills and skills in using information and communication technology (ICT)	(xi) self-manage and reflect upon the implementation of successive stages of the enquiry learning process in terms of time, resources and attainment of the objectives of the enquiry; (xii) communicate clearly and accurately in a concise, logical, systematic and relevant way;
(g) carry out self-directed learning which includes the processes of setting goals, making and implementing plans, solving problems, analysing data, drawing conclusions, reporting findings and conducting evaluations	(xiii) gather, handle and analyse data and draw conclusions in ways that facilitate the attainment of the objectives of the enquiry;
(h) demonstrate an appreciation for the values of their own and other cultures, and for universal values, and be committed to becoming responsible and conscientious citizens	(xiv) demonstrate an understanding and appreciation of different cultures and universal values; and (xv) demonstrate empathy in the handling of different issues.

5.4 Internal Assessment

This section presents the guiding principles that can be used as the basis for designing internal assessment and some common assessment practices for Liberal Studies for use in schools. Some of these principles are common to both internal and public assessment.

5.4.1 Guiding principles

Internal assessment practices should be aligned with curriculum planning, teaching progression, student abilities and the local school context. The information collected will help to motivate, promote and monitor student learning, and will also help teachers to find ways of promoting more effective learning and teaching.

(a) *Alignment with the learning objectives*

A range of assessment practices should be used to assess comprehensively the achievement of different learning objectives for whole person development. These include those listed in 5.4.2. The weighting given to different areas in assessment should be discussed and agreed among teachers. The assessment purposes and criteria should also be discussed, agreed and made known to students, so that they can have a full understanding of what is expected of them.

(b) *Catering for the range of student ability*

Assessment with different levels of difficulty and in diverse modes should be used to cater for students with different aptitudes and abilities. This helps to ensure that the more able students are challenged to develop their full potential and the less able ones are encouraged to sustain their interest and pursue with a sense of success in learning.

(c) *Tracking progress over time*

As internal assessment should not be a one-off exercise, schools are encouraged to use practices that can track learning progress over time (e.g. learning portfolios). Assessment practices of this kind allow students to set their own incremental targets and manage their pace of learning, which will have a positive impact on their commitment to learn.

(d) *Timely and encouraging feedback*

Teachers should provide timely and encouraging feedback through a variety of means, such as constructive verbal comments during classroom activities and written remarks on assignments. Such feedback helps students to sustain their momentum in learning, and helps them to identify their strengths and weaknesses.

(e) *Making reference to the school's context*

As learning is more meaningful when the content or process is linked to a setting which is familiar to students, schools are encouraged to design assessment tasks that make reference to the school's own context (e.g. its location, relationship with the community, and mission).

(f) *Making reference to current progress in student learning*

Internal assessment tasks should be designed with reference to students' current progress, as this helps to overcome obstacles that may have a cumulative negative impact on learning. Teachers should be mindful in particular of concepts and skills which form the basis for further development in learning.

(g) *Encouraging peer assessment and self-assessment*

In addition to giving their feedback, teachers should also provide opportunities for peer assessment and self-assessment in student learning. The former enables students to learn among themselves, and the latter promotes reflective thinking which is important in lifelong learning.

(h) *Appropriate use of assessment information to provide feedback*

Internal assessment provides a rich source of data for providing evidence-based feedback on learning in a formative manner.

5.4.2 Internal assessment practices

A range of assessment practices, including but not limited to those in Table 5.2 below, should be used to promote the attainment of the various learning outcomes in Liberal Studies. However, teachers should note that these practices should be an integral part of learning and teaching, not “add-on” activities.

Table 5.2 Assessment practices related to learning outcomes

Learning outcome (from section 1.5)	Example of assessment practice ¹
(a) develop the capacity to construct knowledge through enquiring into contemporary issues which affect themselves, their society, their nation, the human world and the physical environment (see section 1.5 for details in (i) – (vi))	Following a discussion/video/study of excerpts from newspaper articles about an issue under consideration, students are asked to make generalisations, first verbally (facilitated by questioning from the teacher) and later in writing. (In a test situation, only written generalisations will be involved.)
(b) understand the interconnectedness of personal, local, national and global issues, and the interdependence of the physical environment and society, and appraise issues of human concern accordingly	Students are asked to demonstrate such understanding by producing mind maps, debating a theme from personal and global perspectives, and writing personal reflections on relevant current news topics of human concern.
(c) reflect on the development of their own multiple identities, value systems and worldviews with respect to personal experiences, social and cultural contexts and the impact of developments in science, technology and globalization	In their learning journals, students are asked to write (or draw) their reflections on their personal experiences (inside or outside the classroom) related to the values explored in formal lessons.
(d) identify the values underlying different views and judgments on personal and social issues, and apply critical thinking skills, creativity and different perspectives in making decisions and judgments on issues and problems at both personal and social levels	Students in groups read texts about an issue written from different perspectives. Then, through discussion, they have to formulate a written position on the issue as seen from an assigned role, and to anticipate other positions on the issue. A role-play is then conducted with contributions from all groups, each playing a distinctive role.
(e) present arguments clearly and demonstrate respect for evidence, open-mindedness and tolerance towards the views and values held by other people	Before engaging themselves in a group discussion about a “hot” current topic, students look for relevant facts and opinions in the media. They then present their views to group members who assess each other based on pre-explained criteria of open-mindedness and tolerance. After listening to his/her peers’ views, each student writes up his/her perspective on the topic, with supporting arguments, modified as necessary in the light of the discussion.
(f) develop skills related to enquiry learning, including self-management skills, problem-solving skills, communication skills, information processing skills and skills in using information and communication technology (ICT)	In the IES, the teacher informs students about the relevant learning objectives and the operational descriptions of various levels of competencies, helps students to develop such skills, and provides continuous feedback at appropriate

¹ All examples of assessment practice should be followed by teachers’ verbal or written feedback that can be understood by students in terms of attaining the learning objectives.

(g) carry out self-directed learning which includes the processes of setting goals, making and implementing plans, solving problems, analysing data, drawing conclusions, reporting findings and conducting evaluations	intervals. Students keep records of their skills levels as they move towards meeting the objectives.
(h) demonstrate an appreciation for the values of their own and other cultures, and for universal values, and be committed to becoming responsible and conscientious citizens	Teachers assess such affective qualities in students as demonstrated in external visits, data collection work in IES that involves external people/communities, and the ways in which they behave in the school community.

5.5 Public Assessment

5.5.1 Guiding principles

Some principles guiding public assessment are outlined below for teachers' reference.

(a) *Alignment with the curriculum*

The outcomes that are assessed and examined through the HKDSE should be aligned with the aims, objectives and intended learning outcomes of the three-year senior secondary curriculum. To enhance the validity of public assessment, the assessment procedures should address the range of valued learning outcomes, not just those that are assessable through external written examinations.

(b) *Fairness, objectivity and reliability*

Students should be assessed in ways that are fair and are not biased against particular groups of students. A characteristic of fair assessment is that it is objective and under the control of an independent examining authority that is impartial and open to public scrutiny. Fairness also implies that assessments provide a reliable measure of each student's performance in a given subject so that, if they were to be repeated, very similar results would be obtained. A set of skill-based marking criteria with detailed question-specific descriptions will be used in marking Liberal Studies papers. A marker will be assigned to mark answers to one question only, and all candidates' answers will be double-marked.

(c) *Inclusiveness*

The assessments and examinations in the HKDSE need to accommodate the full spectrum of student aptitude and ability. This is reflected in the questions set for the public written examination and the marking criteria for both the written examination and the SBA.

(d) *Standards-referencing*

The reporting system is “standards-referenced”, i.e. student performance is matched against standards, which indicate what students have to know and are able to do to merit a certain level of performance.

(e) *Informativeness*

The HKDSE qualification and the associated assessment and examinations system provide useful information to all parties. First, it provides feedback to students on their performance and to teachers and schools on the quality of the teaching provided. Second, it communicates to parents, tertiary institutions, employers and the public at large what it is that students know and are able to do, in terms of how their performance matches the standards. Third, it facilitates selection decisions that are fair and defensible.

5.5.2 Assessment design

The table below shows the assessment design of the subject for the 2014 to 2016 HKDSE Examinations. The assessment design is subject to continual refinement in the light of feedback. Full details are provided in the Regulations and Assessment Frameworks for the year of the examination and other supplementary documents, which are available on the HKEAA website (www.hkeaa.edu.hk/en/hkdse/assessment/assessment_framework/).

Component	Part	Weighting	Duration
Public examination	Paper 1 Data-response questions	50%	2 hours
	Paper 2 Extended-response questions	30%	1 hour and 15 minutes
School-based Assessment (SBA)	Independent Enquiry Study (IES)	20%	

5.5.3 Public examinations

As has been stressed already, an enquiry approach is adopted in learning and teaching the subject – and this is reflected in the design of the written examination. The question format is not meant to imply that students have to identify certain correct answers – on the contrary, the approach used stresses that most issues are too complex to allow of simple solutions.

Although, of course, one needs to have knowledge of relevant facts in order to make judgments about issues, the examination does not focus on factual knowledge – indeed great care is taken to avoid questions which call for detailed factual recall. The emphasis is on assessing understanding and the extent to which students can demonstrate appropriate thinking skills.

In the examination, candidates should be able to (the numbers in brackets refer to assessment objectives stated in section 5.3):

- demonstrate a sound understanding of the key ideas, concepts and terminologies required to give an informed response to the question; (i)
- identify concepts from and/or apply concepts to contemporary issues appropriately, and in the latter case provide examples/evidence to support arguments whenever appropriate; (ii) and (iii)

- demonstrate an understanding of how certain themes/concepts are relevant to or manifested across the domains of self, society, nation, the world and the physical environment; (iv)
- provide reasons to justify the values they hold in analysing issues; (v)
- identify the values underlying different views on contemporary issues, and differentiate among facts, opinions and value judgments; (v) and (vii)
- draw critically upon their relevant experience and encounters within the community, and with the environment and technology; (vi)
- identify contradictions and dilemmas, including those with moral and social implications, from information related to controversial issues, and consider such issues from a range of perspectives so as to draw conclusions; (vii), (viii) and (ix)
- provide reasonable suggestions and appropriate solutions for problems; (viii)
- show openness and tolerance towards views, especially non-mainstream views that are supported by argument; (x)
- respond in a way that reflects a proper understanding of the requirements of the questions in the examination paper; (xii)
- communicate clearly and accurately in a concise, logical and systematic manner; (xii)
- make effective use of data to describe, explain and deduce; (xiii) and
- make judgments based on a sound rationale. (xiii)

In each examination question, these abilities are organised into rubrics at different levels. The number of levels and the content of the marking guidelines are specific to each examination question. The whole of the two examination papers – rather than each question or each paper – reflects an assessment of most if not all of the above abilities. For most questions, there are core question-specific criteria which candidates must meet in order to attain a certain level of performance. These requirements on the design of the questions and marking criteria produce more reliable marking while still maintaining the liberal nature of the subject in the sense that there are no model answers to the questions.

There are clearly different standpoints and conflicts of values on the more controversial issues considered in Liberal Studies. Answers will not be marked down because candidates' viewpoints / values differ from those of the markers – marks will be awarded on the basis of how well the arguments are developed, not on the underlying values.

Different types of items will be used to assess students' performance in a broad range of skills and abilities. The two papers consist of data-response questions and extended-response questions respectively.

Paper 1 Data-response questions

Data-response questions aim to assess abilities such as identification, application and analysis of given data. The data define the scope and reflect the complex or controversial nature of the issue involved; and such questions also reflect the cross-modular nature of the curriculum.

Paper 2 Extended-response questions

Extended-response questions provide a wider context for students to demonstrate various higher-order skills, such as drawing critically on relevant experience, creative thinking, and communicating in a systematic manner.

Since Liberal Studies is concerned with the discussion and evaluation of issues, multiple-choice questions, as a kind of objective test, will not be adopted.

Schools may refer to the sample and live examination papers regarding the format of the examination and the standards at which the questions are pitched.

5.5.4 School-based assessment (SBA)

In the context of public assessment, SBA refers to assessments administered in schools and marked by the students' own teachers. The primary rationale for SBA in Liberal Studies is to enhance the validity of the overall assessment and extend it to include the following SBA objectives most of which cannot be easily assessed in written examinations (the numbers in brackets again refer to section 5.3):

- set goals and plans, implement the plans and solve problems (xi)
- develop a sense of exploration, discovery and independent thinking (ii) and (viii)
- demonstrate knowledge and understanding of an issue affecting our society, the nation and/or the world (i)
- understand how social, national and global changes occur in response to competing demands (ii)
- use analytical skills to investigate a contemporary issue from multiple perspectives (viii) and (ix)
- act in an informed way to suggest possible solutions and outcomes (iii) and (viii)

- understand how hypotheses and focusing questions are used to guide the investigation of an issue (xi)
- reflect on and evaluate learning progress (xi)
- present views and ideas (xii)
- show self-initiative (xi)

There are, however, some additional reasons for SBA. For example, it reduces dependence on the results of the examinations, which may not always provide the most reliable indication of the actual abilities of candidates. Conducting assessments based on student performance over an extended period of time, and developed by those who know the students best – their subject teachers – provides a more reliable assessment of each student.

Another reason is to promote a positive “backwash effect” on students, teachers and school staff. Within Liberal Studies, SBA can serve to motivate students by requiring them to engage in meaningful activities that lead to a penetrating assessment of their performance; and for teachers, it can reinforce curriculum aims and good teaching practice, and provide structure and significance to an activity they are continuously involved in, namely assessing their own students.

The **Independent Enquiry Study** (IES) is adopted as the mode of SBA in Liberal Studies. The IES is an investigative study in which students are required to demonstrate various skills such as problem-solving, data gathering and analysis, and communication. Each IES project should include a certain amount of subject matter based on students’ reading, research and personal experiences. Students can carry out an enquiry-based project, and the main body of the project can be in written or non-written form. The latter should be accompanied by a short written text explaining the main idea of the project, and showing the student’s reflections on it.

The IES provides a valuable opportunity for students to carry out a focused enquiry into a contemporary issue of interest with increased independence, and to present their views, ideas, findings, evaluations and personal reflections in a report.

Students should document their investigations in a learning portfolio which illustrates the process of enquiry, the stages in its development, and their ongoing interpretations, analyses and reflections on the knowledge and understanding gained.

Teachers should give some guidance to students on, for example, suitable enquiry methods, the interpretation and evaluation of findings, and appropriate modes of presentation.

Students are expected to submit their project proposals within the required time, finalise their topic areas and refine the topics, consult relevant information for their projects, and design plans for the enquiry.

Teachers need to ensure that the projects are the students' own work. For teachers this will involve:

- arranging regular meetings with students at the different stages;
- ensuring that class time is allocated to the project work; and
- examining proposals, data and the final draft of projects.

The details of the design of SBA are provided in the Regulations and Assessment Frameworks and School-based Assessment Teachers' Handbook for the year of the examination, which are available on the HKEAA website.

It should be noted that SBA is not an “add-on” element in the curriculum. SBA takes into consideration the wide range of student ability and avoids unduly increasing the workload of both teachers and students. Detailed information on the requirements and implementation of the SBA and samples of assessment tasks are provided to teachers by the HKEAA.

5.5.5 Standards and reporting of results

Standards-referenced reporting (SRR) is adopted for the HKDSE. What this means is that candidates' levels of performance are reported with reference to a set of standards as defined by cut scores on the mark scale for a given subject. Standards referencing relates to the way in which results are reported and does not involve any changes in how teachers or examiners mark student work. The set of standards for a given subject can be represented diagrammatically as shown in Figure 5.1.

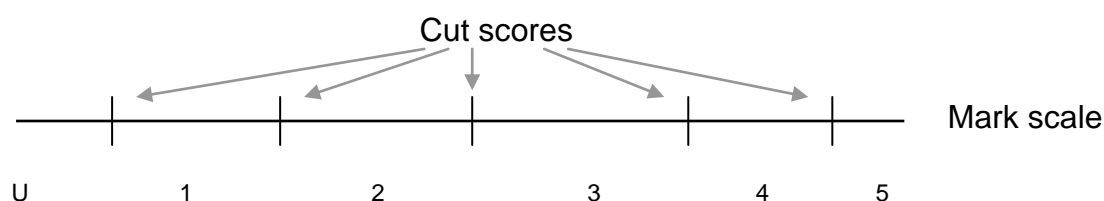


Figure 5.1 *Defining Levels of Performance via Cut Scores on the Mark Scale for a Given Subject*

Within the context of the HKDSE there are five cut scores, which are used to distinguish five levels of performance (1–5), with 5 being the highest. A performance below the cut score for Level 1 is labelled as “Unclassified” (U).

For each of the five levels, a set of written descriptors has been developed to describe what the typical candidate performing at this level is able to do. The principle behind these descriptors is that they describe what typical candidates can do, not what they cannot do. In other words, they describe performance in positive rather than negative terms. These descriptors represent “on-average” statements, and may not apply precisely to individuals, whose performance within a subject may be variable and span two or more levels. Samples of students’ work at various levels of attainment are provided to illustrate the standards expected of them. These samples, when used together with the level descriptors, will clarify the standards expected at the various levels of performance.

In setting standards for the HKDSE, Levels 4 and 5 are set with reference to the standards achieved by students awarded grades A–D in the HKALE. It needs to be stressed, however, that the intention is that the standards will remain constant over time – not the percentages awarded to different levels, as these are free to vary in line with variations in overall student performance. Referencing Levels 4 and 5 to the standards associated with the old grades A–D is important for ensuring a degree of continuity with past practice, for facilitating tertiary selection and for maintaining international recognition. Secure monitoring tests are used to ensure maintenance standards over time.

The overall level awarded to each candidate is made up of results in both the public examination and the SBA. SBA results for Liberal Studies are statistically moderated to adjust for differences among schools in marking standards, while preserving the rank ordering of students as determined by the school.

To provide finer discrimination for selection purposes in public assessment, the Level 5 candidates with the best performance have their results annotated with the symbols ** and the next top group with the symbol *. The HKDSE certificate itself records the Level awarded to each candidate.

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Chapter 6 Learning & Teaching Resources

This chapter discusses the importance of selecting and making effective use of learning and teaching resources, to enhance student learning. Schools need to select, adapt and, where appropriate, develop the relevant resources to support student learning.

To assist schools in implementing the three-year senior secondary curriculum, EMB will continue to provide them with additional funding and to allow flexibility in the use of resources to cater for their diverse needs. Schools are advised to refer to the relevant and latest circulars issued by EMB from time to time.

6.1 Purpose and Function of Learning and Teaching Resources

The purpose of learning and teaching resources is to provide a basis for learning experiences for students. Learning resources include not only textbooks, workbooks, and audio-visual teaching aids produced by the EMB and other organisations but also web-based learning materials, IT software, the Internet, the media, resources in the natural environment, people, libraries, etc. All of these should be drawn upon to help students to learn, broaden their learning experiences and meet different learning needs. If used effectively, they will help students to consolidate what they have learnt, extend and construct knowledge for themselves, develop the learning strategies and generic skills they need, and reflect on their values and attitudes. Teachers can also make use of learning resources to provide scaffolding for knowledge construction that goes beyond their confines, thus supporting students' learning to learn.

In Liberal Studies, learning and teaching resources are important to the issue-enquiry learning process in two ways. Firstly, they provide relevant background information and basic knowledge of perennial and contemporary issues. Learning and teaching resources can complement students' backgrounds and school-based learning experiences and lay the foundation for further enquiry and discussion. However, they should not become straitjackets limiting the directions, scope and depth of learning and teaching.

Secondly, learning and teaching resources serve to bring out different values, interests, views, opinions and controversies of the evolving issues. The provision of sources of learning and teaching materials from a variety of cultures helps students to appreciate diversity, the pluralistic nature of society and the existence of majorities, minorities, the privileged and the disadvantaged, etc.

The learning and teaching resources are not necessarily all chosen or developed by the teacher. Students can use their initiative to identify, propose and select learning resources. Having different socio-economic and cultural backgrounds, the students might see issues in very different ways and have different choices of material. Their suggestions can complement the teachers' choice and provide a variety of perspectives on issues.

Authentic learning and teaching resources will inevitably exhibit different ideological backgrounds, worldviews, values, perspectives and paradigms. They should not be treated as information and fact to be studied and memorised, but as artefacts to be analysed and evaluated critically.

In view of the evolving and ever changing nature of issues to be studied in Liberal Studies, it is inconceivable that the learning and teaching of Liberal Studies should rely on textbooks. The controversial nature of many issues requires that students have access to a range of materials, so that they are not bound by one or a very small number of perspectives.

6.2 Guiding Principles

The following are basic considerations in the use of learning and teaching resources:

- They should be in line with the curriculum aims and contain the core elements of the curriculum.
- They should arouse students' interest, motivate them to engage actively in learning tasks and inspire them to higher-order thinking.
- The choice of materials should take into account students' prior knowledge and experiences. They should provide access to knowledge as well as scaffolding to help students to progress in their learning.
- They should cater for students' individual differences by providing learning activities at different levels of difficulty and a variety of different learning experiences.
- They should promote independent learning by complementing and extending the learning activities within and beyond the classroom.
- The language used in the learning resources should be of a high standard.
- They should present information and ideas accurately and effectively.
- They should facilitate discussion and further enquiry.
- They should be affordable in terms of financial costs as well as of the time and effort required to prepare or acquire them.

6.3 Commonly Used Resources for Liberal Studies

6.3.1 Learning and teaching resources provided by EMB

To assist schools in managing curriculum change, EMB has provided them with a one-stop curriculum resources directory service at <http://www.edb.gov.hk/cr>. The directory provides a central pool of ready-to-use learning and teaching resources and useful references developed by EMB and other parties. The **Web-based Resource Platform for Liberal Studies** can be accessed via this resources directory service, or directly at <http://ls.edb.hkedcity.net>. It serves teachers through ongoing provision of learning and teaching resources. It is developed in collaboration by the EDB and the Hong Kong Education City (HKedCity).

On this Resource Platform, various types of teaching and learning resources have been planned and are being developed, including:

- **Relevant Concepts:** These are examples of major concepts within the six modules, and explanatory notes on these concepts will also be provided.
- **Teaching Packages:** These are issue-based sample packages of teaching and learning materials, including teaching plans, relevant teaching materials, thinking tools, assignments, and suggestions on extended study.
- **Resources Bank:** This is a bank of searchable learning and teaching resources of various kinds.
- **Bilingual Glossary:** This web-based glossary consists of references of ideas, words and phrases frequently used in the learning and teaching of this subject.
- **Other items,** such as literature selections and basic data on suggested IES themes.

The learning and teaching resources in the resource platform are not meant to be definitive and exhaustive. For teachers new to the subject, the resource platform may be treated as a one-click starting point for copyright cleared materials that can get them up and running. Experienced Liberal Studies teachers, working in tandem with their students, will feel at ease in selecting, editing, analysing, evaluating and criticising relevant materials provided in the website. The use of the website is also not mandatory.

6.3.2 Textual resources

Textual resources such as books, journals, reports and documents are important learning and teaching resources for Liberal Studies. Official documents and reports, both local and global,

are part of the essential sources of information for studying perennial and contemporary issues. They are usually good sources of information on the latest societal and global developments. Official viewpoints, however, have to be balanced by presenting viewpoints from NGOs, civil society and the private sector. Teachers and students can also resort to academic books and journals for more rigorous analyses. However, the authority of any expert should always be seen as providing one of a number of possible perspectives on an issue, but not as having the final word.

6.3.3 The Internet and technology

The massive increase in the quantity of information available today is causing us to adopt new approaches to learning and teaching. The Internet has become a powerful resource base and a readily available learning tool for everyone. Educators no longer have to act as the sole source of knowledge about a subject. The strategic use of technology has the ability to transform learning and teaching by enhancing student engagement and improving access to knowledge. Technology, however, is a means, not an end. The ‘sage on the stage’ model of teaching is already giving way to the ‘guide on the side’ approach. Instead of being the fount of all answers, teachers will facilitate learners to ask the right questions. They will help students construct their own knowledge. Students will move away from rote learning, towards the development of higher-order, critical thinking skills.

Technology, including IT, helps learning in the following ways:

- providing audio-visual aids for difficult concepts;
- helping the search for information from various sources and handling large quantities of information;
- allowing students to work at their own pace, including using specially designed software;
- enhancing interaction among learners, resources and teachers;
- providing platforms for collaboration among learners and teachers; and
- facilitating the learner’s acquisition of information, development of critical thinking and knowledge building, with teachers providing the necessary guidance and support.

For Liberal Studies, the use of IT provides an instant and global platform for the articulation of different values, views and opinions. Thus, the interaction and discussion are not confined to any locality or social group. The multiplicity of standpoints and perceptions is highly beneficial to the learning and teaching of Liberal Studies.

The information gathered through IT should be treated with care, however. Teachers and students should be aware of the value-laden and often selective information provided in software, web sites, chat groups, web journals (“blogs”), etc. Judgment should be suspended when sources of information are anonymous, partial and even falsified. The validity and reliability of any claim should be checked and substantiated by other sources of information and evidence.

In using IT to conduct enquiry in Liberal Studies, teachers should take note of the possibility of the digital divide. Support should be provided to students from lower SES families, who may lack access to IT facilities at home.

6.3.4 Mass media

The media, like the Internet, have become important sources of information for teachers and students engaging in the enquiry process in Liberal Studies. The media provide instant and global information. They also articulate different values, views and opinions which are essential to the enquiry process in Liberal Studies. Their inquisitiveness and comprehensiveness cover various dimensions of the evolving perennial and contemporary issues. Non-textual materials from the media could elevate the learning motivation and efficiency of some students with different learning styles.

However, messages from the mass media need to be deconstructed. Students should be guided to take into account the possible ideological motives and modes of operation of various media institutions. Information presented in the mass media should not be seen as the full fact or the whole truth.

6.3.5 Other non-textual resources

Other non-textual resources such as photographs, posters, maps, audio records and video records not available in the mass media or the Internet can also be important learning and teaching resources. Visual representations reveal worldviews and paradigms of the time. Audio and video recordings made by people of different localities and social groups reveal interesting first person experiences and responses with respect to the changing physical and human world. An empathetic understanding becomes more possible through activities based on such materials.

6.3.6 Community resources

A major strategy and characteristic of curriculum development is the call for partnership among all parties. Many parties can contribute in different ways to helping our students to learn effectively. Parents and alumni can be promising sources of support to the learning and teaching of Liberal Studies, if the school can strategically network them and solicit their help. There are different ways, other than sponsorship, for parents and alumni to show their support to schools. Their diverse backgrounds, experiences and connections can contribute to widening students' horizons and developing multiple perspectives. Please refer to Appendix 16 and p. 178 for an example of how alumni contribute to the learning and teaching of Liberal Studies in one school.

Community organisations and NGOs work at different levels and with different interests. Within their specific domains, they can provide valuable information, standpoints, views and opinions through their publications, reports and web sites. They are often willing to conduct talks and briefing sessions or organise activities for teachers and students. The Web-based Resource Platform for Liberal Studies has listed a number of 'Friends of Liberal Studies', which are NGOs committed to supporting the learning and teaching of the subject in different ways.

Being a target of study in specific modules or IES, community organisations and NGOs can provide students with interview opportunities as well as access to their databases, internal workings and even decision-making processes.

Public facilities such as parks, museums, libraries, and the information centres of government departments can all provide rich sources of material for learning.

6.4 Flexible Use of Learning and Teaching Resources

Given the vast variety of possible sources of learning and teaching materials for Liberal Studies, teachers should exercise their professional judgment in choosing and adapting resources for use in the learning and teaching of Liberal Studies, so as to support a wide range of pedagogies and suit the needs of a wide range of learners.

6.4.1 Fitness for purpose

The use of resources should fit the pedagogical purpose. In designing a role-play activity, background information regarding the different parties involved and the scenario chosen

should be provided. Such information may be provided to students in the form of newspaper clippings, video clips or role-specification sheets written by the teacher. In implementing 'Reading to Learn', ample good reading materials should be made accessible to students. In organising life-wide learning activities, suitable community resources such as museums and non-governmental organisations should be explored.

Sometimes a learning activity may involve different kinds of learning and teaching resources so as to maximise learning effectiveness. Appendix 14 on p. 175 provides an exemplar of a school making use of resources in the Hong Kong Wetland Park together with advanced communication technology and PDAs to conduct a field study.

6.4.2 Catering for learner diversity

The use of resources should meet the different needs and learning styles of students. Some students respond well to textual information, some to visual representation, and yet others to resources in other formats. The resources used should take into consideration students' characteristics and fit their learning styles. They should also encompass a range of different formats, so that students can learn to learn with different types of resources and develop different cognitive faculties.

6.4.3 Language issues in learning and teaching resources

The EMB will continue its efforts to develop teaching resources for Liberal Studies in both Chinese and English. Students should make reference to both Chinese and English learning resources, irrespective of MOI they use to learn the subject. Due to the nature of the subject, it is often necessary for students to access authentic information and resources, which are not necessarily available in their school's MOI. Where that is the case, there is no reason to refrain from using Chinese materials to study Liberal Studies for classes using English as MOI, and vice versa, since students in Hong Kong study both languages throughout their years of schooling. With appropriate assistance (such as provision of a glossary), there should be no problem for English-medium instruction (EMI) classes to discuss and study information written in Chinese for Liberal Studies lessons. By the same token, it is not always necessary to translate materials originally written in English for use in Chinese-medium instruction (CMI) classes.

6.5 Resource Management

Knowledge Management (KM) is the process through which organisations make the most of their intellectual and knowledge-based assets. Most often, making the most of such assets means sharing knowledge and experience among staff, with other schools, and even with other sectors in an effort to devise best practices. The culture of sharing is the key to success in KM. Schools should make arrangements and provide opportunities for:

- teachers and students to share learning and teaching resources through the Intranet or other means within the school; and
- teachers to reflect on their teaching when using different types of learning and teaching resources, and form professional development groups for face to face and electronic sharing of experiences.

Keeping a constantly updated resource bank covering the broad curriculum of Liberal Studies constitutes a very important factor for success in the learning and teaching of the subject. It has to be built up and maintained by the joint effort of teachers and students. Good work from past students (especially their IES products) can be a very valuable reference resource for other students. Please refer to Section 3.4.5 in Chapter 3 for more suggestions on building up and managing resources for the subject in school.

Suggested Themes of Enquiry for Independent Enquiry Study (IES)

Media

The rapid development of information and communication technology (ICT) has changed the profile of the mass media. It has also brought many changes to our lifestyle and interpersonal relationships. The sheer amount of information available in the media is so overwhelming and pervasive that our views and values are inevitably influenced unconsciously. With their particular interests and viewpoints, media producers disseminate sets of information permeated with their particular values through their products. In a heterogeneous media world, we need to learn to be discerning and, eventually formulate our own personal viewpoint. We must recognise the powerful impact the mass media have on us, and find ways to enhance media quality in our city.

The mass media influence issues related to society, culture, technology, science and environmental conservation. For example, how the mass media depict gender and social groups is reflected in our society and culture; and extensive media coverage on issues such as environmental conservation also stimulate discussion and concern.

Possible questions for enquiry

The theme can be explored through the following questions, which connect it to the Areas of Study:

- To what extent do the mass media propagate certain values and lifestyles? How do these values and lifestyles influence individuals?
- With the rapid development of ICT, in what ways do the mass media influence our lifestyles and interpersonal relationships?
- What roles do the mass media play in forming Hong Kong residents' identity?
- In a media world with mixed messages and values, how can we decide on our own views?
- What factors influence the operation of the mass media?
- What is the relationship between media globalization and the development of ICT?
- In what ways do the mass media influence the general public and cultural development?

- To what extent does the way gender and social groups are depicted in the mass media help to promote Hong Kong as an equal society?
- To what extent do the mass media promote environmental conservation in Hong Kong?
- How can the quality of the mass media in Hong Kong be improved?

Education

The significance of education in human development is well documented in the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, and the United Nations Convention on the Rights of the Child, all of which consider “receiving education” a basic human right. However, the implementation of such a right is extremely uneven globally. In developed societies, controversies have arisen with regard to the direction, rationale, curriculum design and implementation of education. There are contradictions between traditional values and those of a knowledge-based society. The school has to balance different demands and expectations, and help students to pursue self-actualisation, so that they can find their place in society. In addition, advances in science and technology have prompted changes in educational content and method. This has helped schools, teachers, and students to embrace a paradigm shift in learning and teaching. In contrast, millions of children in less developed societies still remain deprived of basic educational opportunities.

Possible questions for enquiry

The theme can be explored through the following questions, which connect it to the Areas of Study:

- What do young people feel about their educational journey?
- Does education necessarily make someone a cultured person?
- Is there a connection between general education and the spread of gender equality in society?
- Has the “human right” to education been compromised by factors such as race, gender, religion, and social status?
- Should the school system deliver only mainstream values?
- Why has “learning to learn” become a dominant trend in curriculum reform worldwide?
- How are educational policies made in Hong Kong?
- How effective is Hong Kong in implementing educational reform? What are the obstacles? What possible solutions are there?
- What impact has the development of ICT on education?
- What contribution has education made to environmental conservation and sustainable development?

Religion

Since time immemorial, human beings have been exploring spiritual life through different forms and pursuing the goal and meaning of life in different ways. For many individuals, religion inspires reflection on questions such as the meaning of life and the origin of the universe, and gives them strength and spiritual support. It also shapes an individual's view of self, of others and of the world. Religion is inseparable from culture and art, and exerts a profound influence on them. In Hong Kong, religious groups play a very active part in society. In today's world, the role and influence of religion in society differs greatly across and within cultures. In some cases, for cultural and political reasons, religion can be a cause of conflict and hatred. As science and technology continue to progress, religions may be reinterpreted, and be disseminated in a variety of ways. The human pursuit of a spiritual and inner world remains a force in society.

Possible questions for enquiry

The theme can be explored through the following questions, which connect it to the Areas of Study:

- Is believing in religion a sign of weakness? How does religion provide individuals with purpose and moral strength?
- How does religion provide meaning and answers to the issues of fate, human suffering and natural disasters?
- Do religious activities such as prayer, meditation, pilgrimage and confession elevate one's spirit?
- What is the role of religion in cultural development and social welfare provision in Hong Kong?
- In what ways do Chinese people express their religious sentiments through art, architecture and literature?
- Why does religion at times become an obstacle to human development, even a cause of war and hatred?
- What is the role of religion in the political arena in the modern world?
- Is faith compatible with science? What is the difference between religious faiths and superstitions?
- Does science and technology assist or impede the spread of religion?

Sports

Sport is a vital element in healthy living, and is closely related to social, emotional, physical and mental development. The place of sport in a society is determined by, for example, its history, the economy, attitudes to gender, and the mass media. A healthy and positive lifestyle is the goal of every individual, and should be highly valued in society. The realisation of this goal depends not just on personal effort – governments should also support and promote it. In many societies, sport is linked closely with commerce and politics, and with outbreaks of violence, gambling and other problems, which have an adverse affect on the community in various ways. The development of science and technology enables athletes to keep setting new records, but it also creates new issues concerning health and ethics.

Possible questions for enquiry

The theme can be explored through the following questions, which connect it to the Areas of Study:

- How does participation in sport relate to one's self image and self-confidence?
- How important is physical activity to personal health?
- Are there any links between sporting behaviour and the performance of athletes?
- In what ways has the development and promotion of physical activities reinforced or challenged traditional gender roles?
- What strategies should Hong Kong adopt to promote life-long participation in physical activities?
- What is the connection between sports performance and a country's economic, social and political development?
- How do commercial interests control the development of sports?
- How can violence, fraud and gambling be tackled in the world of sport?
- What role do sports tournaments play in the international arena?
- In a modern city, how can suitable venues and facilities be provided to encourage participation in sport?
- How does science and technology enhance sports performance?
- What problems are raised by the taking of drugs in order to enhance personal performance in sport?

Art

Through art appreciation and creation, individuals enrich their lives and widen their outlook. But it takes much more than enthusiasm and talent for a young person to take up a career in art. Hong Kong is a society of diverse cultures, where Chinese and foreign elements interact, and there is a rich local heritage. The commercial orientation of the city has made it difficult for traditional art to flourish. However, new creative skills and communication technologies have opened up possibilities for creative art development and promotion. There has been considerable controversy about the place of artistic creation in Hong Kong; and there is concern about whether the development of art and culture is lagging behind Hong Kong's achievements in business the economy and technology.

Possible questions for enquiry

The theme can be explored through the following questions, which connect it to the Areas of Study:

- How does art develop individual potential and inculcate values?
- How should young people who are dedicated to art creation or performance plan for their life and career?
- Is gender a relevant factor to an individual in terms of artistic development and sensitivity?
- How do people conserve cultural heritage and promote cultural exchange through art creation?
- How do we assess the importance and value of art to Hong Kong society?
- Is there a place for art creation and development in Hong Kong society?
- What are the similarities and differences in terms of the development of art and culture in Hong Kong and on the mainland?
- Does high technology impede traditional art development?
- What impact does communication technology have on the development of art?
- What connections can be drawn between aesthetics and environmental conservation?

Information and Communication Technology (ICT)

The rapid development and popularisation of ICT has brought major changes to our lives, work, learning and leisure. Technology influences the way people communicate and relate to each other. The extensive application of ICT in industry, commerce, education and medicine has accelerated the development of society and its connections with other places, which has promoted economic development. ICT has brought considerable advantages to individuals and society, but it has also produced problems, such as computer crime, threats to human rights and privacy, issues related to intellectual property; and the digital divide between those with and without access to it.

Society needs to be aware of the factors which influence ICT development, and the impact of ICT development on the management of resources and environmental conservation.

Possible questions for enquiry

The theme can be explored along the following questions, which connect it to the Areas of Study:

- What factors affect the development of ICT?
- How does the popularity of ICT influence communication and human relationships?
- In what ways does ICT influence people's daily lives?
- What threats does the popularisation of ICT impose on personal rights such as those of privacy and intellectual property?
- How can individuals, the government, NGOs, commercial and international organisations help Hong Kong solve the problem of the "digital divide"?
- How does the wide application of ICT in education in Hong Kong affect the development of science and technology?
- What opportunities and challenges does ICT bring to the global economy?
- Does the development of ICT promote the development of democracy or governmental control?
- What effect does ICT have on resource management and environmental conservation?

A Sample Design for Teaching a Topic in Integrated Humanities

The following is a teaching plan designed by a teacher of Sha Tin Methodist College on a topic in Integrated Humanities (IH) (S4–5).

個人成長：我要成為一個怎樣的人？

課題：培養自覺

教學內容	教學材料	學習技能	價值態度	課堂活動	課後活動
1. 自己對自己的看法	舊報章／雜誌 工具：剪刀、膠水和畫簿	搜集資料的方法—自我發現法	個人獨特性	從舊報章／雜誌上剪取代表自己的圖畫和文字	將剪取的圖畫和文字貼在畫簿內
2. 同學對自己的看法	a. 優點紙	分類法	欣賞別人	優點大轟炸	將優點紙分類，然後貼在畫簿內
	b. 「祖氏窗口」的四種型態表格	觀察力和推想力	自信和互信	「祖氏窗口」小組活動	將已填妥的祖氏窗口貼在畫簿內
3. 朋友對自己的看法	訪問技巧節錄	訪問技巧	自我欣賞	教師扼述訪問時需要注意的事項	將訪問紀錄貼在畫簿內
4. 家人對自己的看法	「家人眼中的我」工作紙	搜集資料的簡明方法	建立自尊	分享家人對自己的讚賞和鼓勵	將工作紙貼在畫簿內
5. 社會人士對青少年的看法	各種剪報或錄影資料	從各種媒體搜集資料的方法	自我反思	報告社會人士對青少年的正、負面看法	將各種剪報貼在畫簿內
6. 我是誰？	從各種途徑搜集得來的資料	歸納和分析技巧	自我反省	展示優秀製成品	細閱上述各種資料，然後歸納和分析之
7. 個人對未來的期望	心形紙	輕重取捨	人生有夢	「我有一個夢」宣言	時間囊

Preparing for and Facilitating Student Group Learning

Students in United Christian College have many chances to conduct group discussion when they are at junior secondary level. Teachers employ different strategies to help students acquire the skills needed for successful group discussion and ensure the smooth running of group learning activities in class. This kind of learning experience in the junior forms is very good preparation for students to participate effectively in Senior Secondary Liberal Studies lessons, where they will have many opportunities to engage in group discussion.

The following strategies for organising group discussion and facilitating student participation in it are shared by a teacher of Integrated Humanities (IH) (S1-3) in that school.

1. Forming of groups

At the beginning of the school year, students are asked to divide themselves into four groups for group discussion, elect a group leader for each group, and submit the name list to the teacher for final approval. For classes involving group work, a special seating plan is adopted so that the groups are seated in the order of their group number, each around four desks. The grouping and the seating arrangement are the basis for group activities to be conducted throughout the school year. With this arrangement, the classes form groups very efficiently whenever the teacher asks them to do so.

2. Variations in grouping

When the students have become used to the practice of forming groups and are familiar with each other, the teacher may introduce some variations to the grouping by, for example, asking each group to swap one or two members with another group. This allows students to develop different collaborative relationships and group dynamics.

3. Preparation of group discussion

Sometimes the teacher may design a group activity that requires preparation on the students' part. In this case, the teacher will inform the students about the group task in the upcoming lessons and explain the purpose of group discussion and general arrangement for the task. Students will be told to prepare for the task, with each one collecting relevant information

and materials for sharing and discussing with other group members. This encourages students to take more responsibility for their learning.

4. Supervising group discussion in class

While students are working or discussing in groups, the teacher keeps an eye on the progress of the class. As a general rule, the teacher refrains from contributing ideas or opinions to the groups' discussion but will intervene when she discerns that a group has moved in a wrong direction or has difficulty in continuing their discussion.

5. Post-discussion reporting

It is common practice for the groups to share the results of the group discussion with the class. Sufficient lesson time has to be allocated for reporting if the groups are assigned different tasks. Where all the groups are working on the same task, the teacher may save time by picking only one or two groups for sharing and whole-class discussion. The rest of the groups may be asked to report in their learning journal, or as part of a written assignment.

In cases where the groups are asked to finalise their discussion results after class and report in the next lesson, the teacher requires the students to upload an electronic copy of their presentation onto a designated location in the school intranet beforehand. Students may make their classroom presentation with the computer which is logged on to the intranet. This helps to make the presentation flow smoothly.

Internal assessment can also help to enhance students' initiatives in reporting. Students' performance in presentation is assessed individually as part of the internal assessment for the subject. If students understand that they need to give at least one individual oral presentation during the school year, they become more active in taking up this responsibility.

Supporting the Learning of Students from Lower Socio-economic Status (SES) Families

There is always concern that students from less affluent families are disadvantaged in their learning in various ways. Their exposure to society and the world is often limited by the resources they have at their command. It is often claimed that students from families with fewer resources shy away from class discussion, not only because of lack of confidence, but also due to their perception that they have a confined view of life. According to this view, subjects such as Liberal Studies, which puts more emphasis on bringing in personal experience and exposing oneself to different issues in society, might further aggravate the differences in learning between these and other students.

Experience in teaching (IH) (S4–5) in Nam Wah Catholic Secondary School does not support such preconceptions. In a class discussion on different styles of life in Hong Kong, classmates from lower Socio-economic Status (SES) families shared their knowledge of the way poor families live with confidence. The other students listened with great interest and were very impressed by these authentic experiences of people around them.

The IH teacher considers that, with appropriate support from teachers, students from lower SES families have a great deal to contribute to the class learning of IH, and much to gain from it. He makes the following suggestions for promoting a supportive culture in school, building peer support among students, and enhancing their self-esteem, so that the class can reap the full benefit from sharing their life experiences.

1. Preparing students for sharing their experiences

It can be very difficult for a student to share personal experiences with others as this touches on their private lives. However, students may feel less anxious if they are prepared psychologically and equipped with certain presentation skills beforehand. The IH teacher encourages students to focus their sharing of experience on the contribution it can make to the class in learning IH, and not on the “ownership” of the experiences. They can share their own experience if they want to, but they can also share stories they have gathered through conducting community service; and they are advised that, even when they are talking about their own experiences, they can attribute them to another person.

2. Enhancing students' self-esteem through service learning

The school gives students many opportunities to be involved in community service. The participation rate has been high and the feedback from students has been positive. Students, rich and poor, appreciate the importance of love and the value of giving love to others through serving them. This strengthens peer support and reinforces a supportive school culture. Students come to recognise their own values and build up their self-esteem in the process of helping those in need.

3. Widening students' horizons

To ensure that students, regardless of their socio-economic background, have a good exposure to society, the teacher and his colleagues applied for funding on life-wide learning and used it to arrange outings and visits to widen students' horizons. For example, some weeks before the WTO Hong Kong Ministerial Conference was held in December 2005, the teachers took students to Wanchai to see the venue for this big international event.

4. The school culture

Nam Wah Catholic Secondary School has a strong supportive school culture. The school organises two fund-raising activities each year to help students in financial need. The activities are well supported by students, teachers, parents and alumni. The funds thus raised provide financial support to students and often meet urgent needs – for example, the buying of sweaters in winter.

Examples of Schemes of Work on Cross-modular Topics

Example 1: Avian Flu

Effect of Avian Flu on Hong Kong Residents' Quality of Life

(Suggested lesson time: 2 hours)

- With respect to the threat of Avian Flu, which aspects of the quality of life are seen to be more important, and by whom?
- How, and to what extent, have Hong Kong residents and related organisations contributed to the prevention of the spread of Avian Flu?

Module 2, Theme 1

Which aspects of the quality of life are seen to be more important?
Which are seen to be immediate needs?

Module 2, Theme 1

How can individuals or organisations contribute to the maintenance and improvement of the quality of life?
What are the obstacles to their efforts? Which groups of people are the most affected if these obstacles are not removed?

Avian Flu and Globalization

(Suggested lesson time: 4 hours)

- To what extent does Avian Flu lead to international cooperation?
- Does the fight against Avian Flu lead to better understanding among different countries and multi-national corporations or intensify conflicts among them?

Module 4

What are the characteristics and trends in the development of globalization?

Module 4

Does the spread of globalization promote international understanding or cause greater conflict among ethnic groups, religions, cultures and political entities?

Reflection on Public Health Issues Arising from Avian Flu

(Suggested lesson time: 6 hours)

- How is the understanding of Avian Flu and related precautionary measures affected by health information, social expectations, personal values and beliefs in different cultures?
- Should the patent for Tamiflu be compromised for the sake of preventing the spread of Avian Flu in certain countries?

Module 5, Theme 1

In what ways is people's understanding of public health affected by health information, social expectations, personal values and beliefs in different cultures?

Module 5, Theme 2

In the area of public health, how is the development of science and technology affected by various

- To what extent is the information-sharing system among different countries effective with respect to the control of the spread of Avian Flu? Why?

factors, and what issues are triggered by this development? How can the fruits of scientific and technological research be respected and protected?

Module 5, Theme 2

What challenges do different sectors of society, the government and international organisations have in maintaining and promoting public health?

Example 2: *Shenzhou VI*

Shenzhou VI and Aspirations

(Suggested lesson time: 4 hours)

- With reference to sharing of the *Shenzhou VI* astronauts, how would you strike a balance among national commitment, family responsibilities and one's aspirations?

Shenzhou VI and National Identity

(Suggested lesson time: 2 hours)

- To what extent did the launching of *Shenzhou VI* and related media reports promote the national identity of Hong Kong residents?

Shenzhou VI and the Development of China

(Suggested lesson time: 9 hours)

- Why is there a series of “*Shenzhou*” projects in China? What are the factors promoting the development of aerospace technology in China?
- What are the effects of the series of “*Shenzhou*” projects on economic and social development in China? To what extent has the overall national strength been changed?
- What factors facilitate or impede female participation in the development of aerospace technology in China?
- How do different stakeholders in China benefit from the development of aerospace technology? What are the costs and who bears them? Are they worth it?
- Do you agree that China should keep investing substantial resources in developing aerospace technology? Why?

Module 3, Theme 2

To what extent have the traditional concepts of the family been maintained in modern Chinese life? Why?

Module 1, Theme 1

What factors influence the self-esteem of adolescents? How is it related to adolescents' behaviour and aspirations for the future?

Module 1, Theme 2

What motivates Hong Kong adolescents to participate in community affairs?

Module 2, Theme 3

To what extent do Hong Kong residents regard themselves as local, national and global citizens? How are their identities shaped? In what ways have their different identities affected their daily lives?

Module 3, Theme 1

- How have the changes in living standard and the way of life been viewed across the whole country?
- To what extent have the reform and opening-up affected the overall national strength of the country?
- To what extent are sustainable development and cultural conservation feasible in such a rapidly developing country? What are the challenges and opportunities?

Shenzhou VI and International Relations

(Suggested lesson time: 3 hours)

- Premier *Wen Jiabo* emphasised, “Our human space activities are to contribute to humankind’s undertakings of sciences and peace... We are willing to join hands with people all over the world for peaceful use of space.” To what extent has Premier *Wen*’s aspiration been realised?

Shenzhou VI and Sustainable Development

(Suggested lesson time: 2 hours)

- Does the development of aerospace technology contribute to the well-being of human beings or make human life more miserable? Who enjoys the benefits and who should bear the costs?

Module 3, Theme 1

In what ways has China’s participation in international affairs affected the overall development of the country?

Module 4

Does the spread of globalization promote international understanding or cause greater conflict among ethnic groups, religions, cultures and political entities?

Module 5, Theme 2

Can science and technology provide new solutions in the prevention and control of diseases?

Module 6, Theme 2

How do science and technology match with sustainable development? What are the constraints?

Example 3: Beijing Olympic Games

The Olympic Games in Beijing and National Development

(Suggested lesson time: 6 hours)

- What kind of benefits can the country gain from the Games? Who will gain?
- What are the costs involved in organising the Games? Who pays them?
- How is the Beijing Olympics being perceived internationally? How does it affect the overall development of the country?
- To what extent has the preparation for the Beijing Olympics been consistent with international standards?

Module 3, Theme 1

- To what extent are sustainable development and cultural conservation feasible in such a rapidly developing country? What are the challenges and opportunities?
- In what ways has China's participation in international affairs affected the overall development of the country?
- How has the Central People's Government dealt with the effects of reform and opening-up?

Beijing Olympic Games and Chinese Culture

(Suggested lesson time: 2 hours)

- To what extent have Chinese traditional customs been embedded in the Beijing Olympics? Why?
- What kinds of values and cultural practices have influenced the preparation for the Olympic Games? What impact have they had?

Module 3, Theme 2

To what extent are these traditional customs of significance to modern Chinese society?

Module 4

Does globalization promote homogeneity or diversity in culture and values? Does it bring mutual rejection or integration and evolution?

Beijing Olympic Games and Hong Kong

(Suggested lesson time: 6 hours)

- To what extent have Hong Kong adolescents been motivated to participate in local events by the Beijing Olympics and the 2008 Olympic Equestrian Events to be held in Hong Kong?
- With respect to the 2008 Olympic Equestrian Events, which aspects of the quality of life are seen to be more important, and by whom?
- How do the Beijing Olympics and the 2008 Olympic Equestrian Events influence the local, national and global identities of Hong Kong residents? Why?

Module 1, Theme 2

What motivates Hong Kong adolescents to participate in community affairs?

Module 2, Theme 1

Which aspects of the quality of life are seen to be more important? Which are seen to be immediate needs?

Module 2, Theme 3

To what extent do Hong Kong residents regard themselves as local, national and global citizens? How are their identities shaped?

Example 4: Disney: Can the dream come true?

The “Disney” Dream

(Suggested lesson time: 7 hours)

- With respect to the quality of life, what are the actual and perceived costs and benefits for Hong Kong of the construction and running of Disneyland, and to whom?
- Does the Walt Disney Company promote homogeneity in culture and values? How does it engage with Chinese culture?
- How do the values and beliefs being promoted by the Walt Disney Company affect adolescents’ understanding of identity and roles and their relationships with others?
- There have been many responses to a young Hong Kong celebrity who acted as Snow White. How does an event such as this affect the self-esteem, behaviour and aspirations of Hong Kong adolescents?

The “Disney” Reality

(Suggested lesson time: 6 hours)

- How do the operations of Disneyland affect the environment and the use of energy?
- How has the Hong Kong Government responded to complaints about suspected government collusion with Disney, exploitation of labour, over-protection by patent, and discrimination by the Disneyland management?

Module 2, Theme 1

- Which aspects of the quality of life are seen to be more important? Which are seen to be immediate needs?
- How can individuals or organisations contribute to the maintenance and improvement of the quality of life? What are the obstacles to their efforts? Which groups of people are most affected if these obstacles are not removed?

Module 4

Does globalization promote homogeneity or diversity in culture and values? Does it bring mutual rejection or integration and evolution?

Module 1, Theme 2

How are adolescents’ identity developed and roles embedded within different relationships?

Module 1, Theme 1

What factors influence the self-esteem of adolescents? How is it related to adolescents’ behaviour and aspirations for the future?

Module 6, Theme 2

How do the living styles of people and social development affect the environment and the use of energy?

Module 2, Theme 2

How does the government respond to the demands of different social groups? What is the impact of the responses on the governance of Hong Kong, the safeguarding of the rule of law and the promotion of socio-political participation among

- What impact has Disneyland had on Hong Kong?
- Is the impact on Hong Kong the same as in other cities with a Disney theme park? Why

The “Disney” Future

(Suggested lesson time: 4 hours)

- How has the Hong Kong Government and other organisations responded to the impact of the construction works and operations at Disneyland on habitats, antiquities and monuments? How should the government plan for extension works at Disneyland? What should be the roles of the company, the general public and NGOs?
- China is planning to construct another Disney theme park in Shanghai. With respect to sustainable development and cultural conservation, what issues should be considered at the negotiating table?

Hong Kong residents? Why?

Module 4

Is the impact of globalization similar or different between countries and within countries?

Module 6, Theme 2

What responses could be made by the public, different sectors, and governments regarding the future of sustainable development?

Module 3, Theme 1

To what extent are sustainable development and cultural conservation feasible in such a rapidly developing country? What are the challenges and opportunities?

The Role of a School Principal in the Introduction of a New Subject

The principal decided to offer Integrated Humanities (IH) (S4–5) in his school starting from 2003. He was glad that students were very interested in IH and it had a positive impact on them. Having studied IH, students had a range of perspectives to share and their interpersonal skills improved. He attributed this to the effort and teamwork of his teachers.

Besides its benefits to students, the principal decided to implement IH at this stage because it could help to prepare teachers and the school for Senior Secondary Liberal Studies and thus benefit future school development. He deployed several young teachers to start teaching IH because it was easier for them to adopt a new mindset and accept a new pedagogy. These teachers will help the school to accumulate knowledge and experience relevant to the teaching of Senior Secondary Liberal Studies.

Reflecting on the implementation of IH, the principal noted that support from the school to the teachers is very important. The tangible resources the school could afford to offer were minimal. However, the principal gave his support through personal involvement. He took up the leadership role in the initial stage of preparation; and he attended seminars with the teachers, studied the curriculum guide with them, and had extensive discussion with them about the implementation of the subject. At a suitable stage, he gave the teachers a free hand to plan and organise their work. In the middle of the term, he reviewed progress with them and gave them feedback and encouragement.

He also emphasised that one of important things a principal must do is to give teachers time and opportunities to participate in professional development activities, because this helps in building up their professional capacities and gradually brings very significant benefits to students and the school.

Experience Sharing of a Liberal Studies Panel Chairperson

Sha Tin Methodist College offers both Integrated Humanities (IH) (S4–5) and ASL Liberal Studies. A composite subject panel is formed by 12 teachers of these two subjects, who have different subject expertise and years of experience in IH or Liberal Studies teaching. The panel chairperson noted that the following points are vital for maintaining good collaboration and enhancing peer learning among colleagues on the panel:

1. To recognise and respect the uniqueness and value of the members

Like students, teachers have different strengths and needs. The panel chairperson can give teachers who are very experienced and confident more opportunities to mentor teachers with less experience. However, teachers who are inexperienced in teaching IH or Liberal Studies may need more help and support. The panel chairperson can offer support by sharing his/her own work (e.g. lesson plans) and inviting the teachers to observe his/her lessons. Also, rapport can be built by celebrating success with the teachers and listening to their difficulties in teaching as this will greatly enhance their confidence and sense of belonging to the panel. Where teachers are independent and like to work on their own, the panel chairperson should intervene only when they ask for help or when some irregularities arise.

2. To maintain collaboration and to establish a good team spirit

As Liberal Studies panel requires a great deal of collaboration among teachers, team-building is very important. Common lesson planning periods can be provided for teachers who teach similar modules or classes to conduct collaborative lesson preparation and reflect on teaching practice; and there should be panel meetings for the members to report on recent developments, share their teaching experience and collect feedback from their peer colleagues.

3. To encourage sharing of resources

To encourage sharing of resources among members, a panel chairperson can start by sharing his / her own resources with other teachers and encourage other teachers to do the same.

4. To enhance peer learning

Common collaborative lesson preparation periods are very helpful for enhancing peer learning. To promote peer learning, a panel chairperson can take the lead in offering lesson observations and invite feedback from other members. Informal discussion after class also allows teachers to share their experience fruitfully without pressure.

A Role-play Activity in an ASL Liberal Studies Lesson

A teacher in SKH St. Benedict's Secondary School designed a role-play activity for Liberal Studies, in which students take different roles and engage in a debate on a controversial issue.

The design

The issue: “Should the Northern Link be built to connect Kam Sheung Road terminus to Lok Ma Chau?”

Preparation: Students are divided into five groups of four to five. They collect information about opinions on the construction of the Northern Link

Teachers prepare role-specification sheets with background information and the views held by the following parties: representatives from the Transport Department, the Environmental Department, the railway, local residents and truck drivers.

Class activity: Students study the role sheets in groups. Two members from each group take part in a debate on the issue, with the rest forming the audience. Before the debate, students are asked to write down whether they are for or against the proposal; during the debate, they have to jot down the views of the different parties; and after it, they are asked if they have changed their views and, if so, why.

The advantages of role-play

The teacher considers that role-play can widen students' perspectives. While they may not change their stance on an issue after a short activity, they are at least exposed to other viewpoints, and have an opportunity to develop empathetic thinking and understand the positions taken by different parties.

The key to success

The teacher advises that the issue chosen should be close to students' daily lives, so that they can master the roles of those involved. Apart from providing background information on the issue under debate and the parties involved, the teacher can deliberately build in “conflicts” among different roles when designing the role-specification sheets. Debriefing after the debate is also important to allow students to reflect on contrasting and competing

views and consolidate their own understanding. Please refer to the section on “Teachers’ Debriefings” in Section 4.4.2 on p. 107.

A detailed description of the role-play activity can be accessed in the Web-based Resource Platform for Liberal Studies. Please refer to the link <http://ls.edb.hkedcity.net>. After selecting the language, choose “Learning and Teaching”, then “Exemplar”, for further information.

A Group Discussion Activity in Integrated Humanities (IH) (S4–5)

An IH teacher in C&MA Sun Kei Secondary School shared her experience in conducting group discussion.

Choosing a topic for discussion

Poverty alleviation was one of the key social policies mentioned in the 2005–06 Policy Address. The teacher wanted to arouse students' interest in the Policy Address and their awareness of poverty in Hong Kong. She arranged for students to hold a group discussion on the issue: "What should the government do to solve the youth poverty problem?"

Securing a knowledge base

Students' discussion can end up in empty talk if they are not well informed about the topic. So the teacher asked the students to collect information on poverty in Hong Kong and bring it back to class for discussion. She also briefed them on some key concepts related to the issue, such as absolute poverty and relative poverty.

Further input for a balanced discussion

The teacher noticed that the information collected by students presented only one side of the issue. She also noted that the topic of poverty and the discrepancies between the rich and the poor were rather remote from the experience of some students.

She, therefore, provided supplementary information on the factors leading to poverty, the impact of poverty on families and the risk of intergenerational poverty. To provide additional perspectives, she showed students a TV programme produced by Radio Television Hong Kong on the services provided by local voluntary organisations to help the unemployed to seek jobs. The programme also introduced the measures taken by the government, which were to be the focus of the upcoming discussion.

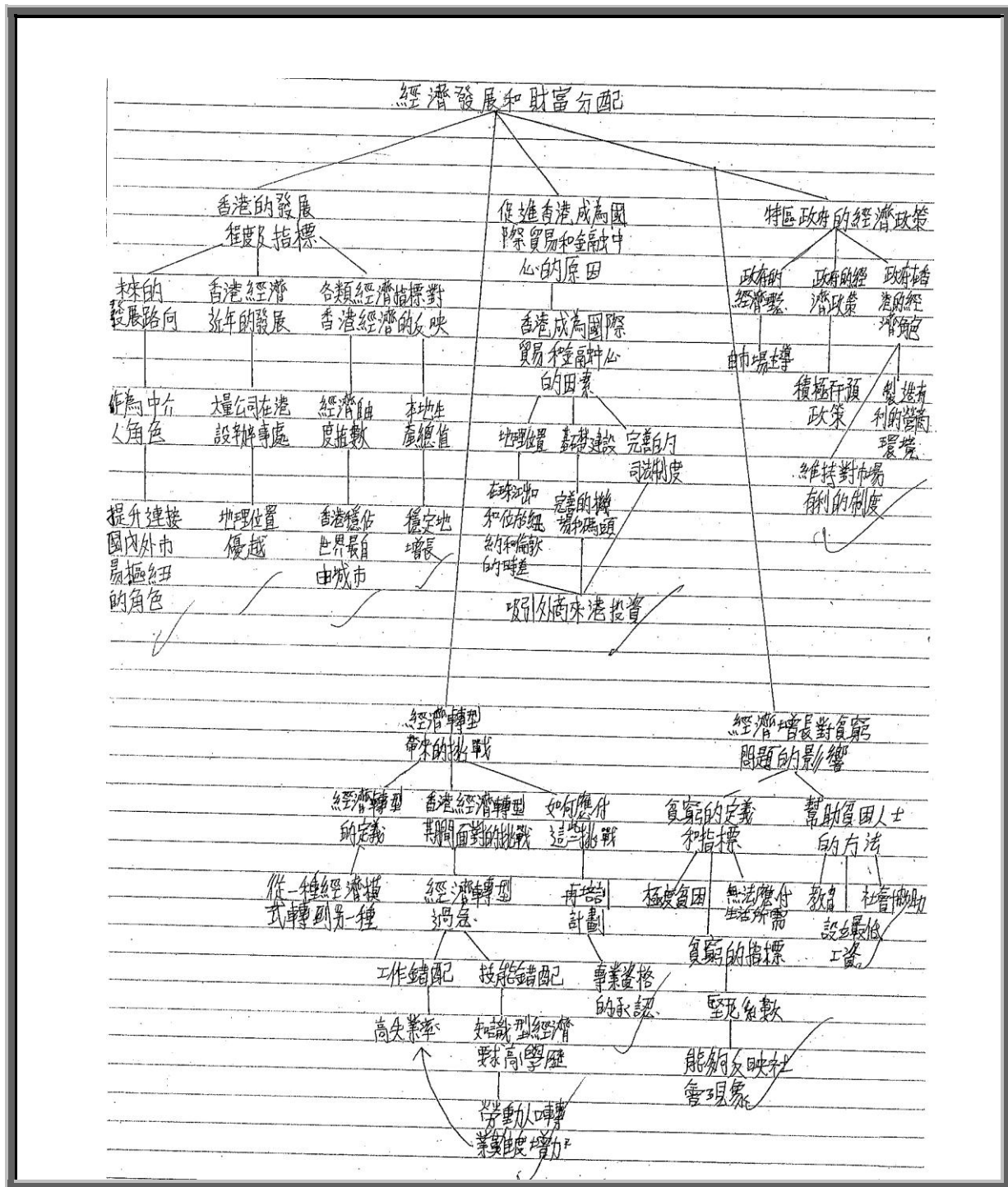
As the students were now equipped with factual information about the topic, the views of different parties in society, and some relevant key concepts, they could start an informed discussion on solutions to the problem of youth poverty.

Students' interactions

In group discussion, students learnt not only to formulate and present their own positions on the issue, but also to respect others' views and face challenges and queries from their peers. For example, when one group suggested that schools could provide job-related training to young students, another group argued that this would limit students' academic learning. Yet another group also expressed doubts about the kinds of job-related training that could be provided by a school. This kind of peer interaction helped students to develop multiple perspectives.

A Concept Map Drawn by a Student

The following concept map represents the attempt of a student of Integrated Humanities (IH) (S4-5) to summarise his learning about the topic “economic development and wealth distribution”.



Learning Liberal Studies through a Study Tour

Hon Wah Middle School conducts a “Mainland Study Tour” annually as part of the overall S6–7 curriculum, to complement the academic subjects and link to cross-curricular project learning. Through the years, they have visited various parts of China, and the subjects studied have included Liberal Studies, Chinese Language and Culture, Geography, English Language, Chemistry, Chinese History, History, Economics, Physics and Chinese Literature. The students have responded positively to this annual event, which has helped to promote their understanding of the country and enhanced their sense of national identity. The school attributes the success of the study tour to the following factors:

Links with subject curricula

The themes and content of the tour are closely linked to students’ learning in subject curricula, including Liberal Studies (especially the module “China Today”). The tour provides them with first hand experiences of what they have learnt in the classroom.

Links with project learning

Students undertake project learning during the study tour and finish their reports afterwards. They go through the whole process from defining the enquiry question, collecting and selecting information, to presentation. This makes the study tour an active learning experience.

Personal relevance

Students indicated that their understanding of the country had been deepened through the study tour, and their sense of belonging to the country enhanced.

Collaboration and commitment among teachers

Cross-department collaboration is needed to organise the study tour. Through the preparatory process, the tour itself, and the evaluation afterwards, a strong sense of commitment and a team spirit are developed among teachers of different subjects and functional groups.

Quality Feedback by Teachers

A teacher in St. Antonius Girls' College shared her experience in helping students to conduct an Independent Study in Science and Technology (S&T) (S4–5) through timely feedback which addressed students' strengths and weaknesses, and prompted them to move forward.

The teacher grouped together students who chose the same mode and similar themes to brainstorm and share their ideas. One group was for students who chose to do creative writing on health and exercise. The teacher listened to their discussion and found that their work lacked scientific and technological elements, and that they had not considered the social implications of the issues involved.

The teacher refrained from giving instructions for improvement right away. Instead, she suggested that the group list the scientific and technological terms and concepts in their writing. At first, the students were not sure what to do. The teacher therefore reminded them about some health-related concepts they had learnt, such as obesity, eating habits and eating disorders. The students responded by citing more relevant scientific terms and concepts, though in a disorganised manner.

The teacher encouraged them to elaborate, and to suggest ways of organising the concepts in their stories, such as linking up the main ideas with concept maps or tables. One student linked up one of the major themes of her story (weight control) with the factors affecting body weight, namely nutrition, exercise and genetic factors. Some students added the concept of balance between daily energy intake and output, so as to highlight the importance of scientific knowledge to making informed decisions on health-related issues. Students found that, with the teacher's guidance, their stories were now enriched with more scientific elements.

The teacher also helped to channel peer discussion into constructive feedback on each other's work. For example, a student disclosed in a peer discussion that she ate as little as possible in order to control her weight. Her peers disagreed with this, saying that if she lost her appetite in the process, she could become too thin. The teacher took the opportunity to intervene and asked them to discuss the side-effects and symptoms of eating disorders. The teacher also prompted them to discuss the popularity of slimming in local society and its implications as a health-related issue. She widened the scope of the dialogue by attending to students' own interests and linking them up to broader issues and concerns.

Quality Debriefing to Guide Issue-enquiry

A Science and Technology (S&T) (S4–5) teacher in St. Antonius Girls' College spent a lesson on slimming as a health issue. The lesson aimed to develop students' ability to critically evaluate information and data on the topic. The teacher designed several learning activities for the lesson and supplemented her debriefings between the activities.

The lesson started with a role-play activity. Students discussed and presented their preconceived criteria for selecting slimming products. Most of the groups listed criteria such as “effectiveness”, “no side-effects” and “low price”. Only one of the groups mentioned “scientific evidence” as an important criterion. In a debriefing, the teacher drew students' attention to this important but often neglected aspect. With this awareness, the class then focused on how to scientifically evaluate data and information in the next stage.

In the activity which followed, the students were asked to deliberate on the meaning of “reliable scientific evidence” and identify its key criteria from a list of descriptors. In another debriefing, the teacher consolidated their understanding of the criteria they chose by prompting them to clarify their meaning. For example, students explained that a “representative sample” refers to a group of subjects that is statistically acceptable in a scientific study for making estimates about the population as a whole.

The lesson closed with a group discussion in which they evaluated the scientific evidence claimed in the advertisements for some slimming products provided by the teacher. One group applied the notion of “representative samples” in its analysis, commenting that, since the advertisers did not provide the number and gender of the subjects tested, the reliability of the data could not be evaluated.

The debriefings conducted by the teacher between activities in this lesson guided the students to consolidate key concepts and necessary skills for further exploration of the topic.

Supporting Student Learning through Personal Digital Assistants (PDAs)

Two Science and Technology (S&T) (S4–5) teachers in Shun Tak Fraternal Association Yung Yau College experimented in the use of technology to help students learn. In a fieldwork with their students in the Hong Kong Wetland Park, the teachers made use of PDAs to enhance students' learning and promote teacher-student interaction.

In this activity, the school provided each student with a PDA, and all subsequent follow-up learning activities could be conducted by using the school's computer facilities. Prompted by a set of pre-entered questions in the PDAs, the students were asked to find out collaboratively the characteristics of the Wetland Park from the exhibits, and to input the answers into the PDAs, via which they should send their answers to a mobile laptop computer serving as a network server for consolidation and compilation. Through the network server, data were transmitted by the router to the teachers, who could monitor progress and give immediate help to students who had problems. Students could discuss the teacher feedback and revise their answers if needed.

The PDAs also enabled students to record their experience in the fieldwork with photographs, drawings and audio recordings saved in the memory card of the PDA instead of in writing. For example, a group of students discovered a bird in the mangrove which they could not name. They took a picture or a video clip of the bird and sent it out from the PDA via the wireless intranet to the teachers and other classmates, and those who knew about the bird made prompt responses. In other cases, the students described orally what they found during the field study and recorded it in their PDAs. They shared their findings with each other afterwards, and the teachers monitored and assessed their progress based on the recordings.

This arrangement facilitated the learning of the students who were weak in writing and had difficulty in jotting down their observations and the data collected. They were able to record their learning experiences during the outdoor activities in different digital formats, and consolidate their learning outcomes in post-fieldwork learning activities. The PDAs also allowed instant interaction among teachers and students, which was important for students who needed more support from others in learning.

A Classroom-based Learning Community Approach

A teacher in T.W.G.Hs. Mr. & Mrs. Kwong Sik Kwan Secondary School described his experience in adopting a classroom-based learning community approach in IH (S4–5).

Establishing common learning goals

- The teacher emphasises that the building of a learning community needs to start early. He briefs the S4 students at the start of school year on the nature and aims of the subject. He makes it clear from the start that he only plays a facilitating role and that what they learn from the subject depends on their own contribution to the learning process.
- The teacher involves the students in deciding on the breadth and depth of the curriculum. Thus, students have a strong sense of ownership of the learning goals.

Fostering a sharing culture

- The teacher encourages the students to share their views in class. Students are complimented for views with proper arguments, and are assured that they do not have to look for “correct” answers to the questions under discussion.
- Students are invited to comment on each other’s views, but they have to observe a “code of manners”. Respect for others is the key rule, and any personal criticism is strictly prohibited.
- As a model, the teacher always gives recognition and positive feedback to students’ contributions. He does not reject students’ ideas, even when they seem odd. Instead, he picks up their views as far as possible to stimulate further discussion.
- The teacher establishes an open and trusting atmosphere in the class. He addresses the students by their first names or nicknames during discussion; and, whenever appropriate, he encourages them to share their experiences by first sharing his own.
- He structures the learning tasks in a way that requires students to be interdependent. For example, he assigns each group of students to discuss only one dimension of an issue, so that they have to rely on other groups for a comprehensive understanding of the issue.

- He often selects examples of students' work to show to the class. The examples are chosen to illustrate some special insights and merits, but they do not necessarily receive the highest marks. The authors are invited to share their ideas, and the class is asked to discuss the strengths of the work and make a collective effort to improve it – a process which greatly expands the class's knowledge of the area being studied.

An Extended Learning Community

St. Catharine's School for Girls, Kwun Tong, has established close links among students and former students of Liberal Studies. They demonstrate the sense of a learning community, in which they not only share common learning goals, but also endeavour to extend the goals and pass them on to others.

A learning community with a tradition

It has become a tradition for S6 students of Liberal Studies to attend an orientation camp organised for the subject at the start of their sixth form study every year. The camp is organised by S7 students and some former students of the school, under the guidance of teachers, to acquaint the S6 students with what is involved in studying Liberal Studies. The camp provides a platform for students and alumni to share their experiences in learning the subject, and to pass on valuable learning goals across cohorts of students.

Contributions of members

The school enables the members of this learning community to contribute in various ways, e.g.,

- The school sets up a resource corner for Liberal Studies, and leaves it to the students to organise and manage it. The students contribute materials to the resource corner for everybody's reference and work in close collaboration to update and maintain it.
- The school lines up some former students to be the tutors for the Liberal Studies project. These alumni share their experiences and expertise with the S6 students and realise that they can learn from each other.

Extending the learning community

The Liberal Studies students once organised a "Green School Campaign" for primary schools in the neighbourhood to help the pupils to understand environmental protection. They took on different roles (e.g. master of ceremonies, activity designers, helpers on the site etc.) to make the programme a success. When planning the programme, the students engaged in considerable thinking, discussion and negotiation. Through sharing what they had learnt with the younger children, and applying their expertise in conducting the

programme, their confidence and self-esteem were enhanced. The programme allowed students to share knowledge and expand their knowledge to new horizons.

Sustaining the learning community

The alumni have a strong commitment to contribute to the learning and teaching of Liberal Studies in their mother school. Such enthusiasm has an immense impact on the students who have benefited from their interactions in the learning community. Therefore, with teachers as coordinators and advisors, students and former students from different cohorts are pleased to sustain the endeavour and are supportive of exploring the possibility of setting up a “Liberal Studies Student Society” in their mother school.

This example illustrates point E in Figure 4.3 on p. 94.

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Glossary

<u>Term</u>	<u>Description</u>
Applied Learning (ApL, formerly known as Career-oriented Studies)	Applied Learning is an essential component of the three-year senior secondary curriculum. ApL uses broad professional and vocational fields as the learning platform, developing students' foundation skills, thinking skills, people skills, positive values and attitudes and career-related competencies, to prepare them for further study/work as well as lifelong learning. ApL courses complement the 24 senior secondary subjects, adding variety to the senior secondary curriculum.
Assessment objectives	The outcomes of the curriculum to be assessed in the public assessments.
Co-construction	Different from the direct instruction and construction approaches to learning and teaching, the co-construction approach emphasises the class as a community of learners who contribute collectively to the creation of knowledge and the building of criteria for judging such knowledge.
Core subjects	Subjects recommended for all students to take at senior secondary level: Chinese Language, English Language, Mathematics and Liberal Studies.
Curriculum and Assessment (C&A) Guide	A guide prepared by the CDC-HKEAA Committee. It embraces curriculum aims / objectives / contents and learning outcomes, and assessment guidelines.
Curriculum interface	Curriculum interface refers to the interface between the different key stages/educational stages of the school curriculum (including individual subjects), e.g. the interface between Kindergarten and Primary; Primary and Secondary; and Junior Secondary and Senior Secondary. The Hong Kong school curriculum, made up of eight key learning areas (under which specific subjects are categorised), provides a coherent learning framework to enhance students' capabilities for whole person development through engaging them in the five essential learning experiences and helping them develop the nine generic skills as well as positive values and attitudes. Thus when students move on to senior secondary education, they will already have developed the basic knowledge and skills that the study of various subjects requires. When designing the learning and teaching content and strategies, teachers should build on the knowledge and learning experiences students have gained in the previous key stages.

<u>Term</u>	<u>Description</u>
Elective subjects	A total of 20 subjects in the proposed new system from which students may choose according to their interests, abilities and aptitudes.
Generic skills	Generic skills are skills, abilities and attributes which are fundamental in helping students to acquire, construct and apply knowledge. They are developed through the learning and teaching that take place in different subjects or key learning areas, and are transferable to different learning situations. Nine types of generic skills are identified in the Hong Kong school curriculum, i.e. collaboration skills, communication skills, creativity, critical thinking skills, information technology skills, numeracy skills, problem solving skills, self-management skills and study skills.
Hong Kong Diploma of Secondary Education (HKDSE)	The qualification to be awarded to students after completing the three-year senior secondary curriculum and taking the public assessment.
Internal assessment	This refers to the assessment activities that are conducted regularly in school to assess students' performance in learning. Internal assessment is an inseparable part of the learning and teaching process, and it aims to make learning more effective. With the information that internal assessment provides, teachers will be able to understand students' progress in learning, provide them with appropriate feedback and make any adjustments to the learning objectives and teaching strategies they deem necessary.
Key Learning Area (KLA)	Organisation of the school curriculum structured around fundamental concepts of major knowledge domains. It aims at providing a broad, balanced and coherent curriculum for all students in the essential learning experiences. The Hong Kong curriculum has eight KLAs, namely, Chinese Language Education, English Language Education, Mathematics Education, Personal, Social and Humanities Education, Science Education, Technology Education, Arts Education and Physical Education.
Knowledge construction	This refers to the process of learning in which learners are involved not only in acquiring new knowledge, but also in actively relating it to their prior knowledge and experience so as to create and form their own knowledge.
Learning community	A learning community refers to a group of people who have shared values and goals, and who work closely together to generate knowledge and create new ways of learning through active participation, collaboration and reflection. Such a learning community may involve not only students and teachers, but also parents and other parties in the community.

<u>Term</u>	<u>Description</u>
Learning differences	This refers to the gaps in learning that exist in the learning process. Catering for learning differences does not mean rigidly reducing the distance between the learners in terms of progress and development but making full use of their different talents as invaluable resources to facilitate learning and teaching. To cater to learners' varied needs and abilities, it is important that flexibility be built into the learning and teaching process to help them recognise their unique talents and to provide ample opportunities to encourage them to fulfil their potential and strive for achievement.
Learning outcomes	Learning outcomes refer to what learners should be able to do by the end of a particular stage of learning. Learning outcomes are developed based on the learning targets and objectives of the curriculum for the purpose of evaluating learning effectiveness. Learning outcomes also describe the levels of performance that learners should attain after completing a particular key stage of learning and serve as a tool for promoting learning and teaching.
Learning targets and learning objectives	<p>Learning targets set out broadly the knowledge/concepts, skills, values and attitudes that students need to learn and develop.</p> <p>Learning objectives define specifically what students should know, value and be able to do in each strand of the subject in accordance with the broad subject targets at each key stage of schooling. They are to be used by teachers as a source list for curriculum, lesson and activity planning.</p>
Level descriptors	A set of written descriptions that describe what the typical candidates performing a certain level is able to do in public assessments.
Other learning experiences	For whole person development of students, 'Other Learning Experiences' (OLE) is one of the three components that complement the examination subjects and Applied Learning (formerly named as Career-oriented Studies) under the senior secondary curriculum. It includes Moral and Civic Education, Aesthetics Development, Physical Development, Community Service and Career-related Experiences.
Public assessment	The associated assessment and examination system for the Hong Kong Diploma of Secondary Education.
SBA Moderation Mechanism	The mechanism adopted by HKEAA to adjust SBA marks submitted by schools to iron out possible differences across schools in marking standards and without affecting the rank order determined by the school.

<u>Term</u>	<u>Description</u>
School-based assessment (SBA)	Assessments administered in schools as part of the teaching and learning process, with students being assessed by their subject teachers. Marks awarded will count towards students' public assessment results.
School-based curriculum	Schools and teachers are encouraged to adapt the central curriculum to develop their school-based curriculum to help their students to achieve the subject targets and overall aims of education. Measures may include readjusting the learning targets, varying the organisation of contents, adding optional studies and adapting learning, teaching and assessment strategies. A school-based curriculum is therefore the outcome of a balance between official recommendations and the autonomy of the schools and teachers.
Standards-referenced Reporting	Candidates' performance in public assessment is reported in terms of levels of performance matched against a set of standards.
Student diversity	Students are individuals with varied family, social, economic and cultural backgrounds and learning experience. They have different talents, personalities, intelligence and interests. Their learning abilities, interests and styles are, therefore, diverse.
Student learning profile	It is to provide supplementary information on the secondary school leavers' participation and specialties during senior secondary years, in addition to their academic performance as reported in the Hong Kong Diploma of Secondary Education, including the assessment results for Applied Learning courses, thus giving a fuller picture of the student's whole person development.
Values & attitudes	Values constitute the foundation of the attitudes and beliefs that influence one's behaviour and way of life. They help form principles underlying human conduct and critical judgment, and are qualities that learners should develop. Some examples of values are rights and responsibilities, commitment, honesty and national identity. Closely associated with values are attitudes. The latter supports motivation and cognitive functioning, and affects one's way of reacting to events or situations. Since both values and attitudes significantly affect the way a student learns, they form an important part of the school curriculum.

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The references listed here will be posted to the Web-based Resource Platform for Liberal Studies (<http://ls.edb.hkedcity.net>) and updated according to needs.

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General

<u>Address</u>	<u>Name of Homepage</u>
(1) http://ls.edb.hkedcity.net	Web-based Resource Platform for Liberal Studies 通識教育科網上資源平台

Self & Personal Development

Personal Development & Interpersonal Relationships

<u>Address</u>	<u>Name of Homepage</u>
(1) http://www.hkfyg.org.hk/new/	Hong Kong Federation of Youth Groups—Youth Studies 香港青年協會——青年調查
(2) http://www.family-land.org	Social Welfare Department—Family Life Education Resource Centre—Family Life Education 社會福利署家庭生活教育資料中心——家庭生活教育
(3) http://www.youthink.worldbank.org/	Youthink!
(4) http://www.eoc.org.hk/EOC/GraphicsFolder/InforCenter/MediaCentre/VideoList.aspx	平等機會委員會——資訊及物品——影片放送
(5) http://www.harmonyhousehk.org/chi/publicimage/pub1_chi.asp	和諧之家——出版刊物
(6) http://www.uzone21.com	勇想廿一
(7) http://www.consumer.org.hk/website/ws_chi/newscouncil_activities/list.html	消費者委員會——消費者教育
(8) http://www.aaf.org.hk/big5/article_listing.adp?category_id=13	新婦女協進會——議題

Society & Culture

Hong Kong Today

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(1) http://www.cuhk.edu.hk/ant/publish/	Anthropology Department, The Chinese University of Hong Kong—Department Publications
(2) http://www.breakthrough.org.hk/	Breakthrough Ltd. 突破機構
(3) http://www.hku.hk/hkcsp/ccex.html	Cyber Culture Express, Hong Kong Culture and Society Programme, Centre of Asian Studies, The University of Hong Kong
(4) http://www.eoc.org.hk	Equal Opportunities Commission 平等機會委員會
(5) http://www.socialdemocracy.org.hk/	Hong Kong Foundation for Social Democracy 香港社會民主基金會
(6) http://www.censtatd.gov.hk/statistical_literacy/educational_materials/statistics_and_you/index.jsp	HKSAR Government—Census and Statistics Department—Statistical Literacy and Students' Corner—Educational Materials—Statistics and You
http://www.censtatd.gov.hk/statistical_literacy/educational_materials/statistics_and_you/index_tc.jsp	香港特別行政區政府統計處——統計認知及學生專區——教育材料——統計資料與你息息相關

	<u>Address</u>	<u>Name of Homepage</u>
(7)	http://www.legco.gov.hk	Legislative Council of the HKSAR of the PRC 中華人民共和國香港特別行政區立法會
(8)	http://www.octs.org.hk/	One Country Two Systems Research Institute 一國兩制研究中心
(9)	http://www.info.gov.hk/basic_law/front.html http://www.info.gov.hk/basic_law/c-front.html	The Basic Law of the HKSAR of the PRC 中華人民共和國香港特別行政區基本法
(10)	http://www.info.gov.hk/	The Government of the HKSAR of the PRC 中華人民共和國香港特別行政區政府
(11)	http://www.sepi.org/	社會經濟政策研究所
(12)	http://www.women.gov.hk/eng/home.html http://www.women.gov.hk/big5/home.html	Women's Commission 婦女事務委員會
(13)	http://hkpoverty.oxfam.org.hk/	樂施會——香港脫貧網

Modern China

	<u>Address</u>	<u>Name of Homepage</u>
(1)	http://www.chinaelections.org/en/ http://www.chinaelections.org/index.asp	China Elections & Governance 中國選舉與治理
(2)	http://www.china.org.cn/english/index.htm http://www.china.com.cn/chinese/index.htm	China Internet Information Center 中國網
(3)	http://chinainfo.oxfam.org.hk/	Oxfam Hong Kong—China Information Website 樂施會——樂施中國信息網
(4)	http://english.peopledaily.com.cn/ http://www.peopledaily.com.cn	People's Daily Online 人民網
(5)	http://english.gov.cn/ http://www.gov.cn/	The Central Peoples' Government of the PRC 中華人民共和國中央人民政府
(6)	http://www.npc.gov.cn/zgrdw/home/index.jsp	The National People's Congress of the PRC 中國人大網
(7)	http://www.chinaview.cn/ http://www.xinhuanet.com/	Xinhua Online—China View 新華網
(8)	http://www.chinawater.net.cn/popularization/	中國水利國際合作與科技網——科普園地
(9)	http://www.chinavillage.org/	中國農村村民自治信息網
(10)	http://www.china-village.org/	中國鄉村網
(11)	http://www.cte.gov.cn	中國鄉鎮企業信息網

Globalization

	<u>Address</u>	<u>Name of Homepage</u>
(1)	http://www.globalization101.org/	Center for Strategic and International Studies—Globalization101.org
(2)	http://www.corpwatch.org/	CorpWatch
(3)	http://www.greenpeace.org/international/	Greenpeace International
(4)	http://www.ifg.org/	International Forum on Globalization
(5)	http://www.oxfam.org.uk/coolplanet/index.htm	Oxfam—Cool Planet for teachers
(6)	http://www.oxfam.org.hk/public/contents/category?cid=2711	Oxfam Hong Kong—Mini Sites 樂施會——專題網站
(7)	http://www.ase.org.uk/htm/ase_global/index1.php	The Association for Science Education—ASE Global
(8)	http://hdr.undp.org/	United Nations Development Programme—Human Development Reports
(9)	http://www.youthink.worldbank.org/	World Bank—Youthink!
(10)	http://yaleglobal.yale.edu/index.jsp	Yale Center for the Study of Globalization—YaleGlobal Online

Science, Technology & the Environment

Public Health

	<u>Address</u>	<u>Name of Homepage</u>
(1)	http://www.bbc.co.uk/schools/gcsebitesize/history/medicine/index.shtml	BBC website—Bitesize revision—GCSE History—Medicine through time
(2)	http://www.cdc.gov	Department of Health and Human Services—Centers for Disease Control and Prevention
(3)	http://www.cheu.gov.hk/	HKSAR Government—Department of Health—Central Health Education Unit—Health Zone 香港特別行政區政府——衛生署——中央健康教育組——健康地帶
(4)	http://www.info.gov.hk/fehd	HKSAR Government—Food and Environmental Hygiene Department 香港特別行政區政府——食物環境衛生署
(5)	http://www.drreddy.com/shots/index.html#infectwhat	Dr. Reddy's Pediatric Office on the Web—Infections and Immunizations
(6)	http://www.cuhk.edu.hk/en/research.htm	The Chinese University of Hong Kong—Research and Development
(7)	http://www.cuhk.edu.hk/b5/research.htm	香港中文大學——研究及發展
(7)	http://www.mayoclinic.com	Mayo Foundation for Medical Education and Research
(8)	http://www.un.org/works/	The UN Works
(9)	http://www.ied.edu.hk/biotech/index.htm	To Promote Biotechnology Education 香港教育學院——推廣生物科技教育
(10)	http://www.who.int/csr/en	World Health Organization—WHO Sites—Epidemic and Pandemic Alert and Response (EPR)
(11)	http://www.youthink.worldbank.org/	World Bank—Youthink!

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	<u>Address</u>	<u>Name of Homepage</u>
(1)	http://inventors.about.com/	About.com—Business & Finance—Inventors
(2)	http://www.think-energy.com/	British Gas Trading Limited—Think Energy
(3)	http://www.susdev.org.hk/	Council for Sustainable Development 可持續發展委員會
(4)	http://www.earthday.net/default.aspx	Earth Day Network
(5)	http://www.ecc.org.hk/	Environmental Campaign Committee 環境保護運動委員會
(6)	http://www.foe.org.hk/	Friends of the Earth (HK) 香港地球之友
(7)	http://www.nrglink.com/	Green Energy News
(8)	http://www.greenpeace.org/china/en/	Greenpeace China
(8)	http://www.greenpeace.org/china/ch/	綠色和平 (中國)
(9)	http://www.greenpeace.org/international/	Greenpeace International
(10)	http://www.greenpower.org.hk/	Green Power 綠色力量
(11)	http://www.afcd.gov.hk/	HKSAR Government—Agriculture, Fisheries and Conservation Department 香港特別行政區政府——漁農自然護理署
(12)	http://www.energyland.emsd.gov.hk/	HKSAR Government—Electrical and Mechanical Services Department—Energyland 香港特別行政區政府——機電工程署——能源資訊園地
(13)	http://www.epd.gov.hk/epd/	HKSAR Government—Environmental Protection

	<u>Address</u>	<u>Name of Homepage</u>
		Department 香港特別行政區政府——環境保護署 HKSAR Government—Hong Kong Environment, Transport and Works Bureau
(14)	http://www.etwb.gov.hk/	香港特別行政區政府——環境運輸及工務局 Hong Kong Waste Management Association 香港廢物管理學會
(15)	http://www.hongkongwma.org.hk/	Oxfam—Cool Planet for teachers
(16)	http://www.oxfam.org.uk/coolplanet/index.htm	Produce Green Foundation 綠田園基金
(17)	http://www.producegreen.org.hk/	Promotion of Environmental Protection Awareness (PEPA) 綠色教育先鋒
(18)	http://www.pepa.com.hk/	Sustainable Development Information System (SDinfo)
(19)	http://www.sdinfo.gc.ca/main_e.cfm	State Environmental Protection Administration of China 國家環境保護總局
(20)	http://www.zhb.gov.cn/	The Conservancy Association 長春社
(21)	http://www.conservancy.org.hk/	The United Nations—UN Department of Economic and Social Affairs—Division for Sustainable Development
(22)	http://www.un.org/esa/sustdev/index.html	The UN Works
(23)	http://www.un.org/works/	World Bank
(24)	http://www.worldbank.org/ http://www.youthink.worldbank.org/	World Bank—Youthink!
(25)	http://www.panda.org/	WWF
(26)	http://www.wwf.org.hk/	WWF Hong Kong 世界自然(香港)基金會
(27)	http://www.wwfchina.org/	WWF China 世界自然基金會中國網站

Independent Enquiry Study

	<u>Address</u>	<u>Name of Homepage</u>
(1)	http://www.bie.org/pbl/index.php	Buck Institute for Education—Project-based Learning
(2)	http://www.civiced.org/project_citizen.php	Center for Civic Education—We the People: Project Citizen
(3)	http://www.designandtech.com	Design and Tech
(4)	http://www.howstuffworks.com	How Stuff Works
(5)	http://scifieditor.com/index.htm	Science Fiction Editor
(6)	http://www.graphic.org/index.html	The Graphic Organizer
(7)	http://tds.ic.polyu.edu.hk/index.htm	The Hong Kong Polytechnic University—Industrial Centre—The Technology and Design Studies (TDS) Unit
(8)	http://slits.cite.hku.hk/pages/index.htm	University of Hong Kong, Faculty of Education—CITE—Self-directed Learning with Information Technology Scheme (SLITS) 香港大學教育學院——教育應用資訊科技發 展研究中心——資訊年代青年自學才能拓展 計劃
(9)	http://www.cmi.hku.hk/project/project.html	香港大學教育學院母語教學教師支援中 心——專題研習
(10)	http://liberal-studies.net/	香港中文大學社會學系通識教育支援網

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Membership of the CDC-HKEAA Committee on Liberal Studies (Senior Secondary) and its Working Groups

(From November 2003 to September 2013)

Chairperson:	Prof CHIU Wing-kai, Stephen	(Member: until December 2008) (Chairperson: from January 2009)
	Mr LAI Shu-ho, Patrick	(until December 2008)
Members:	Mr CHEUNG Yui-fai	(from May 2011)
	Dr CHU Shun-chi, Donna	(until September 2012)
	Mrs HO LEE Doen-yee	(from May 2011)
	Dr HUI Po-keung	(until November 2010)
	Mr KWAN Wing-bun	
	Dr LAU Shek-lam, Stephen	
	Mr LEE Ho-fan	(from December 2004)
	Mr LI Wing-leung	
	Dr LI Yuk-keung, Daniel	(from April 2008)
	Dr LO Tin-yau, Joe	(until February 2008)
	Mr LUK Yiu-ming	(from May 2011)
	Ms MAU Kwok-kwong, Brenda	
	Mrs PUN LAM Chun	(until August 2006)
	Dr SIU Wing-hon	
	Dr TANG Kang, John	(until August 2004)
Dr WONG Kwok-ye, Michael	(until January 2013)	
Ex-officio Members:	Mr LEE Chi-hung (EDB)	(from January 2005 until September 2006)
	Mr LO Ka-yiu (HKEAA)	
	Dr TAN Kang, John	(from October 2006 to January 2009)
	Mr WONG Chi-kin	(until December 2004)
	Mr YIU Ming-tak, James (EDB)	(from November 2010)
Secretary:	Ms Gloria CHAN (EDB)	(from September 2012)
	Mr FONG Yiu-chak (EDB)	(until September 2006)
	Mr HO Nang-kwok	(from October 2006 to January 2007)
	Mrs HO WONG Shiu-fung, Alice (EDB)	(from November 2010 to August 2012)
	Mr KWAN Wai-wah	(from July 2007 to January 2009)

Working Group on the Area of Self & Personal Development

(From January 2005 to September 2013)

Members:	Ms CHEUNG Shuk-yee, Alice	
	Dr. CHIU Wing-kai, Stephen	
	Ms HUNG Lai-ting, Venus (EDB)	(until August 2005)
	Dr. LAU Shek-lam, Stephen	
	Ms MAU Kwok-kwong, Brenda	
	Mr. NG Kwok-ming	
	Mr. OR Chuen-san, Albert	
	Ms TANG Suk-ying	
	Ms YUEN Wai-fan, Canny (EDB)	(from March 2005)

Working Group on the Area of Society & Culture

(From January 2005 to September 2013)

Members:	Mr. CHEUNG Yui-fai	
	Dr. CHU Shun-chi, Donna	
	Mr. FONG Yiu-chak (EDB)	(until September 2006)
	Mr. HO Nang-kwok (EDB)	(from October 2006)
	Mr. HUI Man-chung	
	Mr. KWAN Wing-bun	
	Mr. LEE Chi-hung (EDB)	(until September 2006)
	Dr. LI Kit-chuen (EDB)	(from October 2006)
	Dr. LO Tin-yau, Joe	
	Mr. WAN Ho-yin	
	Mr. YIU Ming-tak, James (EDB)	(until September 2006)

Working Group on the Area of Science, Technology & the Environment

(From January 2005 to September 2013)

Members: Ms. CHEUNG Yuen-yuen, Priscilla
Dr. HUI Po-keung
Dr. LI Kit-chuen
Mr. LI Wing-leung
Mr. LO Chi-lap (EDB)
Dr. SIU Wing-hon
Ms TAM Chong-ling, Joan
Dr. WONG Kwok-ye, Michael

Working Group on Independent Enquiry Study

(From January 2005 to September 2013)

Members: Mr. CHAN Chi-tat (from April 2005)
Dr. CHAN Lung-sang (from April 2005)
Dr. CHAN Wah-lun (EDB) (from October 2006)
Dr. CHENG May-hung, May
Mrs. HO LEE Doen-ye
Mr. KWAN Wai-wah (from October 2005)
Mr. LEE Chi-hung (EDB) (until September 2006)
Mr. LEE Ho-fan
Mr. LO Ka-yiu (HKEAA)
Mr. LUK Yiu-ming
Mrs. PUN LAM Chun (until August 2006)
Dr. TAN Kang, John (EDB) (from October 2006)
Mr. WONG Chi-kin (EDB) (from October 2006))
Mr. WONG Koon-shing (from October 2005)
Ms WONG Siu-ping, Sincere (EDB) (until September 2006)
Mr. YIU Ming-tak, James (EDB) (until September 2006)

Working Group on Written Examination (formerly Public Assessment)

(From May 2006 to September 2013)

Members:

Dr. CHAN Kwai-kuen, Carol

Dr. FUNG Tze-ho, Eric (HKEAA)

Mr. HO Lik-ko

Dr. LAU Shek-lam, Stephen

Mr. LEE Chi-hung (EDB) (until September 2006)

Mr. LIU Kwok-hung, Charles (EDB)

Mr. LO Ka-yiu

Mr. LUK Yiu-ming

Dr. SIU Wing-hon

Dr. TAN Kang, John (EDB) (from October 2006)

Mr. YIU Ming-tak, James (EDB) (until September 2006)

Mr. YIU To-sang

Membership of the CDC-HKEAA Committee on Liberal Studies

(From September 2013 – August 2015)

Chairperson: Prof CHIU Wing-kai, Stephen

Members: Mr CHENG Kai-lam
Ms CHIN Kwan-ying
Prof HO Kin-chung
Mr HO Moon-tim
Mr HUI Shing-yan
Dr LEUNG Wing Tai
Mr LIU Ah-chuen
Ms SIN Kit-mui
Prof SO Wing-mui, Winnie
Mr TANG Fei

Ex-officio Members: Mr YIU Ming-tak, James (EDB)
Mr LO Ka-yiu (HKEAA)

Secretary: Ms CHAN Pik-wa, Gloria (EDB)