

Foreword

Learning is the key to one's future, and Education is the gateway to our society's tomorrow.

Education enables individuals to develop their potentials, construct knowledge and enhance personal quality. It empowers the individuals. Education is not only preparing qualified personnel for the society, it has a more far-reaching mission of giving everyone, regardless of social origin or family background, equitable opportunities for personal advancement. No one is deprived of such opportunities for self-development and success, if only he has the ability and determination to fully exploit the learning opportunities. Hence, education creates opportunities and facilitates social mobility.

“Students” are the focal point of this entire reform, “life-long learning” and “all-round development” the spirit. At the basic education level, the goal is to ensure that every student attain the basic competencies, while those with greater potentials be allowed to further excel. At the senior secondary and post-secondary level, a diversified and multi-channel education system will be introduced to provide more opportunities and choices. Students, according to their different aptitudes and abilities, will then be able to select their own path of learning, and we can witness the emergence of a society for life-long learning.

During the consultations, there were concerns that the Education Commission was, in the name of equity, proposing reforms at the expense of the elites. Critics were also worried that while learning should be enjoyable, academic standards would be sacrificed. We must emphasize that the enhancement of the standard of students in general is never in conflict with the nurturing of academic excellence. Instead, we believe that all students have vast potentials, and education enables them to fully develop. Excellence is essential for the society, but a monolithic educational system can only produce elites in the very narrow sense of the word. The elites we need today are multifarious, and only a multifarious educational system, with diversified curricula, teaching methods and assessment mechanisms can produce the multi-talented people expected by the society. Similarly, learning should be enjoyable, and it does not follow that students will not work hard. It is only through hard work and achievements that they will derive satisfaction and

joy. “All-round development” is never the excuse for the lowering of academic standards, but rather the call for students to achieve a wider spectrum of competencies.

The public has responded enthusiastically to the reform proposals. Throughout the three different phases of consultation, we have altogether received over 30,000 written submissions, and numerous comments were collected from various channels. The public agrees to the principles and directions of the reform in general, but there are also worries that the scope of the reform is too broad and there would be too many drastic changes which teachers, students, parents and other parties would find difficulties in adapting to such changes. We have to point out that the various parts of the educational system are mutually related. It would be impossible, for instance, to reform the curriculum without reforming the allocation system and university admissions. Therefore, we are of the belief that, to raise the quality of education, the reform could not be piece-meal and have to be comprehensive. However, we are very conscious that in the course of implementation, whilst we should have a clear direction, we have to move with great prudence, sometimes only with incremental steps. We therefore would urge the Government that it should make sure that all parties work in planned coherence towards our goals.

Life-long learning and all-round education are not achievable without the active and enthusiastic engagement of front-line educators. Parents, and for that matter the society at large, must also embrace this cultural change and lend their support. The success of the education reform, in the final analysis, depends on the dedication and involvement of each and every one of us.

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Chapter 1 : Review of Education System – Objectives, Scope and Process

Objectives and Scope of the Review

1.1 Our future lies in today's education. The system, modes, content and teaching methods of our education system must keep up with the environment and needs of society in the 21st Century.

1.2 Reviewing the education system is an important part of the overall education reform package. The Education Commission (EC) has comprehensively reviewed the existing education system in Hong Kong and formulated a blueprint for the development of education in the 21st Century according to the latest trends of development and society's needs in the future. The overall direction of the education reform is to create more room for schools, teachers and students, to offer all-round and balanced learning opportunities, and to lay the foundation for lifelong learning. It will lay the favourable conditions for Hong Kong to become a diverse, democratic, civilized, tolerant, dynamic and cultured cosmopolitan city.

1.3 The review of the education system includes the curricula, the academic structure and the assessment mechanisms at various stages, as well as the interface between different stages of education.

Process

Systematic and phased approach

1.4 The EC started this review in early 1998. Owing to the wide-ranging and complicated issues involved, the review was conducted in three phases:

Phase I: Aims of education in the 21st Century

Phase II: Direction and overall framework for reforming the education system

Phase III: Proposals for the reform of the education system

Establishment of working groups

1.5 The EC has set up two working groups and nine sub-groups, bringing in a pool of over a hundred experienced educators and members of the public to participate in the review (please refer to Appendix I for the name lists of the group members). During the review, the EC and its group members frequently exchanged ideas with various sectors of the community and conducted in-depth analyses into the pros and cons as well as feasibility of different reform proposals.

Drawing on international experiences

1.6 As an international city, Hong Kong is intimately related to the trends of development elsewhere in the world. During the review, we collected information on the development of education systems elsewhere and commissioned comparative studies in specific areas as references.

Extensive consultation and pooling of wisdom

1.7 The EC conducted three rounds of consultation -

- First round of consultation : from 22nd January to 6th March 1999
- Second round of consultation : from 22nd September to 15 December 1999
- Third round of consultation : from 8th May to 31st July 2000

1.8 The EC and its various group members participated in over three hundred consultation sessions which took the form of forums, seminars, interviews, and group discussion. During these sessions, different sectors of the society were consulted on the aims of education, the direction and proposals of the education reform. The views gathered during each phase of the review were analyzed, collected and fed into the work for the next phase. During the three rounds of consultation, the EC received over 30,000 written suggestions and comments, which was clear evidence of the interest and concern of different sectors of our community about the education reform.

Chapter 2 : Summary

*Building an education system
conducive to lifelong learning and all-round development*

Achieving the aims of education for the 21st Century

Background to the Education Reform

2.1 The world is undergoing unprecedented changes, and Hong Kong is no exception. We are seeing substantial changes in the economic structure and the knowledge-based economy is here to stay. Hong Kong is also facing tremendous challenges posed by a globalized economy. Politically, reunification with China and democratization have changed the ways Hong Kong people think and live. Our social structure is fast evolving and there is an urgent need to alleviate the disparity of wealth. The society is adapting its culture and mindframe to these changes. The rapid development of information technology has opened up new domains in all aspects of our lives and creating new challenges.

2.2 In the tide of changes, everyone has to meet new challenges. Adaptability, creativity and abilities for communication, self-learning and cooperation are now the prerequisites for anyone to succeed, while a person's character, emotional qualities, horizons and learning are important factors in achieving excellence. "Lifelong Learning and All-round Development" is our expectation of everyone in this era. Education is infinitely important for everyone.

2.3 We share a common wish for Hong Kong to be a diverse, democratic, civilized, tolerant, dynamic and cultivated cosmopolitan city. Obviously, the development of education bears upon the equity and balance of our society. Hence, an important mission of education is to enhance the knowledge, ability, quality, cultivation and international outlook of the people of Hong Kong.

2.4 Education in Hong Kong is endowed with some very fine traditions. Our education system is infused with the essence of eastern and western cultures, preserving the basic elements of traditional Chinese education while absorbing the most advanced concepts, theories and

experiences from modern western education. Parents and the community attach great importance to the education for our young people. Many of our high quality schools have produced large numbers of outstanding students who have played key roles in both our society and at the international level. For Hong Kong education to meet the expectations of society and fulfill its historic mission, we should spare no effort in preserving and promoting these good traditions.

2.5 Nevertheless, we must address the inadequacies within the existing education system to enable the majority of Hong Kong people to achieve lifelong learning and all-round education. All in all, despite the huge resources put into education and the heavy workload endured by teachers, learning effectiveness of students remains not very promising; learning is still examination-driven and scant attention is paid to “learning to learn”. School life is usually monotonous, students are not given comprehensive learning experiences with little room to think, explore and create. The pathways for lifelong learning are not as smooth as they should be. To make up for these weaknesses, we need to uproot outdated ideology and develop a new education system that is student-focussed.

Aims of Education for the 21st Century

2.6 During the first round of consultation, the Education Commission (EC) invited members of the public to participate in drawing up the aims of education in Hong Kong for the 21st Century. The community at large generally agreed that the overall aims of education for the 21st Century should be:

To enable every person to attain all-round development in the domains of ethics, intellect, physique, social skills and aesthetics according to his/her own attributes so that he/she is capable of life-long learning, critical and exploratory thinking, innovating and adapting to change; filled with self-confidence and a team spirit; willing to put forward continuing effort for the prosperity, progress, freedom and democracy of their society, and contribute to the future well-being of the nation and the world at large.

Our priority should be to enable our students to enjoy learning, enhance their effectiveness in communication and develop their creativity and sense of commitment.

Vision of the Reform

2.7 To achieve the aims of education for the 21st Century, the education reform must be backed up by comprehensive planning, multi-faceted coordination and participation by the whole society. We aim to realize the following vision:

- **To build a lifelong learning society:** to develop Hong Kong into a society that values lifelong learning, so that everyone enjoys learning, has the attitude and ability for lifelong learning, and has access to diverse channels and opportunities for learning.
- **To raise the overall quality of students:** to improve the overall quality of our society through upgrading the knowledge, ability and attitude of all students.
- **To construct a diverse school system:** to inject diversity in education ideologies, modes of financing and focus of curriculum, so that learners have more choices and multi-faceted talents will be nurtured.
- **To create an inspiring learning environment:** to build a learning environment that is inspiring and conducive to the creative and exploratory spirit.
- **To acknowledge the importance of moral education:** to provide students with structured learning experiences in the areas of moral, emotional and spiritual education.
- **To develop an education system that is rich in tradition but cosmopolitan and culturally diverse:** to help students develop an international outlook so that they can learn, work and live in different cultural environments.

Principles of the Reform

2.8 In setting the direction and formulating the proposals for reform, the EC has adopted the following principles –

- Student-focused
- “No-loser”
- Quality
- Life-wide learning
- Society-wide mobilisation

Focuses of the Reform

2.9 The key to the realization of the above vision is to create favourable conditions for students to develop their ability and quality, while leaving room for frontline educators to put their aspirations into practice. The following are the focuses of the whole reform package:

- Reforming the admission systems and public examinations so as to break down barriers and create room for all
- Reforming the curricula and improving teaching methods
- Improving the assessment mechanism to supplement learning and teaching
- Providing more diverse opportunities for lifelong learning at senior secondary level and beyond
- Formulating an effective resource strategy
- Enhancing the professionalism of teachers
- Implementing measures to support frontline educators

2.10 As an important part of the overall reform, the review of the education system has centred on the academic structure, the curricula and the assessment mechanism of various stages of education, and the interface between different stages. Therefore, this report will mainly cover the first five focuses listed above. Nevertheless, the EC, the Education and Manpower Bureau (EMB) and the Education Department (ED) had done preparatory work in other key areas of education, while the review was being conducted, to facilitate the effective implementation of the education reform.

The Blueprint of Reform

2.11 After going through twenty months of study and consultation, and taking into consideration public opinions, we put forward the following proposals for reforming the academic structure, the curricula and the assessment mechanism of various stages of education and the interface between different stages as follows.

(1) Academic Structure

(i) *Early Childhood Education*

2.12 Since kindergartens (KGs) and child care centres (CCCs) differ in their focuses of services, we should, in keeping with the principle of promoting diversity, allow different systems and service providers to retain their own characteristics to fulfil the needs of the people they serve.

2.13 We propose to study actively the feasibility of having a single regulatory authority to monitor KGs and CCCs.

(ii) *Nine-year Basic Education*

2.14 Basically, the academic structure of six-year primary and three-year junior secondary education will be maintained. However, primary and secondary schools with the same ideology in the running of schools will be encouraged to link together as “through-train schools”. The consistency in curricula, teaching methodology and personal development of students will provide students with coherent learning experiences in the true spirit of “no loser”.

(iii) *Senior Secondary Education and Matriculation*

2.15 We would like to see the development of a diversified and multi-channelled system for senior secondary education, which includes different categories of education institutions such as ordinary schools, senior secondary colleges and vocational training institutes, allowing students to make their choices according to their aptitude and ability.

2.16 If senior secondary and sixth form education were combined into three-year senior secondary education, students would have a more coherent and multifaceted learning life, the links with the tertiary education programme in other regions will be enhanced and local universities would have more room to reform their admission systems. However, a host of problems have to be solved before three-year senior secondary education can be put in place, and the feasibility of such a system needs to be further assessed.

(iv) ***Higher Education***

2.17 We encourage the development of a diversified, multi-channelled, flexible system for higher education that will allow credit units to be freely transferable. The establishment of tertiary education institutions with different modes of operation will also be promoted, so that learners will have more opportunities for higher education.

2.18 If a three-year system for senior secondary education were to be implemented, universities should study the need to adjust the length of study for certain first degree programmes and how to solve the resource-related problems.

(v) ***Continuing Education***

2.19 The length and modes of study should become more flexible and diversified. Providers of continuing education need to ensure that their modes of operation are in tune with social changes and learners' needs.

(2) **The Curriculum**

(i) ***Early Childhood Education***

2.20 The curriculum at this stage should focus on enabling children to experience group life in a pleasurable and rich learning environment that can inspire their curiosity and quest for knowledge, while cultivating in them an interest in learning and good living habits. The curriculum should be designed in the light of children's psychological and intellectual growth.

(ii) ***Nine-year Basic Education***

2.21 The curriculum at this stage should focus on developing students' basic knowledge and abilities, including positive attitude and values, judgment, the capability for independent thinking, critical analysis and problem-solving and team-work, as well as adaptability, creativity, organizational skills and communication skills. These will help them lay a good foundation for life-long learning and all-round development.

2.22 The curriculum should be reformed to become more flexible, diversified and integrated. Through more flexible time-tabling, the use of more diverse teaching materials, the integration of all-round learning activities both inside and outside the classroom, inspiring teaching methods as well as diversified assessment mechanisms, students will become more proactive in their learning, and they will "learn how to learn".

(iii) ***Senior Secondary Education***

2.23 Apart from consolidating the basic knowledge, abilities and attitudes mentioned above, students should be provided with multi-faceted experiences to explore their own aptitudes and strengths, so that they will be better prepared for further study and future employment.

2.24 Premature streaming should be avoided, so that students can choose the best combination of subjects across various disciplines. Students should, according to their aptitudes and abilities, choose between curricula of different emphases, including curricula with a practical or vocational slant.

(iv) ***Higher Education***

2.25 Universities are recommended to review the functions, contents, focuses and modes of teaching of their first-degree programmes, so as to strike the right balance between the breadth and the depth of such programmes. This would, in addition to helping students master the necessary knowledge and skills for specific professions/disciplines, give them exposure to other learning areas and help them develop a sense of integrity, positive attitude, a broad vision and important generic skills.

(v) ***Continuing Education***

2.26 The curriculum for continuing education should become more flexible, diversified and internationalized, and should constantly adapt to society's changes and learners' needs.

2.27 Co-operation with overseas tertiary institutions can be stepped up in order to draw on the experience and expertise elsewhere in continuing education. The best use of information technology should be made to further promote life-long learning. The feasibility of "work-based learning programme" jointly organized by employers and providers of continuing education should also be explored.

(3) **Assessment Mechanism**

(i) ***Internal Assessment Mechanism***

2.28 The major function of internal assessment is to facilitate learning and teaching and help teachers understand the learning progress and needs of their students. It should be used as a reference for planning the curriculum, designing teaching methods and giving guidance to individual students to enhance the effectiveness of learning and teaching.

2.29 We recommend the use of various modes of assessment, including flexible formative assessment. Quantitative assessment should be minimized to make way for more analytical assessment that produces a more comprehensive picture of the performances and needs of students in different areas. Excessive dictation exercises, mechanical drilling, tests and examinations should be eliminated to allow students more time to participate in useful learning activities.

2.30 We propose to put in place Basic Competency Assessments in Chinese, English and Mathematics at various stages of basic education to make learning and teaching more effective, and to strengthen remedial and enhancement measures.

(ii) *External Assessment Mechanism*

2.31 Vis-à-vis internal assessment, public examination serves the functions of certification and selection, playing a crucial role in directing students' learning.

2.32 We recommend to improve the examination system starting from the modes, contents and assessment methods. A flexible examination approach can give students more room for creative and independent thinking. Linking the content of examinations with students' experiences in daily lives will raise their interest in learning and will encourage them to put more time and effort on useful learning activities. As regards assessment methods, including an appropriate element of teachers' assessments will help to better examine those abilities that are not easily assessed through written tests (for example, the ability to organize, communicate and work with others). In this way, students are encouraged to participate in diversified learning activities and develop multi-faceted abilities.

2.33 A new public examination would have to be established to replace the existing Hong Kong Certificate Examination of Education (HKCEE) and the Hong Kong Advanced Level Examination (HKALE) if the three-year senior secondary education system were to be adopted. The EC recommends to further study this proposal when it examines the proposed senior secondary education system.

(4) Interface of Different Education Stages

(i) *Primary One Admission System*

2.34 According to the principle of vicinity, school places will basically be allocated according to school nets and parental choices. Written examinations and interviews are forbidden to eliminate any incentive to make excessive demands on young children. Schools are allowed to allocate a number of discretionary places to preserve their tradition and characteristics.

(ii) *Secondary One Admission System*

2.35 In view of the provision of a nine-year universal basic education, there is no genuine need for a highly selective school place allocation system at the interface of Primary 6 and Secondary 1.

2.36 We recommend that the Academic Aptitude Test (AAT) should be abolished immediately to spare students of any unnecessary drilling. (The Government announced in early July this year that it would accept the EC's recommendation to abolish the AAT from the 2000/01 school year). The replacement mechanism should take into consideration the following factors :

- Respect for parents' and students' preferences in selecting schools;
- Schools should have different characteristics and there should be more diversified modes of running schools;
- Disparity of standards among individual students and schools;
- Teachers' abilities to cater for students of diverse ability;
- Schools and students should be motivated to strive for excellence; and
- The equity, reasonableness and feasibility of the system.

2.37 In the long term, the banding system should be gradually phased out in order to minimize the labelling effect. Public assessment for the purpose of allocating secondary one school places should also be abolished to enable students to concentrate on learning activities conducive to all-round development.

(iii) *The Interface of Secondary 3 and Secondary 4*

2.38 We recommend the provision of learning and training opportunities for all Secondary 3 graduates who wish and are able to continue their studies.

(iv) *University Admission Mechanism*

2.39 We recommend that universities should avoid excessive reliance on the results of public examinations and should give due consideration to the overall performance of students in order

to encourage all-round development in schools.

(v) *Interface of Continuing Education and Other Stages*

2.40 We recommend the establishment of a qualifications accreditation and recognition mechanism, covering various formal education/continuing education, professional courses and vocational training programmes to strengthen the interface of continuing education and other stages, and to provide learners with a clear and flexible ladder for further study.

Reform Proposals for various Education Stages

2.41 We put forward the following reform proposals after considering public opinions collected during the consultation period.

(1) Early Childhood Education

(i) *Enhancing professional competence*

- to raise the entry qualifications requirements of KG/CCC teachers to 5 passes in HKCEE (including Chinese and English) by the 2001/02 school year and to sub-degree level progressively. The feasibility of raising the entry qualifications requirements to degree level will be examined when a fully diversified and multi-channelled higher education system is in place.
- to draw up a detailed timetable for requiring all new KG/CCC teachers to have completed one year of pre-service training and requiring all serving KG teachers to complete professional training
- to draw up a detailed timetable for requiring new CCC supervisors to have completed the Certificate of Early Childhood Education Course and requiring all serving KG principals and CCC supervisors, who have not been professionally trained, to receive professional training
- to set up a mechanism for articulation and credit transfer between different teacher training courses in early childhood education.

(ii) *Enhancing the quality assurance mechanism*

- to develop a set of quality indicators for early childhood education for self-evaluation and external evaluation
- to encourage early childhood education providers to conduct self-evaluation
- to suggest the Government to promote the development of an external evaluation and quality assurance mechanism for early childhood education providers
- to recommend that early childhood education providers make known the results of their external evaluations and self-evaluations so as to enhance the transparency.

(iii) *Reforming the monitoring mechanism*

- The joint working group set up by the ED and the Social Welfare Department is urged to study the feasibility of having one single government body to regulate KGs and CCCs. We hope that the education sector and the public will be consulted in due course and that the working group will submit its report as soon as possible.

(iv) *Enhancing the interface of early childhood and primary education*

- teacher training organizations are recommended to review the training courses for teachers of early childhood and primary education so that these teachers can have a better understanding of the preceding/ensuing stage of education in terms of the curriculum, the pedagogy and child psychology
- the communication and cooperation between KGs/CCCs and primary schools should be stepped up
- primary schools should provide remedial support to those Primary 1 pupils who have not received early childhood education, such as through providing adaptation programmes, to help them get used to school life as soon as possible
- the age of entering KG should be lowered to 2 years 8 months

(v) *Modes of financing*

- full-scale financial support to early childhood education by the Government is not recommended under present circumstances
- if new resources become available, the priority should be to enhance support for parents

(2) Nine-year Basic Education

(i) *Reforming the School Curriculum and Improving Teaching Methods*

- (a) to formulate a curriculum framework that fosters life-long learning and focuses on whole-person development, including –
- provide five types of essential learning experiences: moral and civic education, social service, intellectual development, physical development, aesthetic development as well as work-related experiences
 - all subjects be re-grouped into eight Key Learning Areas (KLA) :
 - Chinese language education
 - English language education
 - Mathematics education
 - Science education
 - Technology education
 - Personal, Social and Humanities education
 - Arts education
 - Physical education
 - every student should gain a balanced exposure in all these eight KLAs
- (b) to develop a new culture of learning and teaching;
- (c) to eliminate repetitive and unnecessary elements in the curriculum, providing more room to teachers and students to make for all-round, effective, coherent and enriched learning;

- (d) to improve the modes and mechanisms of assessment to effectively support learning and teaching;
- (e) to value and promote existing successful experiences;
- (f) to formulate an effective strategy and to implement changes gradually, to pool expertise, to provide professional support to schools.

(ii) *Basic Competency Assessments in Chinese, English and Mathematics (BCA)*

The BCA will comprise two parts –

(a) Student Assessment

Student Assessment will enable teachers and parents to understand students' learning needs and problems in order to provide timely assistance. At the same time, through appropriate measures, it also allows more room for students to develop, so that whilst achieving basic standards, they are able to maximise their potentials.

(b) System Assessment

System Assessment will provide the Government and school management with information on whether schools in Hong Kong attain the basic standards in key learning areas. This will facilitate schools formulating improvement plans and the Government in providing support to those schools which need it.

<u>Proposed date</u>	<u>Student Assessment</u>	<u>System Assessment</u>
2000/01	Under preparation	Under preparation
2001/02	P3	Under preparation
2002/03	P4, P5 and P6	Under preparation
2003/04	S1 and S3	P3
2004/05	S2	P6
2005/06	P1 and P2	S3

(iii) *School Places Allocation Systems*

(a) Primary One Admission System

Short-term mechanism (from 2002/03 to 2004/05 school year)

- generally no less than 50% of places are allocated by schools at their own discretion, including places for all pupils with siblings studying or parents working in the school applied for;
- generally no more than 50% of places are allocated centrally according to school nets and parental choices (one-tenth of which will not be subject to any restrictions on school nets).
(For details, please refer to paragraph 8.2.45 in Chapter 8)

Long-term mechanism (from 2005/06 school year onwards)

- applicants with siblings studying or parents working in the school applied for must be admitted;
- 20% of places may be allocated by schools at their own discretion;
- remaining places are allocated centrally according to school nets and parental choices (one-tenth of which will not be subject to any restrictions on school nets).
(For details, please refer to paragraph 8.2.45 in Chapter 8)

(b) Secondary School Places Allocation System

Proposed transitional arrangement

- the number of allocation bands will be reduced to three;
- discretionary places will be increased to 20%
- the average of each primary school's AAT results in 1997/98, 1998/99, 1999/2000 school years will be used to scale students' internal assessment results as the basis for banding;
- central allocation will be conducted according to students'/parents' choices, school nets and bands;
- should be implemented for the 2000/01 to 2004/05 school years.

Post-transition mechanism

- the number of bands will remain at three;
- secondary schools' discretionary places will be increased to 30%;
- students who have not been allocated S1 places at the

discretionary places allocation stage will be divided into three equal bands according to their internal assessment results;

- central allocation will be conducted according to students’/parents’ choices, school nets and bands;
- should be implemented from 2005/06 school year, subject to the result of the interim review in 2003/04 school year.

(iv) “Through Train” Model

- Primary and secondary schools may decide whether to form ‘through-train’ on a voluntary basis, and pupils can be directly promoted to their associated secondary schools without going through the SSPA system. Primary and secondary schools applying to form ‘through-train’ must satisfy the following conditions:
 - (a) there should be genuine consistency in the curriculum, teaching methodology and students’ personal development;
 - (b) the secondary school must admit all the P6 graduates of its linked primary schools, and the number of S1 places must exceed the total number of P6 graduates of its linked primary school, so that students of other primary schools will still have the chance to be admitted;
 - (c) the primary and secondary schools applying to form ‘through-trains’ must have the same mode of financing (for the purpose of the proposal, private schools and Direct Subsidy Scheme schools are considered as having the same mode of financing).
- As for feeder schools that do not fulfil the requirements in points (b) and (c) above, they will be given ten years to seek an appropriate solution with the Government. During this ten-year period, the schools concerned can retain their own admission system for S1 students.

(For details, please refer to Appendix IV).

(3) Senior Secondary Education

(i) *Developing a senior secondary education system with multiple channels and diversity*

- adequate senior secondary school places should be provided as soon as practicable to provide learning opportunities for all S3 graduates who wish and are able to continue their studies;
- different channels should be provided for students to choose the learning opportunities that best suit their aptitudes, interests and abilities.

(ii) *Establishing a new mechanism for the interface between Secondary 3 and Secondary 4*

- When the senior secondary education system is able to provide adequate school places for all S3 graduates who are willing and able to pursue further studies, a new mechanism should be put in place for the interface between S3 and S4. In the spirit of ‘school-based management’, secondary schools can allocate their S4 places and S3 repeaters’ quota to their own S3 graduates. The remaining school places can be allocated to S3 graduates of other schools at their own discretion. At the final stage, all remaining school places will be centrally allocated to S3 graduates who do not have a S4 place yet.

(iii) *Reform of the academic structure*

- The EC will set up a working group to examine the feasibility of implementing the proposed 3-year structure for senior secondary education and formulate detailed proposals as well as implementation timetable. It will submit its recommendations to the Government in 2002.

(iv) *Curriculum Reform*

- Apart from the five types of learning experiences mentioned above, the curriculum of senior secondary education should also provide students with more work-related experiences, help them explore their own aptitudes and abilities to prepare them for future employment;

- Senior secondary education should provide a broad-based curriculum, avoid premature streaming, enable students to acquire experiences in various key learning areas, construct a broad knowledge base and enhance their ability to analyze problems from various perspectives;
- Schools are recommended to conduct overall assessments on and to record students' participation and performance in different learning activities.

(v) *Reform of public examinations*

- Extending the 'Teacher Assessment Scheme';
- Introducing a core-competence part to HKCEE subjects;
- Allowing S6 students to apply to sit the HKALE for some or all subjects, subject to the consent of their schools;
- Abolishing the fine grades in the HKCEE and HKALE by 2002;
- Enhancing the relevance of examination questions to the knowledge and skills that need to be acquired by students;
- Refining the mode and marking system of examinations to allow students more room for independent and creative thinking;
- Conducting the same examination more than once a year so that students do not have to wait for one whole year to re-sit it;
- Examining the feasibility of introducing a public examination on Chinese and English, which covers different levels of general proficiency and focuses on practical usages of the two languages.

(4) Higher Education

(i) *Universities*

(a) Reform of first degree programmes

- In the light of changes in the society, universities are recommended to review the functions, contents, focuses and modes of teaching of their first degree programmes, so as to strike a right balance between the breadth and the depth of such programmes.

(b) Enrichment of campus life

- Universities are recommended to provide students with more opportunities and room for them to participate in a variety of learning activities.

(c) Reform of the university admission system

- Universities are recommended to overhaul their existing admission mechanism to give due consideration to students' all-round performance. Apart from public examination results, they may also consider internal assessment reports of secondary schools, portfolios prepared by students themselves and their performance at interviews.
- As regards the requirements on subjects taken by students in secondary schools, universities are recommended to consider –
 - giving priority to those students who take the Liberal Studies subject at the Advanced Supplementary (AS) level.
 - replacing Advanced Level subjects with AS level subjects as far as possible when setting the subject requirement for university admission, and minimizing the number of specified subjects, so that secondary school students will have more room to choose subjects across different learning areas.
- Universities should have more flexibility to take in students at various levels on condition that the total number of students entering universities each year is not reduced.
- Provided that no additional public resources are required, consideration may be given to allowing individual universities and faculties to admit a small number of outstanding S6 students.

(d) A portable and transferable credit unit system

- A transferable and articulated credit unit system among institutions and departments is recommended to allow more room for students to choose learning modules according to their own interests and pace. Institutions and individual departments would also be able to focus resources on their own strengths with a view to developing their own areas of

excellence.

- The University Grants Committee (UGC) is recommended to discuss with universities to formulate an appropriate funding model to facilitate the implementation of credit unit system.

(e) Duration of study

- Even if the proposed 3-year academic structure of senior secondary education were implemented, universities should determine the duration of study of each programme according to practical circumstances and needs. There is no need to set the length of all programmes at 4 years.

(f) Quality assurance mechanism

We recommend the UGC and the institutions concerned to consider the following–

- besides reviewing the learning and teaching processes, should external assessments be conducted on the effectiveness of learning and teaching?
- how can the universities' self-accrediting mechanisms be appropriately strengthened to ensure quality?

(g) Postgraduate programmes

- We recommend that the number of research postgraduate places and self-financed taught post-graduate places should be increased to nurture more high quality expertise.

(h) Promoting the development of private universities/higher education institutions

- A conducive environment should be provided for the development of private universities/higher education institutions.

(ii) ***“Community Colleges”***

- We recommend the Government to formulate relevant policies to provide a conducive environment for the development of institutions operating along similar lines as the “community colleges” elsewhere in the world. The Government may facilitate the establishment of a mechanism for articulation of

qualifications and quality assurance. In addition, the Government may consider providing subsidies to students with financial difficulties so as to encourage them to pursue further study. It may also provide financial assistance to institutions to launch community college-type programmes during the initial setting-up stage (such as the procurement of premises).

(iii) *Working Group*

- The EC will form a working group to further consider, in consultation with the UGC, how to enhance the interface between universities and other post-secondary institutions, further examine the problems to be resolved if the proposals are to be put into practice, and formulate specific proposals.

(5) Continuing Education

(i) *Working Group*

- The EC will set up a working group to advise the Government on the policies and specific initiatives on continuing education (e.g. bringing various sectors together to establish a comprehensive mechanism for accreditation of academic qualifications).

(ii) *Establishing “Lifelong Learning Centres”*

- Continuing education institutions or community service organizations are encouraged to make use of the existing community resources to set up lifelong learning centres that embrace teaching facilities, libraries, information technology equipment, study rooms and advisory services.

(iii) *Establishing a Database for Continuing Education*

- The use of the database on continuing education should be promoted to provide learners with a quick and easy channel to search for courses that they are interested in and qualified to apply for.

Implementation Strategy

2.42 We propose to adopt the following implementation strategy and priority items.

(1) Proposed Strategy

- setting priorities
- implementing changes gradually
- conducting trials in key areas
- undertaking continuous monitoring and interim reviews
- ensuring overall coordination

(2) Proposed Priority Items

- Reform of the secondary school places allocation mechanism
- Reform of the primary one admission mechanism
- Reform of the university admission system
- Reform of the primary and secondary school curricula
- Improvement on the existing public examinations
- Implementing Basic Competency Assessments and strengthening remedial and enhancement measures
- Enhancing the quality of early childhood education
- Enhancing the professional competence of principals and teachers
- Increasing learning opportunities at senior secondary and above levels

Resource Strategy

2.43 We propose to adopt the following resource strategy.

(1) Guiding Principles

- the whole community should contribute to education
- priority should be accorded to basic education
- resources should be directed towards enhancing the effectiveness of learning and teaching

(2) Proposed Resource Strategy

- effective utilization of existing public resources on education

- better use of other resources in the community
 - Schools are encouraged to form partnership with different sectors of society (including parents, youth services organizations, uniformed groups, sports groups, cultural and arts groups, professional bodies, voluntary groups, business sector, etc) to provide students with diversified learning activities and to make better use of manpower and financial support provided by these bodies.
 - Schools are encouraged to make better use of various public/community facilities.
 - We should encourage more private participation in the running of schools. We should also promote the development of private universities, community colleges, private schools and the Direct Subsidy Scheme schools so as to provide more channels for different sectors of the community to contribute towards education.

- At present, public expenditure on education takes up about 4% of Hong Kong's Gross Domestic Product. As education has a profound bearing on the future of Hong Kong, we recommend the Government to increase its resources for education.

Support of other Stakeholders

2.44 For the education reform to bring real changes in learning and teaching, and to provide more room for students' all-round development, the efforts of the Government and certain sectors of our society alone are far from being sufficient to realize the vision of the education reform. The active support and commitment of the entire society (including educators, students, parents, education advisory bodies, teacher education providers, school sponsoring bodies, the Quality Education Fund and others) will be indispensable.

Concluding Remarks

2.45 We propose that the Government should formulate detailed indicators to assess the effectiveness of the education reform at an appropriate time after the reform measures have been put into practice. The information collected will be useful reference for the interim reviews.

2.46 The education reform is not only concerned about the here and now, but also our long-term future. There is an urgent need for reform as our society transforms itself. The enthusiastic participation of various sectors of our community during the consultation period has given us hope for success. It is now time for action. We sincerely hope that all members of our society will commit themselves to the education reform.

Chapter 3 : Background to the Education Reform

The World has Changed, So Must the Education System!

3.1 Education holds the key to the all-round development of a person and prepares him/her for work and life. Education nurtures talents for the society and promotes its prosperity and progress. In an ever-changing society, it is imperative that our education system keeps pace with the times and be responsive to the needs of learners. To design an education system for the future, we must envision future changes in the society in order to cater for the needs of learners in the new society and to define the role and functions of education in the new environment.

Changes around the world

3.2 The world is undergoing fundamental economic, technological, social and cultural changes.

3.3 The world economy is in the midst of a radical transformation, and the industrial economy is gradually being replaced by the knowledge-based economy. Industries that rely on cheap labour are giving way to emerging industries founded on knowledge, technology and innovation. Rigid organizations, multi-layered management and strict division of labour are being displaced by lean management structures, streamlined networks and flexible staffing. The creation, updating and application of knowledge have become the key to the success of industries, organizations and individuals.

3.4 People's lives are also undergoing momentous changes. Most jobs require a considerable amount of knowledge which needs to be constantly updated. As the job requirements change, people nowadays need to master knowledge in different domains. Therefore, in a knowledge-based society, people must keep on learning. Many countries have already adopted "life-long learning" as their national policies and have made it their priority task to provide life-long learning opportunities for their people.

3.5 Rapid developments in information technology (IT) have removed the boundaries and territorial constraints for trade, finance, transport and communication. As communication links become

globalised, competition is also globalised.

Developments in Hong Kong

3.6 As an international city, Hong Kong is experiencing the same changes.

3.7 On the economic front, thanks to our people's hard work over the years, Hong Kong is now a world-class centre of finance and trade. Our staunch belief in the market economy, the level playing field, the simple tax system, the rule of law, the free flow of information and a dynamic and enterprising workforce are the key elements in sustaining Hong Kong's competitive edge.

3.8 Meanwhile, our economy is also undergoing structural changes. Hong Kong has long passed the stage of competing through low wages, and is steadily moving up the ladder of value-addedness. A knowledge-based economy is taking shape quickly. Hong Kong's future development will depend on whether we are able to harness new technologies, develop new industries, new business strategies and new operating modes, and whether we have people who are nimble and creative.

3.9 On the political front, Hong Kong has stood by the principle of "One Country, Two Systems" and has been enjoying a high degree of autonomy since our reunification with the motherland. Our relationship with the Mainland is closer than ever before. We should therefore enhance our understanding of our country, our culture, and strengthen our sense of belonging and commitment to our country.

3.10 Hong Kong's long term objective is not only to become one of the outstanding cities in China, but also a democratic and civilized international city embracing the cultural essence of the East and the West. Meanwhile, our social structure is fast evolving and there is an urgent need to alleviate the disparity of wealth. The society is adapting its culture and mindframe to these changes. The rapid development of information technology has opened up new domains in all aspects of our lives and creating new challenges.

The New Role and Functions of Education

3.11 In the tide of changes, everyone has to meet new challenges. Adaptability, creativity and abilities for communication, self-learning and cooperation are now the prerequisites for anyone to succeed, while a person's character, emotional qualities, horizons and learning are important factors in achieving excellence. "Lifelong Learning and All-round Development" is our expectation of everyone in this era. Education is infinitely important for everyone.

3.12 We share a common wish for Hong Kong to be a diverse, democratic, civilized, tolerant, dynamic and cultivated cosmopolitan city. Obviously, the development of education bears upon the equity and balance of our society. Hence, an important mission of education is to enhance the knowledge, ability, quality, cultivation and international outlook of the people of Hong Kong.

3.13 Education in Hong Kong is endowed with some very fine traditions. Our education system is infused with the essence of eastern and western cultures, preserving the basic elements of traditional Chinese education while absorbing the most advanced concepts, theories and experiences from modern western education. Parents and the community attach much importance to the education for our young people. Many of our high quality schools have produced large numbers of outstanding students who have played key roles in both our society and at the international level. For Hong Kong education to meet the expectations of society and fulfill its historic mission, we should spare no effort in preserving and promoting these good traditions.

3.14 Nevertheless, we must address the inadequacies within the existing education system to enable the majority of Hong Kong people to achieve lifelong learning and all-round education. All in all, despite the huge resources put into education and the heavy workload endured by teachers, learning effectiveness of students remains not very promising; learning is still examination-driven and scant attention is paid to "learning to learn". School life is usually monotonous, students are not given comprehensive learning experiences and have little room to think, explore and create. The pathways for lifelong learning are not as smooth as they should be. To make up for these weaknesses, we need to uproot outdated ideology and develop a new education system that is student-focussed.

Chapter 4 : Aims of Education for the 21st Century

Enabling our students to enjoy learning, Enhancing their effectiveness in communication and Developing their creativity and sense of commitment

4.1 Early last year, the Education Commission (EC) invited members of the public to participate in drawing up the aims of education for the 21st Century as the basis for a review on Hong Kong's education system. The community at large generally agreed that the overall aims of education for the 21st Century should be:

To enable every person to attain all-round development in the domains of ethics, intellect, physique, social skills and aesthetics according to his/her own attributes so that he/she is capable of life-long learning, critical and exploratory thinking, innovating and adapting to change; filled with self-confidence and a team spirit; willing to put forward continuing effort for the prosperity, progress, freedom and democracy of their society, and contribute to the future well-being of the nation and the world at large.

Our priority should be accorded to enabling our students to enjoy learning, enhancing their effectiveness in communication and developing their creativity and sense of commitment.

4.2 Having taken into account the comments received from members of the public, the EC has revised the proposed aims of education for various learning stages as follows –

Early Childhood Education

4.3 Early childhood education is the foundation of lifelong learning.

(1) Aims

- To help children cultivate a positive attitude towards learning and good living habits in an inspiring and enjoyable environment.

(2) Objectives

We wish our children to:

- have curiosity and an inquisitive mind, as well as an interest to learn;
- experience a pleasurable and colourful group life, through which they can develop a sense of responsibility, respect others and have a balanced development covering the domains of ethics, intellect, physique, social skills and aesthetics; and
- be prepared to experiment and explore, to learn to face up to problems and find solutions, to develop self-confidence and a healthy self-concept.

School Education

4.4 School education is the stage where students develop their basic life-long learning abilities and attitudes.

(1) Aims

- To motivate students to construct a core of basic knowledge and develop their basic abilities and attitudes to prepare them for the building of a learning and civilized society.

(2) Objectives

(i) The objectives of the nine-year basic education are –

- to enable every student to develop to the full his/her individual potential in the domains of ethics, intellect, physique, social skills and aesthetics;
- to ensure that students attain the basic standards and encourage them to strive for excellence; and
- to encourage students to take the initiative to learn, develop the ability to think and create, and cultivate positive attitudes

and values.

(ii) The objectives of senior secondary education are –

- to enable students to have a balanced and comprehensive learning experience in the academic, vocational, organizational, social service as well as the arts and sports domains to prepare them for employment, for learning and for life;
- to provide students with a diversity of options so that they can understand their abilities and aptitudes better to plan for employment and learning in their future life; and
- to nurture in students a longing for learning, independent and critical thinking, creativity, a commitment to their families, their society and their country, as well as a global outlook.

Higher Education

4.5 Higher education is the stage which follows school education.

(1) Aims

- To consolidate students' abilities and attitudes for life-long learning, and to nurture people who have confidence, a sense of justice and social responsibility and a global outlook.

(2) Objectives

- To develop students' independent and critical thinking, creativity and ability to learn independently and to explore, in preparation for the mastering of knowledge in a certain discipline;
- to foster in students an aspiration for self-improvement, a positive attitude towards life and a commitment to their families, their society and their country; and

- to enhance students' ability to learn, live and work in a diverse social and cross-cultural environment.

Continuing Education

4.6 Continuing education is an important stage for the pursuit of life-long learning.

(1) Aims

- To enable learners to constantly upgrade themselves and to promote their all-round development. For the society as a whole, continuing education helps to enhance the quality of people that is crucial to the society's future development.

(2) Objectives

- To help learners realise their own potentials and enhance personal quality;
- to help learners acquire the most up-to-date knowledge and skills they need to stay competitive in a globalised economy; and
- to provide opportunities for learners to acquire the necessary academic, professional and vocational training and qualifications to fulfil their personal aspiration and the requirements at work.

Chapter 5 : Vision of the Education Reform

5.1 To achieve the aims of education for the 21st Century, the education reform must be backed up by comprehensive planning, multi-faceted coordination and participation by the whole society. We aim to achieve the following vision:

To build a lifelong learning society

5.2 Hong Kong will develop into a society that values lifelong learning. Everyone will have the attitude and ability for lifelong learning and a willingness to advance further beyond the existing knowledge level, and to continuously consolidate and upgrade their knowledge and ability. In addition, there should be diversified learning channels and opportunities to meet their learning needs.

To raise the overall quality of students

5.3 Through a series of reform measures, there will be a general enhancement of the overall standards of students in respect of languages, mathematics, thinking and problem-solving skills, creativity, adaptability, and communication skills. Students will have an upright character, a healthy physique and an aesthetic sense.

To construct a diverse school system

5.4 Different organisations in the society will be running schools and there will be a diverse school system that embraces different education ideologies, modes of financing, directions of development and curriculum focus. Learners will be able to make choices according to their own needs, interests, abilities and individual circumstances and there will be a pool of multi-faceted talents to sustain the future development of our society.

To create an inspiring learning environment

5.5 There will be a learning environment that will induce students to be curious, to question and to explore; it will give students the opportunity to exhibit their abilities in independent thinking and creativity, and thus nurture more creative talents.

To acknowledge the importance of moral education

5.6 Moral education will be acknowledged as playing a very important role in the education system, and having an important social mission. Students will experience structured learning in moral, emotional and spiritual education to help them develop a healthy outlook to life.

To develop an education system that is rich in tradition but cosmopolitan and culturally diverse

5.7 As an inseparable part of China and an international city, Hong Kong will have an education system that preserves the good tradition of our nation but which at the same time gives our students an international outlook and enables them to learn, work and live in different cultural environments.

Chapter 6 : Principles of the Education Reform

6.1 In setting the direction and formulating the proposals for reform, the EC has adopted the following principles –

- **Student-focused**
- **“No-loser”**
- **Quality**
- **Life-wide learning**
- **Society-wide mobilisation**

Student-focused

6.2 The main purpose of the education reform is to give students more room and flexibility to organise and take charge of their own learning.

6.3 Students should be the main protagonists in learning. The ultimate objective of education is to enable every student to achieve all-round development according to his/her own attributes. It therefore follows that in reforming the education system and the methods of learning and teaching, students’ needs and interests must be the foremost consideration.

6.4 In today’s world, we all need a solid foundation of basic knowledge, the ability to pursue learning independently and throughout our lives, the ability to keep abreast of new information and skills, and the ability to construct knowledge. An important mission of the education reform is therefore to nurture in our students the ability to be independent learners, to enjoy learning, to communicate effectively, to have creativity and a sense of commitment. They should be well-versed in physical and artistic skills, as well as intellectually and emotionally sound.

“No-loser”

6.5 There should not be, at any stage of education, dead-end screening that blocks further learning opportunities. One must grasp every opportunity throughout one’s life to continue to learn and to seek self-advancement, and the efforts made should be duly recognised.

6.6 “Teaching without any discrimination” has been a cherished concept since ancient times. We should not give up on any single student, but rather let all students have the chance to develop their potentials. The aim of the education reform is to remove the obstacles in our system that

obstruct learning, to give more room to students to show their initiative and to develop their potential in various domains.

6.7 In a diverse education system, students can find the appropriate learning opportunity at various stages in life according to their personal development needs or job requirements, and their efforts should be duly recognized. Such a system would induce all to pursue life-long learning and promote the emergence of a learning society.

Quality

6.8 In a knowledge-based society, everyone must be equipped with a basic level of learning capacity in order that they can learn throughout their lives and constantly upgrade themselves. We must therefore enable all students to reach a basic level in terms of the various life-long learning skills during the basic education stage. At the same time, we must provide opportunities for the well endowed students to achieve excellence. There must be in any education system a mechanism to ensure students learn to the best effect.

Life-wide learning

6.9 Learning must transcend the constraints of academic subjects and examinations. Students should be able to take part in a comprehensive range of learning activities both inside and outside the classroom.

6.10 In the new millennium, we must adopt a broader definition for education in order that students are able to develop multiple abilities. Activities that take place inside and outside the classroom contribute equally to all-round education.

Society-wide mobilisation

6.11 Life-long education is the important foundation on which we, and Hong Kong as a whole, can build success. The Government, the education sector, various sectors of society as well as learners themselves are all obliged to make contributions.

Public consultation

6.12 The EC received different comments and responses from various sectors during the consultation period. This is a very healthy phenomenon —

a proof of the strength of a diversified society like Hong Kong.

6.13 The following are our views on some matters of principles that attracted extensive discussion during the consultation period.

Society's needs vs the individual's needs

6.14 Education serves the needs of both the society and the individual person. It does not only nurture talents for the general development of the society, but also provides room for everyone to exploit his potentiality.

6.15 Education must help everyone to make a living and to meet the demands of their work. It should enable everyone to achieve their own success and to contribute to the economy. This is the "training" aspect of education.

6.16 Education must also help people enjoy their work and live a meaningful life. Education enriches a person's cultural, intellectual and spiritual faculties, spurring him to continuously raise and to pursue his goal in life. This is the 'enlightenment' aspect.

6.17 In a knowledge-based society, the knowledge cycle is short and information spreads fast. The workplace requires more than ever before good communicative skills, adaptability, abilities for cooperation, self-learning, exploration and independent thinking as well as creativity. High demands are now placed on the individual's personal qualities; even the training for a specific vocation should go beyond the teaching of skills and aim to enhance the inner qualities of a person.

6.18 On the other hand, with the rapid development of information technology, the spiritual aspect of our life is being suppressed by materialistic influences. It is the society's expectation that education should enrich our moral, emotional, spiritual and cultural life so that we can rise above the material world and lead a healthy life.

Urgency vs feasibility

6.19 As the education sector had a deep understanding of the existing problems, they expressed during the consultation period the most sincere expectation for the education reform. The general dissatisfaction of the existing education was also echoed by people from other sectors, and they all expected changes to the education system. All in all, the education sector, parents and employers have the same anticipation for the reform.

6.20 As the public tend to focus on the results that the education reform can bring, they would like to see the reform roll out as soon as possible. There were worries that any delay would cause more harm to students, thus further weakening the competitive edge being enjoyed by Hong Kong. They have therefore suggested a lot of unconventional means to reform the education system.

6.21 On the other hand, the education sector is more concerned with the feasibility of the reform. While acknowledging the urgency of the education reform, they also drew on their experiences gained in previous reforms. They therefore placed much emphasis on the implementation strategy and strongly recommended an orderly and progressive approach to the reform to avoid overloading schools and teachers and creating new confusion in the education sector.

6.22 The EC takes the two conflicting views seriously and has tried to strike a balance between the urgency and feasibility of the reform when formulating the reform proposals.

Competition and fairness

6.23 Competition is the hallmark of Hong Kong and one of the key factors of success of East Asian economies. In a traditional Chinese society, people are steeped in the concept of the old civil service examinations which focused on competition and selection as the main motivation to learn. Education in Hong Kong maintains a strong emphasis on hard work and the belief that ineptitude can be overcome through diligence, and people think that one's own efforts will supplement any lack of natural endowment. Under the influence of such a tradition, Hong Kong has over the years nurtured a lot of distinguished talents and high quality schools.

6.24 The quality of our people stands up to comparison with that of any developed countries. However, in the traditional system of education, the success of a few outstanding students is built upon the failure of the majority of students. In Hong Kong, the education system has brought frustration and a sense of failure to a lot of youngsters, and does not provide sufficient channels for them to find their own career. Such a competitive mechanism can only produce a small number of distinguished talents and will not give Hong Kong a competitive edge. It has undercut social equity and has divided our society. In a lifelong learning society, an education system that only enables a few people to excel is not up to date. Hong Kong will lag behind her neighbours if the education system cannot renew itself with the

times.

6.25 The reform package put forward by the EC aims to instill a new concept of competition and to introduce a new competition mechanism that takes account of selectiveness, fairness, social equity and the “no-loser” principle. These principles are adopted in our proposals for school places allocation, examinations and admission.

6.26 The focus of the reform is put on enhancing the learning environment of all students and the overall quality of the school system while protecting and promoting good traditions. In this process, it will be inevitable that certain old policy rationales and measures will need to be changed, and it will be necessary for all schools to adjust to the changes.

Learning and teaching

6.27 “Teaching” and “cultivation” have always been placed at the centre of traditional Chinese education. The dissemination of knowledge has gradually become one-way transmission, and the attention is put on schools and teachers. In Hong Kong, the workload of teachers has become increasingly heavy, while the students’ learning has become more passive.

6.28 This situation is in conflict with the principle of developing students’ self-learning ability, exploratory skills and creativity. It will stunt the development of students’ potentials and is not conducive to the emergence of a lifelong learning society.

6.29 Therefore, the focus of the curriculum reform suggested by the EC is not on specific changes in the subjects or the syllabus, but rather an overall reform of the rationale behind learning and teaching. It aims at placing students’ learning at the centre of the education system and making students the masters of learning, in the true spirit of the “student-focussed” principle.

6.30 In a knowledge-based society, students would no longer receive knowledge passively. Through the process of learning, they also continuously construct and create knowledge. To enable students to do this, a lot has to be done to the education system in Hong Kong.

6.31 The EC fully understands that the mindset on learning and teaching cannot be changed overnight, or through any government edict. The EC has proposed a direction for the reform, but the “paradigm shift” can only be realized with the active participation of frontline educators. Meanwhile, the

mobilization of students' participation in the education reform is also an important mission for the EC and the education sector in Hong Kong.

The Government's role

6.32 The EC has discussed in detail the role of the Government in the management of primary and secondary schools in Report No. 7. The Education Department (ED) is now actively carrying out the reform of "school-based management" for schools to have greater autonomy in administration and teaching coupled with a greater degree of transparency and accountability. The ED will also reinforce its role as a partner of schools in enhancing the quality of education.

6.33 The basic premise of the education reform is not only to create room for students, but also for schools and teachers alike, so that the latter can develop school-based curriculum and design teaching methods according to their professional judgement and the practical needs of students. However, while respecting the professionalism and autonomy of educators, the Government must be accountable to the public. Therefore, it has the responsibility to ensure the transparency and accountability of schools, and has to put in place an effective quality assurance mechanism.

6.34 The Government also performs some other indispensable functions. Firstly, it is responsible for the interface and coordination of various levels and domains of education. It must be able to identify any gaps in the lifelong learning system and take appropriate action. The Government should also ensure that the learners, particularly students in basic education, have the appropriate conditions for learning and that the under-privileged have a fair access to learning opportunities.

The function of examination

6.35 Examination, particularly public examination, has always been the core of education systems in East Asian societies. It was also the focal point in the education reform of some of our neighbouring economies.

6.36 Examination has its positive effects. The public examination system in Hong Kong is generally considered as a fair and highly creditable mechanism. If properly leveraged, public examination can be an effective assurance mechanism for learning.

6.37 Nevertheless, public examinations do carry some negative effects. They may limit rather than widen students' horizon of learning. Currently, examinations on a subject basis and quantitative assessment have given rise to the compartmentalization of subjects, forcing students to choose between the arts and science streams. Students cannot set priorities in learning as there is no weighting among examination subjects, and learning beyond academic subjects is ignored as it can hardly be publicly examined.

6.38 The EC has therefore treated public examinations as an integral part of the reform; the reform proposals are designed to preserve and promote the positive side of public examination and at the same time to minimise its adverse effects. This topic will be further discussed in Chapter 7 and Chapter 8.

Chapter 7 : Focuses of the Education Reform

7.1 The key to the realization of the above vision is to create a favourable environment and condition for students so that they have enough room to develop their potentials. At the same time, frontline educators would need more room to put their aspirations into practice. To achieve these goals, the education reform should comprise the following key items :

- Reforming the admission system and public examinations system so as to break down barriers and create room for all
- Reforming the curricula and improving teaching methods
- Improving the assessment mechanism to supplement learning and teaching
- Providing more diverse opportunities for lifelong learning at senior secondary level and beyond
- Formulating an effective resource strategy
- Enhancing the professionalism of teachers
- Implementing measures to support frontline educators

7.2 As an important part of the whole education reform, the review of the education system covers the academic structure, the curricula, the assessment and the interface of different education stages. The proposals of this report will focus on the first five major items as mentioned above. Whilst the review is being conducted, the EC, Education and Manpower Bureau and Education Department (ED) had done preparatory work in other key areas of education to facilitate the effective implementation of the education reform.

7.3 As for item 6, the University Grants Committee (UGC) and the Advisory Committee on Teacher Education and Qualification (ACTEQ) submitted a report to the Government in 1998 and proposed a number of recommendations to upgrade the teachers' professional qualifications and status. In the same year, the Government decided to increase significantly the number of teacher education places at degree or above level in the coming years. The Administration is also actively pursuing other recommendations such as the establishment of professional development ladder for teachers. As regards item 7, we shall in paragraph 11.8 of Chapter 11 mention the measures being carried out or to be implemented by the Government. The first five major items are elaborated below -

Reforming the admission systems and public examinations system

7.4 There are at present too many hurdles at various stages of education like the Primary One (P1) and the Secondary One (S1) admissions, public examinations as well as university admission, which impose a lot of restriction on learning. The admission criteria at various education stages emphasize students' academic results rather than their overall performance, and assessments are predominantly in written form which requires memorisation. As a result, school education tends to put too much stress on the intellectual development of students' rather than the development of their ethical, physical, social and aesthetics faculties.

7.5 We believe that the school admission mechanisms at different education stages should have regard to the process of students' psychological and intellectual development and the objective conditions in the education system. An admission mechanism for pre-primary children should not have an element of screening so as not to put excessive pressure on young children. As a matter of fact, since Hong Kong adopts nine-year compulsory basic education, there should be no need for any selective mechanisms at P1 and S1. We propose that admission to P1 should be based on the principle of vicinity and school places should be allocated at random according to school nets and parental choice to reduce any incentives for drilling on the part of kindergartens and parents.

7.6 Moreover, we suggest that Academic Aptitude Test (AAT) should be abolished under the Secondary School Places Allocation (SSPA) mechanism to avoid unnecessary drilling; bands should be reduced to remove the labeling effect; the proportion of discretionary places should be increased appropriately to broaden the admission criteria. In the long term, we do not recommend any form of public assessment for SSPA purpose.

7.7 Regarding public examinations, we propose that the modes, content, and assessment methods of the examinations should be reviewed. More flexible modes of examination should be adopted so that students have more room to display their independent thinking and creativity. As regards the assessment methods, an appropriate degree of teachers' assessment should be introduced to better assess those abilities that are not easily assessed in written examinations (e.g. the abilities for organization, communication and cooperation with others). This would encourage students to participate in a more diversified range of learning activities.

7.8 As for university admission, we suggest that universities should consider the overall performance (including the academic and non-academic performance) of students in addition to the results of public examinations. Students' school results, their portfolio and performance at interview should also be considered to assess their abilities in various aspects and their attitude in dealing with people and problems. It will not only help to promote the concept of all-round education, but will also enable universities to take in the genuinely good students.

Reforming the curricula and improving teaching methods

7.9 We develop our attitudes and abilities, and construct knowledge from our **learning experiences**. From what we see and experience, we build up gradually our knowledge of people and matters. We gradually learn how to analyze, judge and establish our own values. The design of the school curricula should therefore be premised on students' **learning experiences**.

7.10 To help students develop all-round abilities and positive attitudes in preparation for lifelong learning, we must provide them with comprehensive and balanced learning experiences. We propose to provide five important learning experiences, namely intellectual development, life experiences, job-related experiences, community service as well as physical and aesthetic development through reforming the curricula. The integration of various forms of formal, non-formal and informal learning activities within and outside the classroom will enable students to have an interesting and diversified learning life, helping them cultivate an interest in learning, positive values and attitudes, and will hone their analytical and independent thinking, analytical skills, creativity, communication skills as well as their commitment to the society and the nation.

7.11 The curricula for higher education should also adjust to new changes in our society. We propose that universities should review the functions, content and mode of teaching of first degree programmes, and **maintain a balance between the breadth and depth of the curricula**, so that students will have exposure to other learning domains apart from their own specialised disciplines and be able to develop a broader vision and important generic skills.

Improving the assessment mechanism to supplement learning and teaching

7.12 As part of the curriculum, the major function of assessment is help teachers and parents understand the learning, progress and needs of their students, as well as their strengths and weaknesses. Teachers could take into account the results of assessment in planning the teaching syllabus, designing teaching methods and giving guidance to individual students to help them learn effectively and exploit their potentiality fully. This will also enable students to have a deeper understanding of themselves.

7.13 For this purpose, we propose to put in place **Basic Competency Assessments in Chinese, English and Mathematics** at various stages of basic education. Schools may conduct these assessments as and when appropriate to get a better picture of students' progress in learning and to identify their strengths and weaknesses at an early stage, so that follow-up actions can be taken as soon as possible and suitable assistance given to students with learning problems. At the system level, we propose that tests should be administered centrally at P3, P6 and S3 to ensure that schools have met basic standards in key learning areas. On the basis of the assessment data and their own development needs, schools may formulate plans to improve the effectiveness of learning and teaching.

7.14 We also recommend to use multiple modes of assessment, such as flexible formative assessment, to minimise the amount of quantitative evaluation and make way for more analytical assessment to give a comprehensive picture of students' learning needs. Excessive dictations, mechanical drilling, tests and examinations should be avoided so that students would have more time to participate in useful learning activities.

Providing more diverse opportunities for lifelong learning at senior secondary level and beyond

7.15 Industries that employed a large number of low-skilled workers used to be an important part of Hong Kong's economic activities and provided a lot of employment opportunities for S3 leavers and secondary school graduates. Faced with rapid economic restructuring, traditional industries in Hong Kong have moved northwards and been replaced by high value-added and more technology intensive industries. As we head for a knowledge-based society, we need to acquire more complex and fast-changing knowledge and skills. There is a need to increase learning

opportunities at the secondary level and post-secondary level to help more people to cope with the needs of a knowledge-based society. Moreover, as people live longer nowadays, they can lead a fuller and more meaningful life with more opportunities for lifelong learning.

7.16 As a matter of fact, in many other parts of the world, the proportion of post-secondary places for the relevant age group far exceeds that in Hong Kong, which is only about 34%⁽⁵⁾. In the United States and Australia, the proportions are 81%⁽¹⁾ and 80%⁽²⁾; and the proportions in the United Kingdom and in the Republic of Korea are 52%⁽³⁾ and 68%⁽⁴⁾ respectively.

7.17 In the face of the globalised economy and high operating costs, Hong Kong must have a large pool of talents, generalists and specialists alike, with good communication, innovative and analytical skills, to maintain our position as an international centre of finance and trade, and to further develop Hong Kong into a world-class cosmopolitan city. What Hong Kong needs is a diversified education system which provides more learning opportunities at senior secondary level and beyond through different modes and system of learning.

Formulating an effective resource strategy

7.18 Education can help each individual enhance his or her quality and ability. It also contributes to society's progress and prosperity. The success of the education reform will benefit each and every individual. To implement the reform, extra resources will be required. If effectively used, our investment in education will bring us enormous returns which far exceed the costs incurred.

7.19 The first step to implement the education reform is to formulate appropriate resource strategies. At present, education is the single largest item of public expenditure, accounting for 23% of the overall Government budget. There is only limited room for increasing government expenditures on education under the present circumstances.

7.20 Therefore, we propose to review the utilisation of the existing public resources devoted to education. Redeployment should be made in accordance with the effectiveness and urgency of various expenditure items in order to maximize the effective use of the existing resources.

7.21 We also propose to make better use of other resources in the society as far as possible. The social sector, including social service agencies, cultural organizations, recreation and sports bodies, uniformed groups, youth service agencies, other voluntary groups and the business sector, etc. are ready to support and co-operate with schools in providing diversified learning experiences for students. Parents can also play an important part in rendering support to education.

7.22 The proper use of resources currently devoted to education alone cannot satisfy the needs of education reform. We need to consider carefully how and through what channels the community at large will be able to contribute to realise the reform.

Note (1) : 1995 data Note (3) : 1996 data Notes (2), (4) : 1997 data

Source of information : Statistical Yearbook 1999, United Nations Educational, Scientific and Cultural Organization

Note (5) : 1999 data

Chapter 8 : Reform Proposals For the Education System

8.1.1 As the scope of the current review is on the education system, the reform proposals put forth in this report will focus on the academic structure, the curricula and the assessment mechanisms of various stages of education and the interface between different stages.

Section 1: Early Childhood Education

Building a New Culture for Quality Early Childhood Education

8.1.2 Early childhood education lays the foundation for life-long learning and all-round development. It should provide children with all-round and balanced learning experiences according to their physical and psychological development needs to help them cultivate an interest in learning and good living habits as well as to learn to respect others. We must not try to push young children to overstretch themselves.

8.1.3 In the third stage of consultation on this review, the EC's proposals for enhancing professional competence, improving the quality assurance mechanism, reforming the monitoring mechanism, enhancing the interface between early childhood and primary education as well as promoting parent education and participation were generally well received. Having considered the comments received, we put forward the following reform proposals :

Enhancing professional competence

8.1.4 As the professional competence of teachers and principals/supervisors of kindergartens (KGs) and child care centres (CCCs) directly affects the quality of early childhood education, the EC proposes to enhance the professional standards of early childhood educators through training and raising their entry requirements. The detailed proposals are set out below:

<u>Issues</u>	<u>Current Situation</u>	<u>Proposal</u>
Entry qualification requirement of KG/CCC teachers	2 passes in the Hong Kong Certificate of Education Examination (HKCEE), including one language subject	<ul style="list-style-type: none"> • <u>Preliminary Target</u> Raise the entry qualification requirement to 5 passes in HKCEE (including Chinese and English subjects) starting from the 2001/02 school year • <u>Next Stage's Target</u> Raise the entry qualification requirement to sub-degree level • <u>Long-term Target</u> When the higher education system has become sufficiently expanded and diversified, a further review should be conducted to assess the feasibility of raising the entry qualification requirement to degree level
Professional training for KG/CCC teachers	<ul style="list-style-type: none"> • Serving KG teachers have to receive recognized qualified KG teacher (QKT) training (approximately 360 hours) • According to the policy objectives set by the Government, with effect from September 2000 no less than 60% of KG teachers in every kindergarten should be qualified kindergarten teachers. 	<ul style="list-style-type: none"> • Draw up an implementation timetable for requiring all new KG teachers to have completed one-year pre-service training, after assessing the supply of human resources (Degree holders may be exempted on condition that they must complete QKT training within the first two years of their service) • Draw up a timetable for requiring serving KG teachers to complete QKT programme • Encourage serving KG teachers to enhance their professional level through continuing learning

<u>Issues</u>	<u>Current Situation</u>	<u>Proposal</u>
Professional training for principals	<ul style="list-style-type: none"> According to established government policy, starting from September 2002 all new KG principals must have completed the Certificate of Education (KG) course 	<ul style="list-style-type: none"> Draw up a timetable for requiring new CCC supervisors to have completed the Certificate of Early Childhood Education Course Draw up a timetable for requiring all serving KG principals and CCC supervisors who have not been professionally trained to receive suitable professional training

8.1.5 To implement the above proposals, the Government and teacher training providers of early childhood education should pro-actively consider the following possibilities:

- (1) fostering the mutual recognition and transferability of academic qualifications offered by different training bodies;
- (2) examining the feasibility of developing a credit unit system for early childhood teacher training courses to facilitate teachers' continuing learning and attainment of standards at Certificate of Education level or above. Hence, it is necessary to establish a mechanism for articulation among different teacher training courses and mutual recognition of different qualifications; and
- (3) establishing a professional ladder for KG teachers and increasing subsidized training opportunities to promote the professional development of KG teachers.

Enhancing the quality assurance mechanism

8.1.6 A quality assurance mechanism serves to help early childhood education providers understand their strengths and areas for improvement to facilitate them in enhancing the quality of education. During the consultation period, the public generally considered that a combination of internal and external evaluation mechanism would constitute the most effective quality assurance mechanism.

Setting quality indicators

8.1.7 An indispensable part of the quality assurance mechanism is a set of clear and proper quality indicators that serve as a basis for external and internal evaluations. The ED is now developing, in collaboration with representatives of the education sector, a set of standardized quality indicators so as to provide a common basis for evaluating early childhood education in Hong Kong. The quality indicators cover the four areas of management and organization, learning and teaching, school ethos and support to children, as well as children development. We propose that the ED should collaborate with the Social Welfare Department (SWD) to harmonize the quality indicators for KGs and CCCs so as to put in place common standards for monitoring purpose.

Self-evaluation mechanism

8.1.8 An institution's self-evaluation is an important step towards self-improvement and is an integral and essential part of the quality assurance mechanism. We urge early childhood education providers to formulate the framework, procedures and tools for self-evaluation as early as possible, and to systematically review the various key aspects so as to help them better understand their own effectiveness and areas for improvement. By taking part in this process, the principals and teachers will have better communication, thus benefiting their professional development. We propose that the Government should provide training and professional support to help early childhood education providers set up and implement a self-evaluation system for the institutions.

External evaluation and quality assurance mechanisms

8.1.9 External evaluation can be conducted by independent specialists/institutions in early childhood education or the concerned regulatory bodies. Equipped with relevant experience and a broader perspective, these organisations/individuals can offer objective evaluation and expert advice on the institutions' strengths and areas for improvement. These organisations/individuals could also share with the institutions evaluated the successful experiences of other early childhood education providers.

Enhancing transparency

8.1.10 We propose that early childhood education providers should make public the results of their external and internal evaluations so as to enhance transparency and facilitate communication with parents. The Government, parent-teacher associations and early childhood education providers should also help parents understand and make proper use of such information.

Reforming the monitoring mechanism

8.1.11 Currently, early childhood education providers in Hong Kong include whole-day and half-day KGs and CCCs. They are registered and regulated by the ED and the SWD respectively, and subject to two different sets of legislation.

8.1.12 Taking into account the disparate situations elsewhere, our view is that Hong Kong should have an early childhood education system and monitoring mechanism that are tailored to our specific needs. KGs and CCCs differ in their focuses of services. The former focus on providing education, while the latter mainly provide child care services. In keeping with the promotion of diversity, we should allow different systems and service providers to retain their own characteristics to fulfil the needs of the people they serve.

8.1.13 In fact, the Working Party on Kindergarten Education (幼稚園教育工作小組) made a series of proposals in 1995 for harmonizing the various aspects of KG and CCC operation. Currently, the Government has set common standards for the curricula, entry requirements, recommended salary and teacher training of KGs and CCCs. The Government is also planning to gradually implement, where possible, the other proposals on harmonizing the operation of KGs and CCCs.

8.1.14 We understand that the ED and the SWD have set up a joint working group to study the feasibility of having one single body regulating all KGs and CCCs to raise the effectiveness of the regulatory work. We urge the joint working group to complete the study as soon as possible and consult the education sector and the public.

Enhancing the interface between early childhood and primary education

8.1.15 Early childhood education is the starting point of formal education and is closely linked to the later stages of education. Factors currently directly affecting the interface between early childhood and primary education include:

- (1) the existing system for admission to Primary 1 gives an incentive for drilling students (please refer to Section 2 for details); and
- (2) there is insufficient communication and coordination between early childhood education providers and primary schools on the curricula and teaching methods.

8.1.16 We therefore propose to enhance the interface between early childhood and primary education and recommend that:

- (1) teacher training providers should review the teacher training courses for teachers of early childhood and primary education so that they can have a better understanding of the preceding/ensuing stage of education in terms of the curriculum, the pedagogy and child psychology;
- (2) the communication and cooperation between KGs/CCCs and primary schools should be enhanced through mutual visits and joint activities;
- (3) primary schools should run adaptation programmes for Primary 1 pupils who have not received early childhood education to help them get used to school life as soon as possible; and
- (4) at present children can enter primary school when they reach the age of 5 years and 8 months, but they need to be three years old before they can enter a KG. We propose to align the minimum age of entering KG to 2 years 8 months. The majority of feedback received during the consultation were in favour of this proposal. We also urge the Government to step up monitoring to ensure that KGs adopt a curriculum which suits the development of children so that young children will not be forced to pursue learning beyond their developmental stage.

Mode of subsidy

8.1.17 The Government currently provides fee remission to needy parents of KG/CCC pupils. On the other hand, non-profit making KGs/CCCs are also provided with various forms of assistance such as reimbursement of rental and rates, provision of school premises and the Kindergarten Subsidy Scheme.

8.1.18 During the consultation period, there were suggestions that the Government should provide full subsidy for early childhood education while some other people proposed that 50% of the salary of the qualified kindergarten teachers should be subsidized by the Government. The EC's views on this issue are as follows:

- (1) The provision of full subsidy does not necessarily ensure the quality of early childhood education. We consider that the above proposed reform measures will be more effective and direct in enhancing the quality of early childhood education. Under the current circumstances, we do not recommend the Government to provide full subsidy for early childhood education.
- (2) The Government should adopt the following principles in subsidizing early childhood education:
 - (a) the Government must ensure that no children will be deprived of early childhood education due to lack of financial means;
 - (b) the priority of allocating new resources in this area should be accorded to improving the direct assistance for parents. Subject to the availability of resources, we propose that the Government should consider relaxing the eligibility criteria of the means-tested assistance schemes for pre-school pupils. The level of assistance should also be duly raised to benefit more families so that parents will be in a better position to choose quality institutions for their children. This will in turn promote the quality of early childhood education. To assist parents in making wise choices, the proposals put forward in item (3) below should be implemented; and

- (c) as the conditions set out in item (3) below will take some time to develop, there may still be a need to appropriately raise the level of subsidy for non-profit making early childhood education providers in the transitional period so as to encourage these institutions to enhance the professional levels of their teachers.
- (3) The following measures should be adopted to assist parents to choose quality early childhood education providers:
- (a) increase the transparency of early childhood education. For example, early childhood education providers should publish details of their mission, facilities, curricula, teacher qualifications as well as the results of self-evaluations and external evaluations so as to help parents and the public understand the standard of the service they provide;
 - (b) draw up a specific time-table for requiring, where practicable, all early childhood education providers to undergo external evaluations conducted by independent specialists. This will assist service providers to raise their standards and to strengthen quality assurance; and
 - (c) strengthen education for parents to help them understand their children's developmental process and needs at different stages as well as the mode of education that is good for their children. This would enhance parents' ability to choose institution that can best cater to their children's needs.

8.1.19 We note that the joint working group set up by the ED and the SWD will examine how to improve teacher training for early childhood education, to facilitate the transfer of credit units and articulation of courses as well as to enhance quality assurance mechanisms. It will also study the feasibility of having one single body regulating all KGs and CCCs, and will review the mode of subsidy for early childhood education in the 2000/01 school year. We urge that the Working Group should accord priority to improving teacher training for early childhood education and submit recommendations on the above various issues as soon as possible.

Section 2: Nine-year Basic Education

To nurture the basic attitudes, skills and knowledge for life-long learning

To ensure basic competence and encourage the pursuit of excellence

8.2.1 The focus of nine-year basic education is to help students achieve an all-round personal development and to attain a basic level of competence in various aspects in preparation for life-long learning. To achieve this aim, we must reform the school curriculum and improve learning/teaching methods, provide students with balanced learning experiences, and facilitate learning and teaching through putting in place Basic Competency Assessments in Chinese, English and Mathematics. Furthermore, to provide students with sufficient room to enjoy an all-round, balanced and coherent learning life, the systems of admission to primary one and secondary one must be reformed.

Reforming the school curriculum and improving teaching methods

8.2.2 According to the aims of education for the 21st Century, the curriculum reform must be student-focused and should aim to develop students' interest in learning, communication skills, creativity as well as sense of commitment so as to prepare them for life-long learning. It should enable **every student** to achieve **an all-round development according to his/her own attributes**. (The recommendations set out below are applicable to both nine-year basic education and senior secondary education.)

8.2.3 During the consultation period, the public generally supported the proposals for reforming the school curriculum and improving teaching methods. Many were of the view that to enhance the effectiveness of learning and teaching, appropriate training and support should be provided to both teachers and school heads. The curriculum reform should be implemented in a progressive and systematic manner to allow schools and teachers sufficient time to fully grasp the knowledge and skills of implementing the curriculum reform. There were also calls for further strengthening moral and civic education and formulating a concrete implementation plan. Taking into account the public's views, the EC puts forward the following proposals:

(I) Strategies

8.2.4 We propose the following strategies for the curriculum reform :

- (1) to formulate a curriculum framework that focuses on the promotion of lifelong learning and all-round development;
- (2) to promote a new culture of learning and teaching;
- (3) to remove from the curricula repetitive or unnecessary elements so as to provide teachers and students with more room to develop an all-round, effective, coherent and diversified learning life;
- (4) to improve the modes and mechanisms of assessment to effectively support learning and teaching;
- (5) to value and promote existing successful experiences; and
- (6) to formulate effective curriculum reform strategies to be implemented progressively, to pool together expertise, and to provide professional support to schools.

(II) Formulation of an open and flexible curriculum framework

8.2.5 The Curriculum Development Council (CDC) is undertaking a holistic review of the primary and secondary school curricula and is preparing a curriculum framework with a view to realizing the aims of education. The framework embodies the following five important learning experiences that could be obtained from integrated learning in and outside the classroom to achieve all-round development:

moral and civic education (life experience)
intellectual development
social service
physical and aesthetic development
work-related experiences

8.2.6 All existing subjects are suitably incorporated into eight Key Learning Areas (KLAs) in the curriculum framework:

Chinese language education
English language education
Mathematics education
Science education
Technology education
Personal, Social and Humanities education
Arts education
Physical education

Every student should gain a balanced exposure in all these eight KLAs during the basic education stage.

8.2.7 Based on students' all-round development and life-long learning needs, the framework will outline the basic learning elements such as knowledge, concepts, skills, attitudes and values in different KLAs. The school curriculum structure may be very diverse and may accommodate such as in the form of subject learning, modular learning, permeation approach, integrated learning and project learning. It should be continuously modified to keep up with the times.

8.2.8 In the short term, schools may use the existing subjects in different KLAs (e.g. "Chinese History", "Geography" and "Economics and Public Affairs" in the "Personal, Social and Humanities education" KLA at junior secondary level) to strengthen students' self-learning and thinking abilities through various learning activities and create more room for independent thinking and construction of knowledge. Teachers may also make appropriate use of project learning to help students develop abilities and skills for analysing issues from different angles. We propose that, as schools gradually master the skills of teaching across different subjects, the various subjects may be duly integrated to enable students to have a more coherent and integrated learning experience.

8.2.9 In designing school-based curricula, individual schools may make reference to the curriculum framework to be publicized by the CDC in November for consultation or participate in development projects (e.g. the New Arts Education Curriculum) to be organised by the ED. The successful experiences so generated will provide good reference for other schools.

8.2.10 At the same time, the CDC will ensure that the curriculum as a whole will enable students to have a better understanding of their country in order to enhance their identification with and commitment to their country. In this respect, the core elements of the curriculum will cover various aspects of China such as culture, history, literature, art and geography.

(III) A new culture in learning and teaching

8.2.11 The key to a successful curriculum reform for realizing the aims of education is to develop a new culture of learning and teaching that can bring about real changes in school life.

(1) Shifting from *transmission of knowledge to learning how to learn*

8.2.12 The effectiveness of teaching does not lie in the number of texts taught, but what has been learnt by students. The fostering of a positive learning attitude and the strengthening of students' learning abilities are more important than the imparting of knowledge. We propose to eliminate the repetitive, outdated and unnecessary elements in the curriculum (CDC proposes to suitably trim the curriculum to delete those elements which are repetitive and outdated) and to update its content. Schools should make good use of the room thus created to help students foster attitudes and enhance generic abilities (including skills in communication, numeracy, information technology, learning, problem-solving, critical thinking, innovating, collaboration and self-management) through diversified and inspiring learning and teaching methods. Students should also be encouraged to do more thinking, questioning, communicating and cooperating with others as well as taking part in and experiencing new things.

(2) Shifting from *over-emphasizing academic studies to focusing on whole-person development*

8.2.13 It is equally important that students should be taught how to tackle problems and work with others. To facilitate their all-round development, we should provide them with five types of essential learning experiences: moral and civic education, social service, intellectual development, physical development, aesthetic development as well as work-related experiences.

(3) Shifting from *compartmentalised subjects* to *integrated learning*

8.2.14 To tackle the problems we encounter in daily life and in the workplace, we often need to draw on the knowledge and skills that straddle different domains. It is therefore important not to compartmentalise students' learning into an inflexible subject framework. Schools should help students develop abilities and skills for analysing issues from different angles and applying knowledge of different domains through integrated learning.

(4) Shifting the focus from *textbooks* to *diversified learning and teaching materials*

8.2.15 Textbooks are not the sole source of knowledge. As a matter of fact, people (including family members, teachers and friends) and things (including newspapers, magazines, supplementary reading materials and information presented in the media) around us can all be excellent learning materials. The Internet, in particular, provides us with a wealth of information. Taking into account students' characteristics and needs, teachers can make use of information from various sources to design school-based teaching materials that are interesting and inspiring.

(5) *Support from the community and learning beyond the confines of the classroom*

8.2.16 Learning is by no means limited to the classroom. Libraries, museums, learning resources centres, public and private institutions and the countryside (such as Nature Education Paths) can all be good venues for learning to take place. Therefore, we should go beyond the confines of the classroom in designing learning activities, and make better use of other learning venues.

8.2.17 In addition, other sectors of the society (including youth service organizations, uniformed groups, cultural and arts groups, sports organizations, the business sector, professional bodies and parents) can provide valuable resources for schools to offer diversified and interesting learning experiences. For instance, the wide range of indoor and outdoor activities provided by uniformed groups, including outdoor training camps, social services and life skills training, are conducive to developing students' organisation, communication and leadership skills, creativity, adaptability, integrity and sense of commitment to the society.

(6) From *traditional time-tabling to an integrated and flexible arrangement of learning time*

8.2.18 Schools are encouraged to make flexible use of the learning time throughout the school year according to practical needs. For example, to arrange learning time in terms of learning hours; or to arrange project learning activities that straddle a number of learning areas which take place over several consecutive days or weeks; or to allocate several periods in a day for learning activities (such as field investigation/visit) that require more time, with a view to enabling students to experience an uninterrupted and comprehensive learning life.

(7) Abolishing *premature streaming* and providing **more opportunities** for students to explore their *aptitudes and potentials*

8.2.19 Young people have to reach a rather mature stage before they can have a clear idea about their own aptitudes and potentials. Premature streaming hinders the construction of a broad knowledge base, and stifles the chance for students to explore their own potentials. Hence, we are in favour of abolishing the labelling of schools as grammar, technical or pre-vocational at secondary school level and allowing schools to design curricula to cater to students' interests and aptitudes. At senior secondary level, students should be allowed more room to choose learning modules that best suit their interests and abilities, and they should also be encouraged to have wider exposure in different learning areas.

(IV) Assessment system

8.2.20 Assessment is an integral part of the curriculum. It mainly serves to assist teachers and parents to understand students' learning progress, their needs as well as their strengths and weaknesses, so that appropriate measures can be taken to help students learn more effectively and to maximize their potentials. Students will also be able to understand themselves better.

8.2.21 Assessment should align with the objectives, process and experience of learning. Importance should be attached to the cycle of teaching, learning and assessment; and the assessment

mechanism should be suitably adjusted in accordance with the needs of learning and teaching. We propose that:

- Focus of assessment:**
- (1) Students' **attitudes and abilities**, rather than the knowledge they memorize, should be emphasized.
 - (2) Emphasis should not be placed solely on the assignments completed by students (such as homework and project reports); more attention should be paid to their performance and the problems they encounter in the **learning process**, as these will serve as reference for adjustments in teaching methods.

- Mode of assessment:**
- (1) Written examination is only one of the assessment modes. In order to have a more comprehensive picture of students' performance and abilities, schools can make use of many **different modes of broad-based assessments** for the eight key learning areas such as formative assessment which helps promote learning in a flexible manner (including observation of students' performance in classroom and participation in project work).
 - (2) **The use of quantitative assessment should be minimized.** Apart from marking scores, more analytical assessments with specific comments should be made, as they will provide more useful feedback for learning and teaching.

Frequency of assessment: Summative assessments are necessary but should not be excessive. Excessive dictations, mechanical drillings, tests and examinations **should be avoided** to

allow students more time to participate in useful and diversified learning activities.

The weighting: The weightings accorded to different learning areas in the internal assessment should be reviewed. For example, the weightings given to physical education and arts education should be duly increased to promote all-round development.

8.2.22 As part of the curriculum reform, the CDC will draw up standards for schools' reference in conducting internal assessments, taking into account the specific learning objectives at different learning stages as contained in the proposed school curriculum. Training and professional support for teachers will be provided by the Curriculum Development Institute to enhance the effectiveness of using internal assessments to facilitate learning and teaching.

8.2.23 To assist schools to effectively assess their students, we propose to introduce Basic Competency Assessments in Chinese, English and Mathematics, which will provide another tool for schools to gauge students' learning progress and needs (This proposal would be explained in detail in Paragraphs 8.2.30 to 8.2.41).

(V) Strategies for Implementation

(1) Curriculum development

8.2.24 The CDC is now conducting a holistic review of the primary and secondary school curricula, and is in the process of formulating an open and flexible curriculum framework to tie in with the aims of education. Based on the framework, the CDC will also prepare curriculum guides that will outline the learning experiences to be provided and the attitudes, abilities and knowledge to be cultivated at every key learning stage of school education. Different examples will be provided for teachers' reference. Schools are expected to develop their school-based curricula basing on the framework. We recommend that in the process of formulating the curriculum framework and curriculum guides, the CDC should

pay particular attention to enhancing the interface between the curricula of different learning stages. Consideration should also be given to dovetailing the curriculum reform with the relevant reform proposals put forward by the EC (e.g. reform proposals relating to the admission of P1 and S1 students as well as Basic Competency Assessments in Chinese, English and Mathematics, etc.) The CDC would consult the education sector and the public in November on the new curriculum framework, short-term and long-term implementation strategies as well as support measures.

Participation of experts

8.2.25 To design a new curriculum framework and curriculum guides that will better meet the expectations and practical needs of the society, the CDI has invited, as necessary, experts in curriculum design, teaching, assessment and different learning areas as well as experienced teachers and sectors concerned (e.g. professionals and employers) to participate in designing and developing the curriculum.

Reference to international experience

8.2.26 At the same time, the CDI is making reference to the latest trends in curriculum development around the world. It will also pool the wisdom of local and international experts in curriculum development, teaching research, assessment, evaluation and different learning areas through constant exchanges of experiences.

Streamlining the process of curriculum development

8.2.27 The curriculum must keep pace with the times and the changes of the needs of learners. The new curriculum framework will be more open and flexible to allow schools to develop school-based curricula. The CDC, in collaboration with the Hong Kong Examinations Authority (HKEA), will review the interface between curriculum development and the public examination process continuously so that the work of curriculum updating can be conducted more effectively and efficiently in future.

(2) Professional support

8.2.28 To pave way for successful implementation of the curriculum reform, apart from providing a curriculum framework and curriculum guides, relevant professional support should also be provided to schools and teachers.

Develop and disseminate successful experience

- The CDI will develop and conduct research on the key items of the curriculum reform, and will work with tertiary institutions, interested schools and seconded teachers to develop practical experience in implementation.
- Exchange and disseminate successful experiences through the networks of schools and teachers.
- Set up an online database of teaching resources, to provide schools with information on teaching resources, support services and successful experiences.
- The sectors concerned (such as district school networks or community services organizations) are encouraged to set up district networks on their own initiative to strengthen cooperation between schools and the other supporting sectors.

On-site support

- Efforts are being made by the ED to strengthen the services of its curriculum support teams for primary and secondary schools, to help them nurture curriculum leaders and to provide professional advice and assistance in developing school-based curriculum.

Professional development programmes

- To strengthen the element of ‘curriculum development and leadership’ in the training programmes for school principals.
- The CDI is now preparing teacher training courses on different themes to meet the needs of reform. The courses will be provided in many modes, and online courses for this year include ‘Curriculum and Assessment’, ‘Catering for Students’ Different Needs’, ‘Learning Motivation’, ‘English’ and ‘Gifted Education’. Courses in other learning areas will be introduced by stages in 2001.

(3) Promotion of Key Tasks

8.2.29 As a key task in promoting the curriculum reform and changing the learning and teaching culture, we propose the ED to step up their efforts in promoting moral and civic education and a reading culture in schools, as well as encouraging schools to make use of project learning and information technology properly to enhance students’ learning effectiveness. Our proposals in this aspect are set out at Appendix II.

Basic Competency Assessments in Chinese, English and Mathematics

Objectives of the assessment

8.2.30 To enhance the effectiveness of the assessment mechanisms in facilitating learning and teaching, the EC proposes to introduce Basic Competency Assessments in Chinese, English and Mathematics (BCA) to:

- (a) enable teachers and parents to understand students’ learning needs and problems so as to facilitate timely assistance. Apart from helping students attain basic standards, appropriate measures should also be implemented to help students develop their various potentials;
- (b) provide the Government and school management with information

on schools' standards in key learning areas so that the Government will be able to provide support to those schools in need of assistance, and to monitor the effectiveness of education policies.

In parallel with the preparation of the BCA, the Government will further improve the existing Hong Kong Attainment Test (HKAT) to strengthen its function in facilitating learning and teaching. When fully implemented, the BCA is expected to gradually replace the existing HKAT.

8.2.31 Feedback received by the EC during the consultation period generally supported the introduction of the BCA. There are also some constructive suggestions on the mechanisms. Having considered these views, the EC puts forward the following recommendations.

The design of assessments

8.2.32 The proposed BCA will comprise two parts, namely Student Assessment and System Assessment.

8.2.33 Student assessment will mainly be conducted on-line. It serves to provide schools with an additional effective tool for conducting internal assessment. Schools may make use of this type of assessment to supplement other modes of internal assessment (including paper-and-pencil tests and observing students' performance in learning activities and project work) according to students' needs so as to monitor students' learning progress and needs more comprehensively and effectively, thus facilitating early detection of problems and timely provision of guidance and support.

8.2.34 System assessment will be administered centrally and conducted at the territory-wide level. It serves to provide information on whether schools have attained the basic standards in the key learning areas. This would help schools formulate plans to improve the effectiveness of learning and teaching on the basis of the assessment data and their own development needs.

8.2.35 Our detailed recommendations on the BCA are set out at Appendix III.

8.2.36 During the consultation, there were suggestions that a tool should be put in place to assist in gauging students' standards in the key learning areas (e.g. Chinese, English and Mathematics). We consider that it is necessary for the Government to commission an independent body to assess students' standards through appropriate means to regularly evaluate the

effectiveness of the education reform. However, it should be conducted separately from the system assessment mentioned above. The Government may consider the following proposals:

- (a) this assessment should serve to reflect the overall standards of all students in Hong Kong rather than the performance of individual schools or students. It should not be high-stake;
- (b) students will participate in the assessment through sampling; and
- (c) there may be different bands of performance in the assessment results.

Implementation

8.2.37 The scope of Student Assessment will be wider than that of the System Assessment in terms of content, format and item type. As the former will serve as the basis for developing the latter, we should start developing the Student Assessment programme first. In addition, the basic attainment standards in various learning areas should be set before System Assessment is implemented.

8.2.38 Since the System Assessment and the Student Assessment are closely related, they should be co-ordinated by the same body. The Government may consider commissioning an independent body to undertake this work.

Time Schedule

8.2.39 We expect the prototype of Student Assessment can be piloted in mid-2002 with full implementation at all levels from P1 to S3 in 2005/06. In view of the fact that the System Assessment programme will be developed on the ground work of Student Assessment, we propose the following implementation time-table:

<u>Proposed date</u>	<u>Student Assessment</u>	<u>System Assessment</u>
2000/01	Under preparation	Under preparation
2001/02	P3	Under preparation
2002/03	P4, P5 and P6	Under preparation
2003/04	S1 and S3	P3
2004/05	S2	P6
2005/06	P1 and P2	S3

Supporting conditions

8.2.40 The development of the BCA requires considerable resources and manpower. Whilst the provision of hardware is essential, the ‘software’ that promotes a change in culture is crucial to the success. There would need to be a change in the assessment culture and the culture for applying information technology in education.

8.2.41 The current assessment culture in Hong Kong is still steeped in traditions. The ultimate purpose of assessment should be to provide information that helps to promote learning and teaching, and forms part of the teaching process. However, in reality, tests and examinations have become the baton directing learning and teaching. Emphasis is not placed on how much students have learnt or whether teachers, parents and students themselves have a clear picture of students’ learning progress, but rather on scores, ranking and grades. Furthermore, to facilitate marking and scoring, assessments are based on standard answers which hinders the development of critical thinking skills and reduces students’ motivation for self-learning. In short, teachers, students, parents and the society in general should shake off their traditional concept of assessment and embrace the new assessment culture.

Reform of the School Places Allocation System

Guiding Principle

8.2.42 The reform of the systems for allocating primary one and secondary one places should serve to remove obstacles to learning and to create more room for learning and teaching, thus allowing students to have a coherent and comprehensive learning life.

(I) Reform of Primary One Admission System

8.2.43 The proposals for reforming the Primary One Admission (POA) system put forward by the EC are based on the following rationales:

- to basically adopt “the principle of vicinity” in allocating school places;
- to avoid using children’s ability as the admission criteria so as to reduce the incentive for drilling children in early childhood education;
- to remove unfair elements in the existing point system for admission to primary one; and
- to allow primary school to retain a certain degree of autonomy in the admission of pupils so as to maintain their culture and characteristics.

8.2.44 Views received during the consultation generally supported the above rationales. However, there were many different views on the detailed mechanism, in particular with regard to issues such as the right to choose schools and the right to choose pupils as well as the proportion of discretionary places and centrally allocated places.

The Reform Proposals

8.2.45 Having considered the public views, the EC proposes to implement the reform of the POA system by two stages, i.e. to implement the short-term mechanism in 2002/03 to 2004/05 and long-term mechanism from 2005/06 onwards. In the short-term mechanism, 50% of the primary one places will, in principle, be earmarked for central allocation. The remaining 50% will be discretionary places and places for admitting all applicants with siblings studying or parents working in the school applied for (if the number of applicants in this category exceeds 30% of the P1 places of that school, the shortfall should be made up by the places earmarked for central allocation). After the interim period, each primary school would be allowed to allocate 20% of its primary one places according to the admission point system. Besides, all applicants with siblings studying or parents working in the school applied for will be admitted. All the remaining places will be allocated centrally.

Specific proposals for the short-term and long-term mechanisms are set out below:

	Short-term Mechanism (2002/03 - 2004/05)	Long-term Mechanism (2005/06 onwards)
<p><u>Discretionary Places</u></p> <p>(i) places to be allocated according to a point system</p>	<p>(In general, this category takes up about 50% of the primary one (P1) places)</p> <ul style="list-style-type: none"> • Each school may allocate not less than 20% of its P1 places in accordance with the existing point system. Principals' 10 discretionary points are removed. 	<p>(In general, this category takes up about 40%-50% of the P1 places)</p> <ul style="list-style-type: none"> • each school may allocate 20% of its P1 places according to a publicized point system. • The Government should review the point system before implementing the long-term mechanism.
<p>(ii) places to be allocated to applicants of the category specified in the next right column</p>	<ul style="list-style-type: none"> • To facilitate escorting pupils to and from school, all applicants with siblings studying or parents working in the school applied for will be admitted. • Each school is required to reserve 30% of its P1 places for admitting applicants of this category. • If the number of applicants in this category is less than the earmarked 30%, the unallocated places can be allocated by the school according to the point system stated in item(i) above. • If the number of applicants in this category exceeds the earmarked 30%, the shortfall will be made up by school places earmarked for central allocation. The number of discretionary places allocated by schools according to the point system stated in item (i) above will not be affected. 	<ul style="list-style-type: none"> • All applicants with siblings studying or parents working in the school applied for will be admitted. • Applicants of this category will not be counted in the 20% discretionary places stated in item (i) above.

	Short-term Mechanism (2002/03 - 2004/05)	Long-term Mechanism (2005/06 onwards)
(iii) common principles	<ul style="list-style-type: none"> • The two categories of applications in (i) and (ii) above will not be subject to any restriction on school nets. • Each applicant can only apply for one of the above categories. • Schools should not conduct any form of assessment, including written examination and interview. If schools consider it necessary to meet the applicants to understand their needs, it should not affect the points given to the applicants 	<ul style="list-style-type: none"> • Same as stated in the left column.
Centrally Allocated School Places	<ul style="list-style-type: none"> • The principle of vicinity in allocating school places should be adopted as far as possible. • In principle, 50% of the P1 places should be earmarked for central allocation by computer according to school nets and parental choices. • If the number of applicants with siblings studying or parents working in the school applied for exceeds the reserved school places (i.e. in excess of 30%), the required additional places will be deducted from the number of places earmarked for central allocation. In such cases, the actual number of places used for central allocation will be reduced correspondingly. • Any unallocated discretionary places will be allocated by the ED centrally. 	<ul style="list-style-type: none"> • The principle of vicinity in allocating P1 places should be adopted as far as possible. • After deducting the discretionary P1 places allocated by schools as mentioned above, all the remaining places will be allocated by the ED centrally by computer according to school nets and parental choices. • In general, the percentage of P1 places allocated centrally is about 50% to 60%.
(i) Cross-net application	<ul style="list-style-type: none"> • One-tenth of the P1 places under central allocation will <u>not</u> be subject to restriction on school nets. 	<ul style="list-style-type: none"> • Same as stated in the left column.

	Short-term Mechanism (2002/03 - 2004/05)	Long-term Mechanism (2005/06 onwards)
	<ul style="list-style-type: none"> Parents may choose not more than 3 primary schools outside their own school nets. 	
(ii) Adjustment of school nets	<ul style="list-style-type: none"> The ED should make suitable adjustment of the school nets in order that, if practicable, there could be different types of schools in each school net for parents to choose. 	<ul style="list-style-type: none"> Same as stated in the left column.

8.2.46 The EC proposes to implement the short-term new POA system starting from the 2002/03 school year. This means that pupils studying in Kindergarten Three in the 2001/02 school year will be admitted to primary schools through the new POA system. The long-term new POA system is proposed to be implemented from the 2005/06 school year onwards.

(II) Reform of Secondary School Places Allocation System

A Through-road for Nine-year Basic Education

The long-term vision

8.2.47 As Hong Kong implements nine-year universal basic education, there is no genuine need for a highly selective mechanism for allocating secondary one (S1) places. Public assessment conducted for the purpose of allocating secondary one places inevitably dictates the learning in primary schools. It induces schools to place too much emphasis on the sections of the school curriculum covered by the assessment and “paper-and-pencil” tests, thus hindering the all-round development of students. In view of this, we propose the following long-term vision for reforming the Secondary School Places Allocation (SSPA) mechanism:

- (a) The nine-year basic education will become a coherent stage (a through road) during which pupils will no longer be required to take any high-stake public examination.
- (b) The allocation bands will be eliminated gradually to remove the labelling effect on schools and pupils.

Considerations for Formulating the Replacement Mechanism

8.2.48 In considering what new mechanism should be adopted to replace the existing SSPA arrangement, we have to take into account the following factors:

- respecting parents'/students' choices of schools;
 - allowing schools to develop their characteristics to promote diversity in education;
 - existence of different standards among schools and students;
 - teachers' abilities to handle students of mixed abilities;
 - motivation for schools and students to pursue excellence; and
 - fairness, reasonableness and feasibility of the mechanism.
- (a) To respect parents' and students' choices of schools, the SSPA mechanism should basically be based on the choices of parents/students. The proportion of discretionary S1 places may be appropriately raised so that students will have a greater chance of going to a school of their choice through direct application.
- (b) As the admission criteria for discretionary places can be relatively more diversified, secondary schools may consider applicants' overall school internal results (both academic and non-academic) and their performance in interviews to select suitable candidates in accordance with the secondary schools' own characteristics. Therefore, suitably raising the proportion of discretionary places will help to promote diversity in education.
- (c) If there is wide disparity in standards among schools, generally parents of high achievers will support a more selective allocation mechanism (e.g. one with more allocation bands) so that their children will have a higher chance of entering their preferred secondary schools. Nevertheless, if effective internal and external "enhancement" measures are in place, these parents may be more willing to accept a reduction in the number of allocation bands.
- (d) If there is wide disparity in standards among primary students, secondary school teachers will need to equip themselves with

the knowledge and skills required for catering for students of diverse abilities and secondary schools will also need to implement appropriate measures (such as curriculum adaptation and collaborative teaching) to facilitate effective learning of students. To phase out allocation bands, it is necessary to implement effective “remedial” measures for students in primary schools and help secondary school teachers enhance their abilities to cater for students of mixed abilities.

- (e) Public assessment can at most generate external learning motivation for students. To promote life-long learning, it is necessary to induce students’ internal motivation for learning. To this end, the most effective means is to cultivate students’ interest in learning so that they will derive pleasure, satisfaction and a sense of achievement from learning. This would induce them to take the initiative to learn and pursue excellence. Nevertheless, we recognize that to a certain extent external motivation is still necessary. For this reason, the proposed SSPA mechanism will still be based on students’ school internal results. In order to get better allocation results, students must still work hard and perform well.

8.2.49 Due to the above considerations, the vision outlined in paragraph 8.2.47 cannot be attained at one go, but progressively while the necessary pre-conditions develop. Therefore, we propose to put in place a transitional mechanism first and then progress gradually towards the long-term goals.

Abolition of the Academic Aptitude Test

8.2.50 As the first step in reforming the SSPA System, we proposed that the Academic Aptitude Test (AAT) should be abolished immediately.

8.2.51 The purpose of introducing the AAT was to provide a tool for scaling schools’ internal assessment results for the purpose of allocating S1 places. The test was designed to assess students’ reasoning ability. In principle, there was no need for students to make any preparation. But as the result of the test had a bearing on the allocation of S1 places, some schools drilled their students for the test. The curriculum in primary schools was therefore much distorted, affecting students’ comprehensive learning life and hampering their whole-person development. The situation had become so worrying that a resolute

decision had to be made to abolish the AAT immediately.

8.2.52 During the consultation, the public generally supported the abolition of the AAT in the 2000/01 school year. Many parents strongly requested that the decision on whether to abolish the AAT in 2000 should be announced before the end of the 1999/2000 school year. Furthermore, most respondents agreed that the interim mechanism as proposed in paragraph 5.2.53 of the Consultation Document should be adopted during the transitional period as a stop-gap measure. Having considered the public comments, the EC recommended to the Government in early July that the AAT should be abolished in the 2000/01 school year and that, during the transitional period, basically the average of each primary school's AAT results in the 1997/98, 1998/99 and 1999/2000 school years should be used to scale students' school internal assessment results for the purpose of determining their allocation bands. We noted that the Government had announced in early July its decision to abolish the AAT in 2000 and to use basically the above proposed interim SSPA mechanism during the transitional period. Public consultation on details of the transitional mechanism continued during the remaining consultation period up to 31 July 2000.

Interim SSPA Mechanism

8.2.53 During public consultation, we received a lot of public comments on the specific arrangements of the interim SSPA mechanism. Having considered these views, we propose to adopt the following mechanism for allocating S1 places of public-sector secondary schools, starting from the 2000/01 school year.

8.2.54 The interim SSPA mechanism will basically retain the various elements in the old SSPA system. Broadly speaking, there will be two components, namely "discretionary places" and "central allocation":

Discretionary Places	<p>(i) The percentage of discretionary S1 places will be increased from 10% to 20%;</p> <p>(ii) each student can only apply for one school, not subject to restriction on school net;</p> <p>(iii) interviews will be allowed but no written test should be conducted. Secondary schools should announce their admission criteria and the weightings adopted (since schools will need some time to make preparation, we suggest that the ED should carefully consider when the requirement for announcing admission criteria should take effect);</p> <p>(iv) schools are encouraged to consider the performance of students in all aspects.</p>
Central Allocation	<p>(i) In brief, central allocation of S1 places will be conducted according to parents'/students' choices, allocation bands and school nets;</p> <p>(ii) each student's school internal assessment results will be scaled by the average of his/her primary school's AAT results in the 1997/98, 1998/99 and 1999/2000 school years to determine his or her banding;</p> <p>(iii) the "school internal assessment results" mentioned in item (ii) above refer to students' school internal assessment results for the second half of P5 school term and the whole P6 school term;</p> <p>(iv) The number of bands will be reduced from 5 to 3. Each band will be of an equal proportion.</p>

(a) Transitional period

8.2.55 We initially propose that the transitional period should be 5 years (i.e. from the 2000/01 to 2004/05 school years). Subject to the results of the interim review to be conducted at the beginning of the 2003/04 school year, a decision will be made on whether to shorten the transitional period and advance the implementation of the post-transition SSPA mechanism.

(b) Internal assessment

8.2.56 Students' school internal assessment results will continue to be a major deciding factor in SSPA. We propose in paragraphs 8.2.20 to 8.2.22 that, as part of the curriculum reform, schools should adopt diversified modes of assessment progressively to reflect students' performance more comprehensively and effectively. The weightings accorded to academic and non-academic subjects should be reviewed to tie in with students' all-round development.

(c) Scaling instrument

8.2.57 The EC proposes that more effective remedial and enhancement measures should be implemented by schools to help every student fully develop their potentials and to enhance students' overall standards. However, these measures will take time to yield results. In the transitional period, it will still be necessary to retain a scaling tool for SSPA. As an interim measure, we propose to use the average of each school's AAT results in the 1997/98, 1998/99 and 1999/2000 school years for scaling purpose. Since there is a high degree of stability in school's AAT results over the past several years, researchers have tried to use the average of each school's AAT results over the previous three years to predict the AAT results for the following few years, and found that the accuracy was high, and therefore proposed that it could be used as a substitute for the AAT as a scaling instrument for the coming five years.

Arrangements for new schools

8.2.58 We propose to adopt the following methods to scale the internal assessments of new schools:

- (i) Schools which have not participated in the AAT in the 1997/98, 1998/99 and 1999/2000 school years at all

To use the average AAT results of all schools within the same school net in the above three school years.

- (ii) Schools which have taken the AAT at least once but less than three times in the 1997/98, 1998/99 and 1999/2000 school years

In calculating the average of a “new” school’s AAT results in the above three school years, for the year(s) in which the school has taken part in the AAT, that school’s actual AAT results should be used. For the rest of the above three year(s), the average AAT results of all schools within the same school net in the above three school years should be used.

“Progressing” Schools

8.2.59 During the consultation, some people held the view that for those schools which had marked improvements in their AAT results in the recent years, special treatment should be made to recognize their efforts.

8.2.60 We have considered the above views. However, it is very difficult to define “progressing” schools and the adoption of any definition would be highly controversial.

- (i) In defining “progressing” schools, should we take into account schools’ AAT results only or their overall performance?
- (ii) If we are to define “progressing” schools on the basis of schools’ AAT results, what criteria should be set? How can we draw a cutting line that is accepted by all schools as fair?

- (iii) If we are to define “progressing” schools by schools’ overall performance, is there an objective, widely accepted and quantifiable tool that can be used for this purpose ?
- (iv) We have conducted simulations to give a higher weighting to the best AAT result among the 1997/98, 1998/99 and 1999/2000 school years of every school but the findings revealed that such formula will generate great uncertainty for the results of all schools.
- (v) We expect that, with the increase in the percentage of S1 discretionary places, students of “progressing” primary schools will have a greater chance to go to their preferred secondary schools.

(d) Banding for school places allocation

8.2.61 Past experiences show that the labelling effect of banding undermines students’ self-confidence and adversely affects their interest in and effectiveness of learning. Moreover, students’ diverse abilities do not necessarily reduce learning/teaching effectiveness. The key is whether schools can make good use of the strengths of different students to help them complement each others. We understand that, to implement such measures effectively, certain conditions such as teacher training and support from all concerned parties are essential. Hence, we propose to reduce the number of bands initially from five to three and that the Government should render appropriate support to schools and teachers. The progress of schools in catering for students’ diverse abilities should also be closely monitored.

8.2.62 During the consultation, public views were divided on whether the number of bands should be reduced. Some were worried that fewer bands would mean greater diversity of student abilities in schools, thus affecting the quality of education. A solution to this problem lies in the implementation of effective remedial and enhancement measures. For the sake of students’ benefits, we propose that the number of bands should be reduced progressively.

(e) The proportion of discretionary places

8.2.63 Increasing the proportion of discretionary places suitably can help to promote the adoption of more diversified admission criteria and facilitate schools in admitting suitable pupils according to the schools' own culture. It can also provide primary schools and pupils with an incentive to work hard because if they do, they will have a greater chance to be selected by their preferred schools. In view of the above, we propose that, during the transitional period, the percentage of S1 discretionary places should be increased from 10% to 20%. During the consultation, the public in general supported this proposal.

The Post-transition SSPA System

8.2.64 During the public consultation, there were diverse views on whether school internal assessment results should become the only basis for determining students' allocation bands, starting from the 2005/06 school year. Those who supported this proposal considered that, in the absence of any public assessment for SSPA, schools would be able to focus on the whole-person development of students. As the mode of internal assessments could be relatively more diversified, it would be more desirable to use internal assessment results as the basis for SSPA. There was a suggestion that only those students who have not been allocated S.1 discretionary places should be counted when dividing the students of each primary school into three equal bands. Generally speaking, the better performing schools would have more students obtaining S1 discretionary places. One-third of the remaining students would still belong to Band 1. These schools would have relatively fewer Band 3 students in comparison with most schools in general.

8.2.65 In considering whether a public assessment for allocating S1 places should be retained, we must think through carefully the pros and cons of keeping the mechanism. Although there is difference in standards among schools, the implementation of a public assessment is certainly not the only or the best solution to this problem. We propose to assist schools through all effective channels so that all schools can achieve the basic standard and improve their overall performance. This would provide parents/students with more schools of good quality to choose from. We also suggest that under the proposed mechanism, the proportion of S1 discretionary places be progressively increased so that

parents/students will have more opportunities to choose schools directly and the better-performing students will have a higher chance of being admitted to their preferred secondary schools. If, on the contrary, the AAT were to be substituted by another public assessment, this assessment would inevitably become another high-stake examination given its effect on school places allocation. In consequence, schools, parents and students would again focus their efforts and attention on drilling. Senior students in primary schools would be deprived of a diversified learning life, thus hampering their whole-person development.

8.2.66 In view of the above considerations, the EC recommends that, subject to the results of the interim review mentioned in paragraph 8.2.67 below, the following post-transition SSPA mechanism should be implemented from 2005/06 onwards:

Discretionary Places	<ul style="list-style-type: none"> • The proportion of S1 discretionary places should be increased from 20% to 30%. • Each student may apply for two secondary schools. • Other stipulations will be the same as those of the interim SSPA mechanism.
Central Allocation	<ul style="list-style-type: none"> • Students in each primary school who have not secured a S1 discretionary place will be divided into three equal bands according to their school internal assessment results to determine the sequence of their S1 places allocation. • The Government will continue to allocate S1 places according to parents’/students’ choices, school nets and students’ allocation bands.

Interim Review

8.2.67 We propose to review in the first half of the 2003/04 school year the progress of implementing the interim SSPA mechanism. The aim is to assess whether the pre-conditions for implementing the proposed post-transition mechanism in paragraph 8.2.66 are in place, and to decide whether the number of bands and the proportion of discretionary places should be adjusted. We also propose that as soon as the interim SSPA mechanism is implemented, we must closely monitor the remedial and enhancement measures undertaken by schools and how well students' diverse abilities and learning needs are catered for. We should also monitor the overall standards of students in Hong Kong continuously in order to assess the effectiveness of the above measures. If any problem is detected, we should consider as soon as possible what feasible solutions should be adopted, including adjustments to the post-transition SSPA mechanism. On the other hand, if the pre-conditions are ready, we may consider shortening the transitional period and advance the implementation of the mechanism proposed in paragraph 8.2.66 above to the 2004/05 school year.

Equal Opportunities for Boys and Girls

8.2.68 The Equal Opportunities Commission (EOC) publicized its investigation report on the SSPA system last year. The report contended that the arrangements of separate scaling and separate banding for boys and girls in SSPA contained sexual discrimination.

8.2.69 Local and overseas studies indicate that there are marked distinctions between the development of boys and girls. We are of the view that, in considering what SSPA mechanism should be adopted, we must take into account both education principles and equal opportunities for boys and girls. We propose that when the post-transition SSPA mechanism in paragraph 8.2.66 is implemented, separate banding for boys and girls is not required. As for the arrangements during the transitional period, it will depend on the court's ruling on the EOC's application for a judicial review. Nevertheless, during the transitional period, the content and mode of internal assessments should be duly adjusted to take into account the needs for whole-person development and gender equality.

“Through-Train” Model

8.2.70 The essence of the “through-train” concept is to strengthen the collaboration between primary and secondary schools having the same education philosophy in order to provide students with a coherent learning experience and to realize the principle of “not giving up on any student”. To this end, we propose that students of the linked primary schools should be allowed to proceed to the linked secondary schools without going through the central allocation process. If students do not want to go to the linked secondary schools, they can either apply for the discretionary places of other schools or join the central allocation. It is **up to individual schools to decide** whether to apply to form a “through-train” or not. We recommend the Government consider such applications according to the following principles:

- (i) primary and secondary schools applying to form a “through-train” should have the same philosophy and aspiration for education; there should be genuine continuity in the curriculum, teaching methodology and students’ personal development; and
- (ii) based on the principle of “not giving up on any student”, the number of S1 places in a “through-train” must exceed the number of Primary 6 (P6) graduates, and the linked secondary school must admit all P6 graduates of its linked primary schools so that there will not be any unnecessary selection, and students of other schools will still have the chance to be admitted to the linked secondary school.
- (iii) Those primary and secondary schools applying to form a “through-train” must have the same financing mode to ensure that a consistent mechanism is applied in admitting students. (In this context, private schools and Direct Subsidy Scheme schools are regarded as of the same mode). If there is new development in schools’ financing modes in future, there may be a need to review this principle.

8.2.71 We will put forward our recommendations at Appendix IV on how to handle applications made by existing “feeder” or “nominated” schools for forming “through-trains”.

8.2.72 After admitting all P6 graduates of the linked primary school, the linked secondary school in a through-train may allocate half of the remaining S1 places at its discretion, provided that the proportion of discretionary places to the total number of S1 places in each linked secondary school should not exceed the prevailing permitted percentage of discretionary S1 places applicable to non-through-train public-sector schools.

8.2.73 In addition, we propose that the timetable for implementing the “through-train” model should tie in with the proposed interim POA mechanism, which is proposed to be implemented in the 2002/03 school year. To avoid advancing the pressure arising from competition for school places to the POA stage, the “through-train” model should be implemented no earlier than the 2002/03 school year. This restriction should not apply to new schools.

8.2.74 During the consultation, the public views on the “through-train” proposal were diverse. Those who were against this proposal were worried that the competition for places in popular schools would be advanced to the POA stage and that primary and secondary schools forming a “through-train” might become a closed system, denying access to other students. Some people were concerned that, in the “through-train” system, students might lack motivation to study hard. Moreover, some people also pointed out that teachers of “through-train” secondary schools might have to teach students of very diverse abilities. On the other hand, supporters of this proposal contended that schools adopting the “through-train” model would be able to plan ahead for their students’ learning life better to provide them with coherent basic education. The students might also have a stronger sense of belonging to the schools. We would like to stress that the “through-train” model is only one of the possible modes of operating schools. The forming of through-trains by primary and secondary schools is entirely voluntary. We believe that prior to applying to form a through-train, schools will have considered their own circumstances thoroughly to assess whether this model is suitable for them.

8.2.75 During the consultation period, there was a suggestion to allow kindergartens to form a “through-train” with subsidized primary and secondary schools. However, as kindergartens have full discretion in admitting students, implementing this proposal would bring forward to the early childhood education stage the pressure of competing for entry into popular primary and secondary schools. Those who cannot afford

the school fees charged by the linked kindergartens would be denied access to the linked subsidized primary and secondary schools. We therefore do not support this proposal.

8.2.76 Since the “through-train” model is a brand-new concept, we recommend that the ED look carefully into the specific arrangements for implementation and announce the details in early 2001 to facilitate schools’ consideration on whether to apply.

Section 3: Senior Secondary Education

8.3.1 Within the framework of life-long learning, senior secondary education should further consolidate students' foundation for pursuing life-long learning, help students understand their **aptitudes, interests and abilities**, and explore and develop their diverse potentials. With a good understanding of their own strengths and weaknesses, students will be in a better position to **plan for their future studies and career**.

8.3.2 Moreover, many students start working when they leave secondary schools. Senior secondary education should therefore help students develop their generic skills (including language, communication, numeracy and information technology skills as well as ability for teamwork) and positive attitudes and values, which are the **basic requirements for self-reliance and employment**.

8.3.3 During the consultation period, there was general consensus that senior secondary education should be diversified and provide multiple channels so that all S3 school leavers who are willing and able can pursue further studies or receive vocational training according to their abilities and aptitudes. Meanwhile, respondents generally supported broadening the senior secondary curricula, avoiding premature streaming of arts and science classes and improving the public examination system. The views on the proposed 3-year academic structure for senior secondary education were divided, but the majority were in support. Having considered the comments gathered, we now put forward the following proposals:

Develop a senior secondary education system providing diversified curricula and multiple channels

8.3.4 In senior secondary education, there should be different channels so that students can choose learning opportunities that best suit their aptitudes, interests and abilities.

8.3.5 Nowadays, it is difficult for junior secondary school leavers to seek employment. We recommend that the senior secondary education system should **provide all Secondary 3 graduates who are willing and able with opportunities of receiving further formal or vocational education**. This system should have the following characteristics:

- (1) There should be a variety of curricula to cater for students' different aptitudes, abilities, and learning needs.
- (2) These curricula could include those provided on the basis of the CDC's curriculum framework, those that emphasize employment-related learning experiences, and other types of curriculum (such as the International Baccalaureate Curriculum or other curricula recognised by tertiary institutions, professional bodies and employers). What is important is that the qualifications obtained on completion of such curricula is given due recognition for the purpose of employment and further studies.
- (3) These curricula could be provided by different education institutions, including ordinary schools which provide a complete secondary school curriculum, senior secondary / sixth-form colleges which focus on post-S3 education, and vocational training institutions. These institutions have their respective strengths and are able to tailor their programmes to their target students. Even for ordinary secondary schools, the flexibility and diversity of their curricula should be enhanced to cater for the different characteristics and needs of their students and to improve their life-long learning ability and employability.
- (4) All of these curricula should help to develop the students' generic skills (including language, communication, numeracy and information technology skills as well as abilities to work with others) as well as positive attitude and values in order to lay a good foundation for their future life, employment, and life-long learning. These curricula must be constantly modified to keep up with the times.
- (5) In a knowledge-based society, "vocational education" should have a new meaning. For many trades, vocational/technical education or training is conducted in the form of in-service or short-term training, or even in a "learn-as-you-work" fashion. In formulating our education system, we should not, as far as possible, confine our students prematurely to specialized and narrow-based knowledge or skills as this would not help them lay a broad foundation for future employment.

Interface between nine-year basic education and senior secondary education

8.3.6 Senior secondary education should continue to be non-compulsory and allow students to make the choice according to their own interests and abilities. The EC reckons that in Hong Kong, young people who are willing and able should be allowed to receive senior secondary education.

8.3.7 When the senior secondary education system is able to provide learning opportunities for all S3 graduates who are willing and able to pursue further studies, we recommend that a new mechanism should be put in place for the interface between nine-year basic education and senior secondary education, which is based on the following principles:

- (1) Those S3 graduates who are willing and able should be allowed to proceed to the senior secondary level within the same school as far as possible if they so wish;
- (2) Schools to make “school-based” decisions to allocate their S4 places and S3 repeater places flexibly to their S3 graduates on the condition that no additional public resources are incurred. Schools may adopt repeating or cross-grade setting for certain subjects to attain the best learning effect;
- (3) In determining whether individual students should be promoted to S4, we recommend schools to consider whether they have attained the basic standards in Chinese, English and Mathematics and their overall performance in the school ;
- (4) The duration of subsidized junior secondary education received by each student should not exceed five years (including years of repeating);
- (5) After taking in all their own students, schools may allocate the remaining school places to students from other schools at their own discretion;
- (6) Students not offered school places in the original school or who choose to change school may apply for places of other schools or other types of courses;

- (7) Any remaining school places after the above steps are completed will be allocated centrally by the Government to those S3 graduates who have yet to secure a school place.

8.3.8 During the public consultation, some people suggested to retain the central allocation mechanism between S3 and S4 on the grounds that allowing mainstream secondary schools to allocate S4 places at their discretion would reduce the opportunity of S3 graduates from schools not offering senior secondary classes (e.g. social development schools) to pursue further studies. We consider that it is in line with the spirit of school-based management to allow schools to allocate the remaining places at their discretion. It will also give students more chances of applying directly to secondary schools of their choice. Nevertheless, in the final stage, central allocation will still be conducted to allocate the remaining places.

Implementation Timeframe

8.3.9 We propose that senior secondary learning opportunities should be increased progressively through various means according to the above recommendations. The above proposed new S3-S4 interface mechanism should be in place no later than the eighth year after the implementation of the proposed interim SSPA mechanism (i.e. in or before 2008 when those students who are admitted to S1 in the last year of implementing the proposed interim SSPA mechanism in paragraph 8.2.54 above are promoted to S4). During the EC's consultation, some members of the public proposed to accelerate the increase in senior secondary school places to enable public-sector secondary schools to become symmetrical as soon as possible so that those students who were willing and able could be promoted to the senior secondary level within the same school. Having considered these views, the EC recommends that the Government should, subject to the availability of resources, accelerate the increase in S4 and S5 places as far as practicable. Apart from turning some of the existing asymmetrical schools into symmetrical ones, consideration may also be given to increasing the places of vocational training courses and encouraging the establishment of diversified senior secondary colleges so as to give students more choices.

Academic structure of senior secondary education

(1) The existing structure

8.3.10 Some people have pointed out that our existing S4 and S5 curriculum focuses on preparing students for the Hong Kong Certificate of Education Examination (HKCEE), whilst that of S6 and S7, which only accommodate about 34% of the S5 graduates, emphasizes helping students gain entry into universities. This ‘2+2’ academic structure in effect dissects students’ studies after S3 into two sections with different emphases. Since students have to complete a full curriculum and prepare for a public examination in about one and a half years, they have limited time for participating in other learning activities. Moreover, as the two-year sixth form curriculum is designed to meet universities’ requirements, the course contents are rather specialized and difficult. As a result, students’ scope of learning is rather narrow and certain parts of the curriculum overlap with the universities’ first degree programmes.

(2) Envisaged structure for senior secondary education

8.3.11 Internationally, the academic structure and length of study in higher education have been evolving continuously to cater for the needs for life-long learning in a knowledge-based society. The common trend is to broaden the scope of learning in the universities and to defer the process of specialization. The existing S6 and S7 curriculum is de facto pre-university education which advances the university curriculum to the secondary school level. The number of subjects is limited and students are forced to engage in specialized learning prematurely. A change of the academic structure of senior secondary education from “2+2” to “3” years is in line with the international trend of higher education development.

8.3.12 Senior secondary education is closely linked to higher education. For many years, teaching staff of the higher education sector have been calling for a change to the academic structure of university education in the hope that students will be allowed more room to build up a broader knowledge base. This is in line with the trend mentioned above. This does not mean that the EC would like to see all first-degree programmes adopting the same duration. A 3-year senior secondary academic structure does not necessarily require first degree programmes to be 4 years. However, if the students can enter university one year earlier, the universities will have more room in providing higher

education.

8.3.13 With regard to the academic structure, the adoption of a continuous 3-year senior secondary academic structure will facilitate the implementation of a more flexible, coherent and diversified senior secondary curriculum. Students will have more room to experience a diversified learning process as well as to take up modules straddling different learning areas. They will be able to build a broader knowledge base and a more solid foundation for pursuing life-long learning. As compared with the existing structure, more students will be able to study S6 under the new structure. This is conducive to upgrading the knowledge, abilities and quality of students as well as helping them meet the needs of the 21st Century.

8.3.14 The ultimate aim of the proposed reform of the senior secondary academic structure is to upgrade the quality of our students. Hence, the proposal is made not simply to let young people stay in school for one more year, but to enable all students to have a more in-depth learning experience in preparation for life-long learning in a knowledge-based society. In this light, the proposal to replace the existing two examinations by a new examination is not purely for the purpose of reducing the frequency of examinations, but to create more room for students to enrich themselves effectively in the prime time of their lives.

8.3.15 In addition, we propose to explore the feasibility of adopting a modular approach in the senior secondary curriculum and providing more than one exit point at senior secondary level. This is to provide school leavers who decide not to complete their senior secondary education with the opportunity of sitting the core-competence part in the Chinese, English and Mathematics subjects and those modules they have completed in the new public examination, as a means to obtain the required academic certification.

(3) Issues concerning the implementation of a 3-year senior secondary education system

8.3.16 The above analysis shows that the proposed 3-year academic structure can provide many favourable conditions for pursuing learning at senior secondary stage. However, for such a structure to be implemented, we have to consider at the same time the university academic structure and other related education reforms. A detailed study of the supporting conditions and transitional arrangements for

implementing the new structure should also be conducted.

(i) Other education reforms related to the reform of the academic structure of senior secondary education

(a) Increasing post-secondary learning opportunities and widening access to higher education

8.3.17 Under the proposed “3-year” senior secondary education, the majority of the young people will complete senior secondary education. In such circumstances, the number of candidates taking the public examination at the end of this stage will increase significantly. If the number of post-secondary learning opportunities remain unchanged, there will be even keener competition for tertiary places. Hence, in parallel with the implementation of the proposed senior secondary academic structure, a diversified higher education system must be developed so that a considerable number of learning opportunities are available to secondary school graduates. The courses offered by these institutions should secure appropriate recognition. These courses may even be articulated with degree programmes.

(b) Universities to adjust their first-degree programmes in respect of duration of study and contents

8.3.18 The reform of senior secondary academic structure is closely related to the duration of study of first degree programmes. Although not all senior secondary graduates will pursue university education, the proposed 3-year senior secondary education will mean admission to the universities one year earlier (normally at the age of 18) for these young people. Moreover, with the reform of the senior secondary curriculum, the scope and depth of different subjects will be greatly different from that of the present matriculation curriculum. When the universities reform the length of study and contents of their programmes, they will have to take into consideration the circumstances of the senior secondary graduates under the proposed new academic structure of senior secondary education. Likewise, any reform to the senior secondary curriculum will have to take heed of the development in the reform of higher education curriculum.

(c) Universities to reform their admission system

8.3.19 To tie in with the change of senior secondary academic structure, the university admission system must also be reformed. Universities are now proceeding with the reform of their admission systems towards the direction of placing less emphasis on academic subject results and paying more attention to non-academic performance, reducing the degree of specialization, upgrading the quality of learning and focussing on the strengths of individual students. This is beneficial to the reform of the senior secondary curriculum. If the reform of the senior secondary academic structure proves to be successful, with the reduction of public examination pressure, enrichment of diversified learning experiences as well as giving full play to individual strengths, our universities will also be able to take in more excellent students.

We will discuss the above points in detail in other parts of this report.

(ii) Supporting conditions

8.3.20 The following conditions would have to be in place if a 3-year senior secondary academic structure is to be adopted:

(a) Senior secondary curriculum reform

8.3.21 Senior secondary curriculum reform is the core element of the reform of senior secondary academic structure. However, even before the review of the senior secondary academic structure is completed, the curriculum reform and improvement of teaching methods will have to be carried out and piloted progressively. Schools may take the initiative to carry out certain important elements of the curriculum reform such as using diversified teaching materials, broadening curricular contents and providing diversified learning experiences. If the 3-year senior secondary academic structure is adopted, the CDC will have to design a 3-year senior secondary curriculum, based on the foundation of the existing one, to tie in with the new academic structure.

(b) Designing a new public examination

8.3.22 Converting from the '2+2' to the 3-year academic structure will require developing a new public examination to replace the existing HKCEE and HKALE. This examination should serve the dual functions of an exit assessment for secondary school education as well as selection for admission to higher education. This new examination must have the recognition of local and overseas organizations concerned.

(c) Preparation of schools and teachers

8.3.23 Reform of the senior secondary academic structure involves fundamental changes to the education concept and paradigm shift in teaching. It will require greater modification to various aspects of school life. Hence, there should be sufficient room for schools and teachers to make adjustments in aspects such as the use of resources, arrangement of learning time, training and management.

(d) Re-organization of class structure and provision of new school places

8.3.24 At present, about 34% of S5 graduates of public-sector schools can proceed to S6 and S7 in public-sector schools. If the new senior secondary academic structure was implemented, it is envisaged that most students would complete Senior Secondary 3 education. Hence, the class structure would need to be re-organized and more classrooms might have to be provided in existing school premises. It would also be necessary to build a considerable number of new school premises.

(iii) Transitional arrangement

8.3.25 There are two possible ways in which the current system could transit to the 3-year senior secondary education system, either changing at one go across the board or by batches and by phases. Both approaches have their merits and demerits. There will be technical problems related to allocation of secondary school places, provision of senior secondary school places, public examination and university places arising from parallel implementation of the two systems during the transition.

The task force mentioned in paragraph 8.3.31 below will examine the technical problems of the transitional arrangement in the course of studying the feasibility of the proposed new senior secondary academic structure.

(4) Views of the Public

8.3.26 During the consultation conducted by the EC, there were diverse public views on the proposals for a 3-year senior secondary academic structure and having only one public examination at the end of senior secondary education. However, the majority was in support of these proposals.

8.3.27 Those who supported the proposed 3-year senior secondary academic structure considered that it would give students more room for learning and allow them to better develop their interests and potentials in different areas whereas the decrease in the number and frequency of public examinations would help to alleviate the pressure on students. Moreover, some were of the view that the contents of the existing matriculation curriculum were too difficult and specialized and they overlapped with part of the undergraduate programmes. Changing to 3-year senior secondary academic structure could not only avoid overlapping of curricula and wastage of resources, but would also allow students to pursue a more diversified curriculum, which would be beneficial to students' personal development, further studies and future employment.

8.3.28 Those who opposed the proposal contended that under the proposed structure, students who did not have the aptitude and capability for further study would be forced to stay one more year in school, which meant a waste of their time and resources. They also pointed out that with the abolition of the AAT for P6 pupils, implementing a 3-year senior secondary academic structure would mean that students would only be required to sit one public examination throughout their 12-year primary and secondary school education. Under these circumstances, students would not have the drive to study hard. On the other hand, as the proposed new public examination would have to serve the dual functions of selection and academic certification, the pressure on students would be greater. There were also worries that as the level of the proposed new public examination would be higher than that of the HKCEE, there would be a greater number of students becoming losers. Some people also held the view that the present HKALE was well recognized and the hasty abolition of it might reduce

the competitiveness of local outstanding students in applying for entry to renowned overseas universities.

8.3.29 In response to these comments, thorough consideration should be given to the following issues in studying the merits and demerits as well as the feasibility of a 3-year senior secondary academic structure:

- (a) some students may have to leave schools to take up employment after they complete S5 due to financial reasons. Implementation of the proposed academic structure may affect those students who decide to take up jobs after they complete S5 because the degree of recognition of the academic certification that they would obtain under the new system might not be comparable to that of the HKCEE;
- (b) currently some of the universities in other places are offering 3-year first-degree programmes. Hence, the issue of articulation with these programmes should be addressed;
- (c) currently some of the local students pursue other types of matriculation courses (e.g. the International Baccalaureate Curriculum) after they finish S5. Hence, it is necessary to consider how the proposed 3-year senior secondary education structure could articulate with these courses;
- (d) it is also necessary to ensure that the proposed senior secondary education structure can be articulated with the existing diploma and higher diploma courses;
- (e) wide recognition from local and overseas tertiary institutions would need to be secured for the proposed new senior secondary curriculum and the new public examination;
- (f) if 3-year senior secondary academic structure and 4-year first-degree programmes are to be implemented, huge additional resources would be required. UGC-funded institutions indicated that implementation of 4-year first-degree programmes would require an increase in their annual expenditures.

8.3.30 After taking into consideration the public views, we are of the opinion that before deciding whether to adopt a 3-year senior secondary academic structure, we should study thoroughly the problems involved, explore solutions and work out a detailed and feasible plan for implementation.

(5) Review in 2002

8.3.31 The EC will set up a working group to examine the feasibility of implementing the proposed 3-year structure for senior secondary education and formulate detailed proposals as well as the implementation timetable. It will submit its recommendations to the Government in 2002. Meanwhile, the University Grants Committee (UGC) will work with its funded institutions to review issues that would need to be resolved if the proposed 3-year senior secondary education were to be implemented, including necessary adjustments to the university admission system as well as the length of study and contents of the first-degree programmes, additional resources required and ways to resolve the resources problems.

Reform of the senior secondary curriculum

8.3.32 The recommendations for reforming the senior secondary curriculum are based on the overall curriculum reform as described in Section 2(A) of this Chapter. A curriculum is not the same as a combination of examination subjects. Students' performance can be reflected in different ways, and examination is just one mode of assessment. In choosing the subjects to be taken in the examination, students should take into consideration factors such as their aptitudes, abilities and expectations of the society.

(1) Focuses of the reform

8.3.33 To achieve the aims of senior secondary education (see Chapter 4), we recommend the focuses of the reform of the senior secondary curriculum to be:

- (i) To provide the **five types of learning experiences** as described in section 2(A) of this Chapter so as to help students explore and develop their diverse interests and potentials, cultivate their moral values, civic consciousness

and national sentiments, and further enhance their generic skills (including communication, numeracy, learning, problem solving, information technology, critical analysis, creativity, collaboration and self-management) and important attitudes and values. Compared with basic education, senior secondary education should provide students with more **work-related experiences**, enhance their knowledge about the working life, help them develop a positive attitude towards work, and help them explore their own aptitudes and abilities to prepare them for future employment.

- (ii) To provide 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 analyze problems. Rigid streaming of arts and science curriculum should be abolished so that students can take arts curriculum incorporating science elements and vice versa according to their interests and abilities. The success of the curriculum reform counts very much on the reform of university admission system. When students at the senior secondary and matriculation level choose their subjects, the university admission criteria are their main considerations. If universities can minimize their stipulations on the type of subjects taken by students in secondary schools, students will have much wider options. This will enable them to choose subject combinations across more different learning areas.

8.3.34 In addition, an all-round learning experience is very important to the holistic development of students. Apart from giving students more choices and flexibility in choosing subject combinations, schools should also play more attention to developing students' potentials in sports and aesthetics to facilitate their healthy mental and physical development.

(2) Assessment/Record of students' overall performance

8.3.35 We propose in paragraph 8.2.21 of Section 2 that schools should adopt diversified modes of assessment, including formative assessment, to fully reflect students' performance. This recommendation is also applicable to senior secondary and matriculation stages. After completing secondary education, students

are usually required to provide evidence of academic qualifications and record of performance in school for the purpose of employment or further studies. To fully reflect students' personality and abilities in various domains, and to give them useful feedback, we recommend schools to conduct comprehensive assessments on and to record students' participation and performance in different learning activities.

8.3.36 Apart from recording students' internal examination results, schools may consider including the following information in the student portfolio:

- (i) Students' records of participation in different types of learning activities (e.g. sports, art, co-curricular activities, community services and work-related activities);
- (ii) Comments on students' participation in the above activities;
- (iii) Comments on students' personal qualities (including moral values, civic consciousness, enthusiasm to serve others, sense of responsibility, interpersonal relationship, leadership, perseverance and self-confidence, etc);
- (iv) Comments on students' multiple abilities (e.g. creativity, communication, organization, self-learning, and analytical skills as well as abilities to use information technology, etc.).

8.3.37 We propose that the CDI should provide schools with exemplars of the above forms of internal assessment for reference.

(3) Recommended change in examination subjects and combinations

8.3.38 In addition to the internal assessment record mentioned in (2) above, senior secondary students generally undertake courses for the HKCEE as well as the HKALE/AS Level in order to obtain certain recognized qualifications for the purpose of further studies and employment. To enable students to take courses across different learning areas, we have the following recommendations:

(i) Curriculum reform within the existing academic structure

8.3.39 The CDC has made the following recommendations within the existing senior secondary structure:

(a) For S4 and S5

(1) To introduce new S4 and S5 HKCEE subjects, such as

- Integrated Humanities
- Integrated Science and Technology

(2) Recommended subject combinations:

Chinese + English + Mathematics + A + B + other subjects chosen from the 8 key learning areas

“A” represents taking at least one subject in the key learning area of ‘Personal, Social and Humanities education’. If a student only chooses one subject from this learning area, the school should advise him/her to take ‘Integrated Humanities’.

“B” represents taking at least one subject in the key learning areas of ‘Science education’ or ‘Technology education’. If a student chooses altogether only one subject from these two learning areas, the school should advise him/her to take ‘Integrated Science and Technology’.

(3) To refine the curriculum for various key learning areas according to the latest aims of education and the latest curriculum framework proposed by CDC.

(b) For S6 and S7

(1) Changes in subjects

- To strengthen the part on project learning in the subject of Liberal Studies at the AS level with a view to enhancing students’ self-learning ability and critical thinking. Students may take those modules which are different from the specialized disciplines they have chosen (e.g. science students

may take Today's China, and arts students may take Science, Technology and Social studies);

- To revise as necessary the existing curricula at the HKCEE level and the AL/AS level and to enhance students' generic skills (e.g. creativity and problem solving skills, etc.) according to the latest curriculum framework proposed by CDC.

(2) Recommended subject combinations

- Use of English at the AS level +
- Chinese Language and Culture at the AS level +
- Liberal Studies at the AS level (one specialized module and one project) or one independent project +
- One AL subject and one AS level subject or two AL subjects (students may increase or decrease the number of subjects taken according to their own abilities)

(ii) Under the proposed 3-year senior secondary academic structure

(a) At the initial stage

- To extend the existing and the proposed S4/S5 subjects to S6 level (i.e. the new Senior Secondary 3)

(b) Long-term goal

- To gradually split the existing subjects (e.g. Geography, History, Physics, Chemistry, etc.) into various learning modules for students to choose according to their own interests and abilities
- To gradually introduce new elective modules so as to allow students more choices to suit their individual needs and abilities

- These courses can be academic, job-related, leisure/social, or project-based etc. In addition to classroom learning, there should also be co-curricular activities, community services and job-related experiences
- The elective courses under the key learning areas should be updated regularly to meet the development and the changing needs of the society

Public examinations

8.3.40 For the society and the individual, public examinations serve the functions of certification and selection. We acknowledge the value of public examinations which are viewed by many as a relatively fair and objective assessment mechanism, providing a chance for the grassroots to progress up the social ladder.

8.3.41 Because of the importance attached to public examinations, students' learning has become examination-oriented. To ensure that public examinations maximize their positive signalling effect, we recommend to improve the content, mode and marking system of public examinations.

8.3.42 We must also recognize that public examinations have their inherent limitations. It is not possible to evaluate students' overall abilities no matter how we try to improve public examinations. Therefore, apart from public examinations, other modes of assessment should be fully utilized to comprehensively assess students' performance and abilities.

8.3.43 In view of the above, the HKEA has made the following recommendations to reform the existing public examination system :

(1) Extending the 'Teacher Assessment Scheme'

8.3.44 The 'Teacher Assessment Scheme' is now in operation for a number of subjects at the HKALE level. Teachers evaluate their students' performance in certain aspects which are normally not assessable in public examinations. After appropriate moderation, these assessment records are included in students' public examination results. The HKEA recommends to extend the 'Teacher Assessment Scheme' to other subjects at the HKALE level and, when appropriate, consider which subjects in the HKCEE are suitable for

implementing the Scheme.

8.3.45 This assessment scheme has the following advantages:

- (i) it evaluates abilities which are normally not easily assessed through a paper-and-pencil test. It gives consideration to students' abilities in various domains and their overall learning process. This will encourage all-round development;
- (ii) it gives a fuller picture of students' performance and reinforces the positive effects of public examinations; and
- (iii) it helps to address the drawback of judging students on their performance in one single examination.

8.3.46 During the EC's consultation, the public generally supported the extension of "Teacher Assessment Scheme". However, some people were worried that the assessment standards of different schools might vary. In addition, this would also mean more workload for teachers. We recommend that the HKEA should thoroughly look into measures for moderating the assessment standards adopted by different schools with a view to enhancing the fairness and credibility of the Scheme. Teachers should be given appropriate training. The mechanism should be implemented at a gradual pace and reviewed from time to time.

(2) *Introducing core-competence approach to HKCEE subjects*

8.3.47 At present, the HKCEE follows the norm-referencing approach (commonly known as 'drawing curves'). An examination using this approach reflects individual candidates' performance in comparison with all other candidates. Yet, it fails to indicate whether the candidates indeed possess the basic skills and knowledge required of a S5 graduate.

8.3.48 To reinforce the HKCEE's certification function while maintaining the standards, the HKEA recommends to include a 'core-competence' part in the examinations to assess

the basic skills and knowledge considered by curriculum specialists to be essential for S5 students. The HKEA will adopt an approach similar to ‘criterion-referencing’ to measure students’ standards at this core-competence part, and candidates will be able to work towards objective standards without having to compare with the others. They will be awarded a grade E if they can achieve the basic attainment in the core-competence part of the subject examination.

8.3.49 The proposed ‘core-competence’ approach has the following advantages:

- (i) It reflects more clearly whether students have mastered the basic knowledge and skills. The HKEA will consider compiling grade descriptors for grade E so as to enhance the certification function of the HKCEE.
- (ii) It helps students identify the most essential elements of the curriculum so that they can concentrate on mastering the basics first before going further.

8.3.50 During the consultation, respondents in general supported the above recommendations. We expect the HKEA to adopt, at the earliest opportunity, the ‘core-competence approach’ in HKCEE, in particular in the Chinese, English and Mathematics subjects.

(3) Allowing S6 students to sit for the HKALE

8.3.51 Students should be given the opportunity to sit for public examinations according to their own pace and abilities. The HKEA recommends to allow S6 students to apply to sit the HKALE for some or all subjects, subject to the consent of their schools.

8.3.52 During the consultation, rather a lot of respondents supported the above recommendation. Some of them suggested that the examination should be held after mid-June so as not to affect students’ learning in the S6 year. As dates of the HKALE are closely related to the admission mechanism of the universities, we urge the HKEA and the universities to work together to examine the feasibility of postponing the

examination to June. We also call upon schools to, under the existing system, make full use of the time after the HKCEE/HKALE to arrange useful learning activities for students, e.g. co-curricular activities, visits, study tours or project learning, etc. The aim is to prepare them for further studies or employment through broadening their perspectives, developing their abilities in different aspects and consolidating their foundation in languages.

(4) ***Abolishing the fine grades in the HKCEE and HKALE***

8.3.53 At present, fine grades (i.e. classifying grades A to F into A(01) to F(12)) are provided in reporting students' performance in the HKCEE and the HKALE for university admission purposes. While universities are beginning to pay more attention to students' overall performance rather than relying solely on public examination results, the fine grades are no longer necessary. Since the HKEA has already announced that fine grades would be used in reporting the HKCEE and HKALE results in 2001, it recommends to abolish this system with effect from 2002. During the EC's consultation, the majority of respondents were in support of the above recommendation.

8.3.54 In addition to the above recommendations of the HKEA, the EC recommends the following measures to reform the public examination system:

- (1) To strengthen the linkage between examination papers and the basic knowledge and skills that need to be acquired by students, covering more issues that are related to students' daily lives.
- (2) To refine the mode and marking system of examinations to allow students more room for independent thinking and creativity, e.g. if students' answers are innovative or unique, they should be given marks so long as the answers are reasonable and relevant even if they are different from the model answers. This will help to discourage students from rote-learning.
- (3) To conduct the same examination more than once a year so that students do not have to wait for one whole year to re-sit the examination.

- (4) To examine the feasibility of introducing a public examination in Chinese and English covering different levels of proficiency and focusing more on practical use. Students can sit for this examination at various learning stages, or even when they are at work, to acquire the qualifications they need.

8.3.55 When the EC conducted the consultation, respondents in general endorsed the recommendations at (1) and (2) above. We also note that the HKEA has already adopted these as the guiding principles for designing examination papers and the marking scheme. We hope that the HKEA will reinforce these improvement measures further.

8.3.56 As for (3) above, the HKEA has the following preliminary views:

- (1) Secondary 6 students lacking HKCEE language qualifications would have one more chance of gaining the required qualifications if this proposal is implemented.
- (2) Chinese Language, English Language and Mathematics are the HKCEE core subjects. They serve relatively greater societal needs and merit special consideration.
- (3) This new examination should be offered to repeaters only.
- (4) A full-scale second annual HKCEE is not cost-effective.
- (5) There seems to be much less need to run a second HKALE even if just for the two languages (Chinese Language & Culture and Use of English) because a second HKALE would not help students gain admission to local universities in the middle of an academic year.

8.3.57 The HKEA will further study the feasibility of holding two HKCEEs for Chinese, English and Mathematics each year. The EC suggests that the above new examinations can be open to people who are working or are not pursuing formal secondary school programmes.

8.3.58 As for (4) in paragraph 8.3.54, respondents generally supported the recommendation. The HKEA will study its feasibility. If implemented, the new public examination may replace the relevant subjects in the HKCEE and the HKALE.

8.3.59 In addition, we recommend the HKEA and the CDC to work together to examine how to streamline the process of updating public examinations that are related to the school curriculum (in particular in the area of information technology) so that they can be promptly modified to tie in with the changes of the society.

Section 4 : Higher Education

To establish a diversified, multi-channel, flexible and interlinked system of higher education

To increase post-secondary learning opportunities

To nurture quality people who possess knowledge and virtues, broad-mindedness, commitment, global vision, creativity and adaptability

Definition of higher education

8.4.1 Higher education covers all learning opportunities above the secondary school level. Apart from universities, there are many other educational institutions (e.g. post-secondary colleges, extra-mural departments of universities and non-local tertiary institutions) which provide various higher education courses in Hong Kong.

Functions of higher education

8.4.2 One of the major functions of higher education is to train up quality people to contribute to the economic growth of Hong Kong. We need people who are cultured, aspiring, civic-minded and committed with a global vision to be the pillars of society. In a knowledge-based economy, we need to provide more opportunities for our young people to pursue higher education. The mission of higher education should not be confined to imparting knowledge and skills. Instead, it should provide students with training in the aspects of culture, emotion, moral conscience and mentality, with a view to nurturing capable leaders for the development of the society.

8.4.3 To view from a human resource angle, there are new requirements for “human resource” in a knowledge-based society. Strict division of labour and multi-layered structures which are typical of industrialized societies are being displaced by indistinct division of labour and fast-changing organizational structures. To solve problems that people may encounter both in life and at work, very often multi-faceted analytical skills as well as knowledge in multiple disciplines will be required. Thus, despite the development of increasing specialization of knowledge and skills, what the society needs is not narrow and over-specialized people. What we need is

people who have a broad knowledge base and are capable of grasping new knowledge and skills quickly at work. Against this background, the traditional practice of compartmentalizing students' learning according to the needs of different professions is subject to severe challenges. Higher education should therefore provide students with **learning experiences in multiple disciplines**, help them develop **broad-based knowledge and vision**, as well as enhance their problem-solving power and adaptability.

8.4.4 A good foundation in language is essential to lifelong learning. It is also essential in coping with a knowledge-based society. Whilst the development of language skills should start at the pre-school and basic education stages, it will remain the duty of higher education in the foreseeable future to further consolidate and enhance students' language proficiency and ensure that graduates have attained the language standards required.

A diversified higher education system

8.4.5 We envisage that a diversified higher education system should consist of the following components:

- (i) **Universities** - degree-awarding educational institutions.
- (ii) **Post-secondary colleges** - institutions which offer courses above secondary school level.
- (iii) **Continuing education institutions** - those continuing education institutions which provide different types of courses above secondary school level.

8.4.6 This system should contain the following features:

(i) **Student-focused:**

Students can choose learning modes and channels according to their abilities and needs, rather than being determined by teachers' arrangements or administrative convenience of the institutions.

(ii) Flexible academic structure:

There should be a flexible academic structure in higher education to facilitate the individual development of students and cater for the ever-changing needs of society.

(iii) A transferable credit unit and qualification system:

The EC considers it necessary to encourage tertiary institutions to work towards a transferable credit unit and qualification system among themselves so that credit units and qualifications acquired by students in different institutions will be duly recognized.

(iv) Diversity:

Tertiary institutions should build on their edges and develop their strengths into areas of excellence. Apart from focusing on academic studies, some of the institutions may focus more on employment-related education or students' development in other areas. By promoting diversity in the mode of education and participation of different sectors, Hong Kong's higher education system will become more flexible and diversified.

(v) Multiple entry and exit points:

It allow students to join, suspend or continue their higher education studies at any stage in their life according to their own needs and circumstances. The credits they have accumulated from completed learning units will be duly recognized when they resume relevant studies in future.

8.4.7 During the consultation conducted by the EC, it was generally supported that a diversified higher education system should be developed to increase post-secondary learning opportunities and options. Some respondents were of the view that in order to ensure the quality of university students, we should not only emphasize quantity. We agree that in promoting the development of our higher education system, importance should also be attached to the curriculum as well as the quality of students.

Reform proposals

8.4.8 Feedback received by the EC are generally in support of our proposals on review of first-degree programmes, enrichment of campus life, reform of the university admission system, development of a portable and transferable credit unit system, strengthening of quality assurance system, increase of post-graduate places and promoting the development of private higher education institutions. Some also put forth constructive opinions and raised certain points to note. Having taken these views into consideration, our recommendations are as follows:

(1) Universities

(i) Definition of first degrees

8.4.9 In the past, a holder of a bachelor's degree was generally regarded as a 'learned' person in a particular discipline, with sufficient knowledge and skills to be fully functional in that particular field. However, in today's society where knowledge and skills are being constantly updated, everyone needs to update his knowledge and skills to meet the ever-changing demands. In a life-long learning society, **bachelor's degree programmes are no longer a terminus of learning**. On completion of their bachelor's degree programmes, many students will pursue further studies in different ways according to their learning needs. So, what meaning should a first degree carry and what role should it play today?

8.4.10 In some reformed bachelor's degree programmes, students are no longer required to acquire during the duration of their studies all the knowledge necessary for their future careers. Instead, such programmes put emphasis on helping students grasp basic knowledge and skills, as well as enabling them to seek knowledge and find solutions to problems on their own. Besides, an outstanding professional or executive should also possess good professional conduct, be decisive, adaptive, analytical and able to communicate with people. All these are important attributes that first degree programmes should aim to develop in our students.

8.4.11 To meet the needs of learners in a new society, we recommend that universities review the functions, contents, focuses and modes of teaching of their first degree programmes, so as to **strike the right balance between the breadth and the depth of such programmes**. This would, in addition to helping students

master the necessary knowledge for specific disciplines, give them exposure to other learning areas and help them develop a broader vision as well as important generic skills.

8.4.12 During the EC's consultation, respondents recognized that universities needed to review their first degree programmes to strengthen general education and multi-disciplinary learning, to develop students' thinking and communication skills, adaptivity and creativity as well as to broaden their vision. Respondents were of the view that apart from imparting academic knowledge, first degree programmes should also enhance students' personal qualities and nurture their professional ethics. Some people suggested that undergraduates should be allowed greater flexibility to take modules outside their major disciplines (up to half of the total number of credit units taken). Besides, students should also be provided with opportunities of work attachment. The above views are worth consideration by concerned institutions. The EC also notes that some institutions have already embarked on reform measures in the direction mentioned in the foregoing paragraphs.

8.4.13 In addition, if the 3-year senior secondary education system proposed in Part (C) of Section 3 is to be implemented, universities should consider providing new first degree programmes for graduates of the new senior secondary education system in order to ensure continuity in their studies. To cope with the transition to the new secondary education system, universities will also need to examine if they should provide both the new and the old first degree programmes at the same time for students coming out from two secondary education systems, and what would be the difference between the new and the old first degree programmes?

(ii) The enrichment of campus life

8.4.14 Campus life is an integral part of quality university education. A comprehensive and rich campus life helps students develop strength of character, master life skills, broaden their horizons and cultivate a sense of commitment to the community. We therefore opine that universities should encourage students to take part in a variety of extra-curricular activities such as community services, knowing the country, sports, and arts. Universities should also provide students with more exposure at an international level and let students acquire more practical

experience in the workplace, e.g. student exchange programmes, participation in the university's research work, on-the-job training at local and overseas organizations, starting one's own business, etc. Teacher trainees may take part in voluntary work relating to their profession during holidays. Students could be a valuable human resource to universities, if put to good use.

8.4.15 The most colourful part of university life is usually organized at the initiatives of students themselves, rather than provided by the institutions. Therefore, undergraduates should be given more room to take part in internal and external activities initiated and run by themselves.

8.4.16 During our consultation, the respondents in general supported the recommendations in paragraph 8.4.14 above. Some of them also suggested efforts be made to broaden students' horizons through the provision of more opportunities to join study tours or student exchange programmes.

(iii) Reform of the University Admission System

8.4.17 The system for admission to university does not only select the most suitable candidates for university education, but also exerts great influence on how learning is conducted in schools. It is therefore one of the key focuses in this education reform.

(a) Shortcomings in the Existing System

8.4.18 Many universities around the world devote a lot of time and efforts to making sure that the most suitable candidates are admitted. Comparatively speaking, the admission system in Hong Kong is much simpler. The following problems have been identified in the present system:

- (1) Public examination results are over-emphasized without fully taking into account students' all-round performance;
- (2) Much of the content of and abilities tested in the public examination are outdated and not in keeping with modern day development in higher education; and

- (3) There are very elaborate categorization of programmes in universities in Hong Kong. Stringent requirements are set on the subjects taken by the candidates in secondary schools. In order to secure a university place, secondary school students are not free to choose subjects according to their own preference. This also contributes indirectly to the premature streaming between arts and science education in secondary schools. This is seriously hampering the broadening of learning experiences in secondary schools.

8.4.19 We note that in recent years, local universities have gradually introduced new mechanisms (such as Principals' Recommendation Scheme) to give due regard to students' performance in non-academic fields. Besides, individual departments of some universities have also made significant changes in the admission system. For example, they have broadened the admission criteria to cover students' performance in various aspects, and conducted interviews to evaluate students' communication, analytical, adaptive and social skills. These reforms are worth supporting and should be given due recognition. Measures which are proven to be effective, such as the Principals' Recommendation Scheme, should be widely promoted as soon as possible.

(b) Considerations for the Review of University Admission System

8.4.20 To meet the need for quality university graduates in the new age and to convey to primary and secondary schools the correct message for all-round education, we urge all universities to conduct a comprehensive review of the existing admission system, paying attention to the following:

(1) The changing needs of society

In today's knowledge-based society, we need generalists and specialists who are *good at self-learning, communicative, innovative, adaptive, have good organisational skills and a sense of commitment*. Therefore the admission mechanism should aim to select those candidates who possess

these qualities. Moreover, in view of the importance of generic skills, the admission mechanism should *allow secondary school students to have more room to choose their preferred subjects.*

(2) Maintaining language standards

Universities must maintain their admission requirements in respect of language standards. The current minimum requirements (a pass in both Chinese and English in the Hong Kong Advanced Supplementary Level Examination) should not be relaxed.

(3) Impact on primary and secondary education

When the universities contemplate reforms to their admission system, the impact on primary and secondary education should be given due regard.

(4) The proposed 3-year senior secondary education

If the 3-year senior secondary education system proposed in Part (C) of Section 3 were to be implemented and thus resulting in a reform in the public examination at the end of the senior secondary stage, this will provide a very favourable environment for reforming the university admission system.

Nevertheless, regarding the transition from the ‘2+2’ system to the 3-year structure for senior secondary education, the universities will need to consider the following questions:

- During the transition period, how should universities consider the academic qualifications of S7 graduates of the current system and senior secondary school graduates of the proposed system?
- During and after the transition period, will the total intake of university students be greater than it is now, and will it be necessary to fix a ratio

between graduates of the current system and graduates of the proposed system for admission?

- Will senior secondary school students be encouraged or required to take a broader curriculum (e.g. taking some humanities subjects in the science stream, or some science subjects in the arts stream, or taking liberal studies, etc.)?

(c) Proposed Reforms

8.4.21 We recommend that the universities *give due consideration to students' all-round performance* when setting admission criteria. Apart from public examination results, they may consider the following information in making a comprehensive evaluation of the overall performance of students:

- (1) internal assessment reports of the secondary schools (including academic and non-academic performance);
- (2) portfolios prepared by students; and
- (3) interviews.

8.4.22 During the EC's consultation exercise, the public gave enthusiastic support to the proposed reform of the university admission system and considered it the key to promoting curriculum reform at the primary and secondary levels and fostering whole-person development. However, some people suggested that if students' non-academic performances were to be taken into consideration, the objectivity and transparency of the admission system would be undermined to a certain extent. Some also thought that including extra-curricular activities in the university admission criteria would be unfair to students from the grassroots as not all their parents could afford to pay for their children's extra-curricular activities. We agree that reform of the university admission system must take into account the principle of fairness and its impact on the society. We urge universities to give due regard to the above issues in reforming their admission systems. Moreover, primary and secondary schools should also ensure that every student has a comprehensive and all-round learning experience, including

participation in diversified learning activities both inside and outside the classroom.

8.4.23 Moreover, some people were concerned about the possible discrepancies in the internal assessment standards of different secondary schools. They considered that it would therefore not be fair to consider school-based assessment results for university admission.

8.4.24 The EC considers that in view of the importance of the university admission system, universities should take into account the principles of fairness, impartiality and openness in developing their admission systems. On the one hand, they should ensure that public examination results would not be the only admission criterion, and on the other hand they should give consideration to the impacts of family background on the non-academic aspects.

8.4.25 The EC fully appreciates that to minimize the adverse effect of public examinations, the quality and credibility of school-based assessment will inevitably be a major subject in the education reform. In fact, internal assessments conducted by secondary schools are one of the major admission considerations of universities in many places around the world. We believe that if universities can strengthen communications with secondary schools and accumulate experiences in the admission process, they will be able to know the assessment standards of individual schools better. The CDI will also assist schools in improving their internal assessment mechanisms in the context of the curriculum reform.

8.4.26 As regards the requirements on subjects taken by students in secondary schools, the EC recommends that the universities consider the following reform proposals:

- (1) Giving priority to those students who take the Liberal Studies subject at the Advanced Supplementary (AS) level as this subject can help students broaden their knowledge horizons and develop important generic skills.
- (2) In setting the subject requirements for university admission, replacing as far as possible Advanced

Level subjects with AS level subjects, and minimizing the number of specified subjects, so that secondary school students will have more room to choose subjects across different learning areas.

8.4.27 As the focus and requirements of different universities and departments vary, we urge all universities to reform their admission system(s) and announce the revised admission criteria as soon as possible. We also hope that the UGC will work with universities to find ways to accelerate the pace of reform and provide the necessary assistance and support.

8.4.28 We also propose that universities be given more flexibility to take in students at various levels, such as admitting into their second year meritorious graduates of community colleges and other post-secondary institutions, on condition that the total number of students entering universities each year is not reduced. This will help to enlarge the pool of candidates that universities can consider for admission, and is thus beneficial to the universities' effort to maintain the quality of entrants. We propose that the UGC and the universities should review the current funding mechanism to allow for this flexibility.

8.4.29 On condition that no additional public resources are required, consideration may be given to allowing individual universities and faculties to admit a small number of outstanding S6 students. During the EC's consultation, some people pointed out that the proposal would create confusion and bring about competition among universities for outstanding students. The EC considers it necessary to introduce greater flexibility into the education system (especially in the senior secondary and post-secondary stages) so that students can adjust their pace of learning according to their abilities and individual circumstances. If universities are only allowed to admit a small number of S6 students, the impact on the overall admission system should be minimal. Prior to implementing the proposal, the mechanism to be implemented (e.g. the ceiling on the number of S6 students to be admitted by each faculty) and the impact on all parties should be carefully considered.

(iv) A Flexible and Transferable Credit Unit System

8.4.30 In order to allow more room for students to choose learning modules according to their own interests, ability and needs, we recommend universities to work towards *a flexible and transferable credit unit system among institutions and departments*, so that students' choice will not be confined to programmes offered by one department of a particular institution. Institutions and individual departments would also be able to focus resources on their own strengths with a view to developing their own areas of excellence. If the 3-year senior secondary education system were to be implemented, universities would need to adopt a transferable credit system before admitting the first batch of graduates from the new system.

8.4.31 As for undergraduates, campus life and studying with fellow students will remain essential experiences for their character development. We expect that even when the proposed credit unit system is fully in place and undergraduates have a wider choice of programmes, they will still have to select one institution as the principal base of study.

8.4.32 During the EC's consultation, the public generally supported the proposal for establishing a flexible and transferable credit unit system among institutions and departments as it could widen the students' choice of programmes. Some respondents suggested that upon full implementation of the proposed mechanism, each student should pursue the majority of his/her credits or core subjects in one institution which would also be the one which awards the degree qualification to him/her. Some pointed out that the establishment of this credit unit system should rest on the basic premise that academic standards would not be adversely affected. The Heads of Universities Committee indicated that as various tertiary institutions were currently adopting similar credit unit systems, the basic mechanism for credit transfer already existed. A working group under the Committee has already submitted proposals relating to credit transfer to the universities for their consideration. The UGC will follow up on its progress. A consultant commissioned by the UGC has completed a study on the transferable credit unit system of institutions in other places. The EC is very pleased to note this progress and hopes that the universities will continue to work towards the implementation

of a transferable credit unit system as soon as possible. We also hope that the UGC will work out how its funding mechanism can tie in with the above development.

(v) Duration of Study

8.4.33 During the consultation, the respondents generally considered that extending the duration of study would facilitate students' participation in campus life and would consolidate their foundation. However, the actual duration of study for each programme should be set in accordance with the programme's nature, contents and actual requirements. If the proposed 3-year senior secondary academic structure is to be adopted, students will enter universities one year earlier (normally at the age of 18). This will definitely be one of the key issues in the reform of the university academic structure.

8.4.34 The duration of first degree programmes in different parts of the world is undergoing unprecedented changes. The general trend is to shorten and broaden the first degree programmes, leaving specialized learning to post-graduate study. The EC believes that the local tertiary institutions will certainly consider the reform of its academic structure in the light of the broad direction of such changes.

8.4.35 The universities indicated that if they were to implement 4-year first degree programmes without affecting the total enrolments, their annual expenditure would have to be increased. However, some groups proposed that the universities' high level of expenditure should be reviewed. They believed that once this problem had been thoroughly resolved, 4-year first degree programmes could be implemented without additional funding and resources.

8.4.36 We consider that instead of adopting one uniform duration, the duration of individual first degree programmes should be set in accordance with their actual requirements. As a matter of fact, currently not all first degree programmes are of the same duration of study. We expect that following the implementation of the credit unit system mentioned in paragraph (iv) above, universities will have more flexibility in setting the duration of study of their programmes. Not only will different programmes have different durations, the studying pace and time of each student may also vary.

In fact, the academic structures of universities in different parts of the world have undergone on-going reforms to meet the needs of the changing society. Hence, it is essential for Hong Kong to address the issue on the duration of study in an innovative and flexible manner. Even if the 3-year senior secondary academic structure is to be adopted, the EC considers that the universities should determine the duration of study for their first degree programmes in accordance with the actual circumstances and requirements of each programme without having to standardize all the first degree programmes to four years.

8.4.37 At present, the level of recurrent public expenditure allocated to universities is already rather high. We expect that it will be difficult to make further increases in the near future. We recommend that the UGC and the universities work together to consider whether it is possible to implement 4-year first degree programmes without requiring an increase in recurrent public subsidy or affecting the quality of the programmes. Issues that would need to be explored include how to make more effective use of the existing resources and proactively draw in other community resources. The results of this review will be considered by the EC's working group mentioned in paragraph 8.3.31 in studying the feasibility of the proposed 3-year senior secondary academic structure.

(vi) The quality assurance mechanism

8.4.38 In the consultation conducted by the EC, most respondents agreed that the quality assurance mechanisms of universities should be strengthened. Some people suggested that basic assessments on Chinese, English and Information Technology should be introduced and that undergraduates could decide when to take the assessments. There should be no restrictions on the number of attempts but students would be required to pass the assessments before they could graduate.

8.4.39 At present, self-accrediting mechanism, which includes evaluation by external experts, plays the role of ensuring the quality of university programmes. Since 1997, the UGC has been conducting Teaching and Learning Quality Process Reviews (TLQPR) to help universities enhance the effectiveness of their quality assurance processes. The UGC will proceed with the second round of the review in 2002. We agree that these reviews

are conducive to maintaining the quality of university programmes, and would suggest that the UGC and the institutions concerned consider the following propositions:

- besides reviewing the learning and teaching quality assurance processes, should external assessments be conducted on the effectiveness of learning and teaching (such as the standards of graduates)?
- how might the universities' self-accrediting mechanisms be strengthened?

8.4.40 The main function of university education is to nurture talents in various domains. The community has high expectations that our university graduates will be the pillars of society. Universities need to respond positively to concerns about the standards of university graduates, and to take effective steps to ensure that students graduating from universities measure up to the required standards.

(vii) The development of postgraduate programmes

8.4.41 One of the important economic strategies of Hong Kong is the promotion of innovation and technology. To underpin this strategy, we need to foster experts in various specialised fields and technology areas such as information technology and biotechnology. We recommend that the number of research postgraduate places should be increased to nurture the manpower that we need to strengthen the foundation of Hong Kong's long-term economic development.

8.4.42 Besides, as first degree programmes need to put more emphasis on generic skills and broader learning experiences, taught post-graduate programmes will become more important in terms of nurturing expertise in various domains. We propose to increase the number of taught post-graduate places on a self-financing basis to facilitate in-depth researches in various specialised fields/domains.

8.4.43 During the consultation conducted by the EC, most respondents supported the above proposals.

(viii) Promoting the development of private higher education institutions

8.4.44 It is a common phenomenon in many places for private organizations to participate in the running of universities. In the United States, private universities account for approximately 33% of the total number of universities in the country, while in Japan and Korea, the ratio is 74%. This provides a channel for all sectors of the society to contribute resources and efforts to higher education, as a result of which more students will stand to benefit.

8.4.45 During the consultation conducted by the EC, most respondents supported this proposal but stressed that a quality assurance mechanism would need to be in place. On the other hand, some respondents considered that more universities would result in the lowering of admission requirements, leading to a decline of university students' quality and an excess supply of manpower in the labour market. The EC is of the view that by providing more places in higher education, more students will have the chance to upgrade their standards. In such a way, we can nurture more talents, which will in turn benefit both the students and the community as a whole. Indeed, in proportion to the total population, the number of higher education places in Hong Kong is much lower than that in other places such as the United States, the United Kingdom, Australia. It is therefore necessary for Hong Kong to catch up.

8.4.46 We propose that the Government could adopt the following approaches in promoting the development of private higher education institutions:

- (a) encouraging existing private post-secondary colleges or other education bodies with potentials to upgrade to universities upon appropriate accreditation. We note that the Shue Yan College, with the assistance of the Government, has commissioned the Hong Kong Council for Academic Accreditation to conduct accreditation for some of its proposed degree programmes. This is a step forward in the development of private universities;
- (b) providing a conducive environment for the development of private higher education institutions, such as encouraging distinguished overseas universities to set up private universities in Hong Kong.

8.4.47 We recommend that the Government should actively consider the formulation of appropriate policies with a view to encouraging the development of private higher education institutions, so that the higher education system of Hong Kong can be more diversified and vigorous. In formulating such policies, the Government will need to consider the following issues :

- (a) what should be the definition of ‘private universities’?
- (b) how to ensure the quality of the programmes provided by private universities ?
- (c) what should be the procedures for establishing a private university in Hong Kong? Is it necessary to legislate for it?
- (d) how should private universities position themselves? How should they be differentiated from the Open University of Hong Kong?
- (e) in view of the fact that, discounting the 18% borne by students, the costs of Hong Kong’s universities are fully paid by the Government, is there any room for private universities to survive here? What assistance should be provided by the Government?

(2) The Concept of “Community Colleges”

(i) Definition

8.4.48 “Community Colleges” is a concept which refers to those education institutions that perform one or more of the following functions:

- (a) providing learners with an alternative route to higher education which, to a certain extent, articulates with university programmes;
- (b) providing a second opportunity to learners who have yet to attain qualifications at secondary level through formal education; and

- (c) providing a variety of learning opportunities to assist individual learners to acquire skills and qualifications to enhance their employability.

8.4.49 In selecting courses, students should take into account their quality (e.g. whether they are appropriately accredited) and their recognition by the organizations concerned (e.g. universities or employers). The course providers should also disclose the above information to the applicants.

8.4.50 During the EC's consultation, the public generally shared the view that we should encourage the setting up of more institutions which adopt the mode of "community colleges".

(ii) Operational Principles

8.4.51 "Community colleges" should operate along the following principles:

- (a) ***Lenient entry, stringent exit*** : In comparison with universities, the entry requirements of "community colleges" should be relatively more lenient. This will enable more people to fulfil their aspiration for higher education programmes that suit their abilities. At the same time, "community colleges" should have a sound quality assurance mechanism to ensure that their graduates meet the required standards. This will help secure recognition from employers, professional bodies and universities for their qualifications.
- (b) ***Flexible mode of learning*** : The mode of learning in "community colleges" should be as flexible as possible (such as in the form of lectures, group discussions, group projects, on-line learning and correspondence courses) to suit students' individual circumstances and needs.
- (c) ***Flexible course duration*** : "Community colleges" should adopt a flexible mechanism (for example, a credit unit system) which allows students of different abilities and circumstances to learn at their own pace.

- (d) ***Diversified sources of subsidies*** : The funding for “community colleges” could come from various sources, such as the private sector, charitable education funds, non-profit-making organizations or collection of school fees. This will allow a wider spectrum of the society to contribute to education in Hong Kong. During the EC’s consultation, the majority of the respondents shared the view that “community colleges” should obtain their funding through various channels so that the development of the “community colleges” system can be expedited and more flexible.

(iii) Promoting the Development of Community Colleges

8.4.52 We encourage the following sectors/institutions to take an active part in promoting the development of “community colleges” so as to provide diversified opportunities for learners to pursue higher education:

- (a) The Government : may formulate relevant policies to provide a conducive environment for the development of “community colleges”. The Government may facilitate the establishment of a mechanism for articulation of qualifications and quality assurance. We note that the Government has recently further expanded the Non-means Tested Loan Scheme to cover professional and educational courses offered in Hong Kong by registered schools, non-local tertiary institutions, professional organizations and recognized training institutions so that people aspire to higher education will not be deprived of such a chance due to lack of means. The Government may also consider providing subsidy to those students with financial difficulties as well as offering start-up assistance (e.g. in procuring premises) to institutions operating in the form of “community colleges”.

- (b) The Universities : to consider giving proper recognition to qualifications conferred by “community colleges”, admitting high achievers from these colleges as well as granting partial course exemption as appropriate.
- (c) Post-secondary colleges and institutions : may consider providing courses modeled on those offered by “community colleges”.
- (d) Other sectors / institutions : are encouraged to support and promote in various ways the development of “community colleges”.

(3) Continuing Education

8.4.53 We will discuss in more detail in Section 5 the future development of continuing education (including post-secondary studies) in Hong Kong.

Setting up of a Working Group

8.4.54 The proposals concerning university admission, a transferable credit unit system and the duration of first degree programmes will be further examined and implemented by the UGC and the concerned institutions. We propose to form a working group under the EC to follow up on ways to enhance the interface between universities and other post-secondary institutions (such as “community colleges” and continuing education institutions), study in detail the implementation problems and formulate specific proposals. The Working Group should comprise representatives from the Education and Manpower Bureau, the EC, the UGC, the VTC and the institutions concerned.

Section 5: Continuing Education

8.5.1 As mentioned in earlier chapters, in a knowledge-based society, the demand for continuing education is much higher than before.

8.5.2 Continuing education performs multiple functions:

- (1) It gives full play to one's potentials and enhances the quality of the individual.
- (2) It enables learners to acquire up-to-date knowledge and skills to stay competitive in the rapidly changing and increasingly globalized economy.
- (3) It allows learners to acquire qualifications in academic, professional or vocational training, which meet their personal aspirations and occupational needs.

Current position

8.5.3 Continuing education has been developing rapidly in the past few years. Institutions providing continuing education have been expanding both in number and in size. As indicated in a survey conducted by the Government last year, a total of more than 12 000 continuing education courses were offered by various institutions between June last year and May this year, and more than 550 000 students were enrolled. As the development of continuing education is mainly market-oriented, its mode of operation is flexible and diversified; the design of the courses is mainly oriented towards learners' demands; and the courses offered are wide-ranging, covering academic, professional and vocational domains as well as personal development. This aptly reflects the variety of the community's needs for continuing education.

8.5.4 These developments are encouraging. It is envisaged that continuing education will play an increasingly important role in the overall framework of life-long learning in future.

Proposed directions for future development

8.5.5 During the EC's consultation, the public in general supported promoting the development of continuing education, providing a favourable learning environment and encouraging every one to pursue life-long learning.

Some people also put forward concrete suggestions on ways to promote continuing education. Having considered their views, we propose that building on its present strengths, continuing education should further develop in the following directions:

(1) **Flexibility and openness**

8.5.6 Flexibility and diversification should remain the guiding principles for the development of continuing education. To cater for the needs of the community for life-long learning, the contents and mode of continuing education should be adjusted to align with changes in the society and students' aspirations.

(2) **Mechanism for quality assurance, accreditation and transfer of qualifications**

8.5.7 As mentioned before, quality assurance and accreditation are inter-related. To enable students to choose the modes of learning that best suit their individual interests, abilities and aspirations, and to accord due recognition to the qualifications attained through different channels and modes of study, we propose to establish a comprehensive mechanism whereby qualifications are mutually recognised and transferable among various continuing education / formal education / professional / vocational training programmes.

8.5.8 Such a qualifications framework should include the following features:

(i) **Quality assurance**

A sound mechanism for qualifications accreditation should be put in place (e.g. accrediting the standards of various programmes by recognised accrediting agencies).

(ii) **Openness and diversification**

There should be multiple points of entry and exit on the qualifications ladder.

(iii) **Portability**

For those who are unable to complete a programme at one go, a certain qualification commensurate with the modules completed should be awarded, and such qualifications should be duly recognised when the learners resume their studies in future.

(iv) **Flexibility and transferability**

The qualifications acquired through various channels should be transferable so that students may shift to another mode of learning geared to their own needs.

(v) **Focus on learning outcome**

The credits accumulated from different modes of learning (including working experience or other experiences in life) should count as well.

(3) **Continuing professional development in the workplace**

8.5.9 The workplace is an ideal venue for continuous professional development. In some countries, this concept has given rise to a new form of continuing education, “work-oriented learning programme” organized jointly by employers and providers of continuing education. This is an area worthy of exploration by the local continuing education community.

(4) **The internationalization of continuing education**

8.5.10 The present momentum of internationalization should be sustained. There should be more co-operation with overseas tertiary institutions in offering specialized programmes that are unavailable in Hong Kong and to draw on their experiences and expertise.

(5) **The use of information technology**

8.5.11 The rapid development of the Internet and on-line learning poses major challenges to continuing education worldwide. Local providers of continuing education should harness the power of the new technology to further promote lifelong learning. In addition, continuing education will play an increasingly important role in equipping learners with up-to-date knowledge in information

technology. During the EC's consultation, some people called for paying attention to problems arising from the information era and strengthening value education for young people.

(6) **Resources**

8.5.12 Continuing education should be funded on the 'user-pays' principle, as it helps to develop one's potentials and enhance one's personal qualities. However, the entire community is obliged to promote continuing education. We therefore look to people of various sectors, such as employers, professional bodies and social bodies to contribute manpower and resources. Where resources permit, the Government should consider providing assistance to those learners with neither the financial means nor the abilities to pursue continuing learning and find employment, including those who have become unemployable due to the economic restructuring (such as by providing re-training opportunities) to enhance their learning abilities and employability. We consider this to be very important in maintaining a stable and harmonious society. During the EC's consultation, respondents in general considered the above principles agreeable.

8.5.13 Apart from the above directions, some people suggested looking into the following questions :

- (1) should continuing education be regulated and how?
- (2) Teachers' qualifications in continuing education;
- (3) how to facilitate the effective use of community resources (including facilities and manpower) to promote continuing education?
- (4) how to use information technology and the mass media to promote continuing education?
- (5) how to assist the elderly, women, those who have suspended their studies at S3 level or below, new arrivals and those with special educational needs to pursue continuing learning?
- (6) how to encourage the working people to pursue further studies to enhance their knowledge and abilities, thus promoting their personal development?

8.5.14 We consider the above questions worth studying and recommend the working group to be set up by the EC to look into them in the course of studying the policies and measures to promote continuing education.

Community-wide Efforts in Promoting Continuing Education

8.5.15 We recommend that different sectors of the community assume the following roles in promoting continuing education:

The Government

- To provide an environment that is conducive to the development of continuing education and to co-ordinate the efforts of all interested parties (e.g. providers of continuing education, accreditation authorities, professional bodies, employers, etc.). The Government has taken the first step to encourage various providers of vocational training to join hands in developing a ladder of transferable qualifications. We hope that the Government will continue its effort towards the establishment of a more comprehensive qualifications framework in collaboration with the sectors concerned.
- To encourage continuing learning by offering incentives (e.g. non-means-tested low-interest loans, tax concessions, etc.).
- To facilitate the under-privileged (e.g. learners with a low education level and having financial difficulties) in pursuing continuing learning to help them improve their quality of life.
- To set a good example by encouraging and facilitating its staff in pursuing continuing learning.

Employers

- To encourage the employees to pursue continuing learning by providing learning/training (including in-house training) opportunities, granting leave and financial assistance as appropriate.
- To collaborate with providers of continuing education/professional bodies and to exchange training materials.

Providers of continuing education

- To provide the community with quality and practical programmes of continuing education.
- In collaboration with the Government, employers, professional bodies and the industries, to help various industries understand their training needs and gain access to the latest information on the labour market, and to assist the small and outmoded industries update themselves.

Voluntary/community organizations

- To provide the grassroots with information and counselling services on continuing education through an extensive community network.
- To offer diverse programmes and activities in the community to cultivate people's interest in learning.

Accreditation authorities

- To consider, with other interested parties including providers of continuing education, the Government, employers and professional bodies, how to set up a flexible mechanism for the evaluation, accreditation and transfer of academic qualifications, in order to enhance the portability and transferability of continuing education programmes of different types and levels.

Professional organizations

- To encourage members to pursue further studies and provide opportunities for continuing learning.
- To put in place a working experience accreditation mechanism allowing learners with relevant working experience to apply for exemption of some professional courses.
- To work with other relevant sectors to establish a qualifications accreditation and recognition mechanism.

Mass media

- To help promote the concept of lifelong learning.
- To provide the public with the latest information on continuing education and to facilitate the provision of diversified learning channels (such as setting up an education television station and network services on education, etc.).

Specific Recommendations

(1) Setting up a working group on continuing education

8.5.16 In the context of this review, we have set out the proposed broad directions for the future development of continuing education. The next step will be to set up a working group to advise the Government on the policies and specific initiatives on continuing education (e.g. bringing various sectors together to establish a comprehensive mechanism for accreditation of academic qualifications).

(2) Establishing a database for continuing education

8.5.17 We note that the Government has recently completed a survey on continuing education courses offered in Hong Kong and launched a website to provide learners with a convenient channel to search for information on continuing education courses. We fully support this initiative and propose further promoting the use of this website through all relevant Government departments (e.g. Labour Department, Careers and Guidance Services Section of Education Department, etc.) and relevant organizations (e.g. youth centres, voluntary organizations, etc.) to assist those who are looking for suitable courses.

(3) Establishing lifelong learning centres

8.5.18 We recommend that continuing education institutions or community service organizations should make use of the existing community resources (including community centres) to set up lifelong learning centres that embrace teaching facilities, libraries, information technology equipment, study rooms and advisory services. We recommend that educational institutions /public organizations (e.g.

schools, community halls, tertiary institutions, language education institutions, etc.) should consider allowing continuing education providers and learners to use their classrooms, lecture rooms and libraries on a cost-recovery basis.

(4) Working out supporting measures for continuing education

8.5.19 We are aware that the Government has further extended the scope of the Non-Means-Tested Loan Scheme to cover professional and educational courses offered in Hong Kong by registered schools, non-local tertiary institutions, professional organizations and recognized training institutions. This will help those who wish to pursue continuing learning but lack the means to do so. We support this initiative and recommend that the proposed working group as mentioned in paragraph (1) above to work out other measures to help learners pursue continuing learning.

Chapter 9 : Implementation Strategy

9.1 The education reform is an enormous and complex exercise and requires an appropriate implementation strategy. We propose the following strategy to ensure the smooth implementation of the reform measures.

Setting priorities

9.2 We propose to prioritise the reform measures on the basis of the following considerations:

- (1) The urgency and seriousness of the problem that the reform measure aims to tackle;
- (2) The reform measure's impact on promoting the quality of education, all-round development and lifelong learning;
- (3) Whether the essential pre-conditions are in place;
- (4) Whether the proposed sequence of implementation is logical.

9.3 On the basis of the above considerations, we propose that the following should be the priority items of reform –

- Reform of the secondary school places allocation mechanism;
- Reform of the primary one admission mechanism;
- Reform of the university admission system;
- Reform of the primary and secondary school curricula;
- Improvement of the existing public examinations;
- Implementing the Basic Competency Assessments to ensure basic standards and to nurture excellence;
- Enhancing the quality of early childhood education;
- Enhancing the professional competence of principals and teachers;
- Increasing post-secondary learning opportunities.

Implementing changes incrementally

9.4 We propose that those reform measures which involve more radical changes (such as the reform of the SSPA) should be implemented by phases. This would enable all parties concerned to better adjust to the changes and, during the transitional period, it would be possible to promptly rectify any problems detected.

Conducting trials in key areas

9.5 For those reform measures that require a longer period of time to develop and have a wide coverage (such as the curriculum reform), we propose to conduct pilot schemes in schools which are more ready, and then promote the successful experiences to other schools.

Undertaking continuous monitoring and interim reviews

9.6 The Education and Manpower Bureau (EMB) will undertake to implement the education reform and will report progress to the EC on a regular basis. We shall conduct interim reviews after each stage and make proper adjustment where necessary. The public will be consulted if major changes to the original plans are required.

Ensuring overall coordination

9.7 For better coordination, EMB will set up a liaison team comprised of experienced educators to take charge of coordination and communication with different sectors of the community for the smooth and effective implementation of various reforms. It will also collect feedback when the reforms are implemented and report them to the Government for appropriate follow-up as soon as possible.

9.8 EMB and the EC will continue to coordinate the work of the major education advisory bodies and relevant government departments to ensure that various education policies and measures are in line with the education reform.

9.9 During the consultation period, many respondents expressed support for a gradual approach to the education reform and proposed appropriate supportive measures, including support to schools and teachers. Some were of the view that interaction with frontline educators should be strengthened so that they could participate in the formulation, testing and implementation of the new curricula. We strongly support these views, but notwithstanding the importance of supportive measures, the participation of various sectors of our society, particularly the active involvement of frontline educators, are of utmost importance.

Chapter 10 : Resource Strategy

10.1 Education can help each individual enhance his or her personal qualities, and contributes to society's progress and prosperity; the success of the education reform will benefit each and every individual in society. Education should be regarded as an investment rather than expenditure. To implement the reform, extra resources will be required. If the resources are put to effective use, our investment in education will bring us enormous returns which will far exceed the costs incurred.

10.2 The successful implementation of the education reform calls for an appropriate resource strategy to enable various key reform measures to roll out as soon as possible and to ensure that the resources allocated for education can achieve the maximum effect.

Resources currently devoted to education

10.3. The Government has all along attached great importance to education and made substantial commitment in terms of resources. Education is now the single largest item of public expenditure. It takes up over one-fifth of the Government's total recurrent expenditure, amounting to \$45 billion or equivalent to 4% of Hong Kong's Gross Domestic Product. In comparison, the proportion of private contribution to education is less than 10% of the total expenditure on education. This is smaller than that in many other places. The proportion in Germany and Australia, for instance, is 22%⁽¹⁾ and 18%⁽²⁾ respectively.

10.4 At present, the proportion of public resources devoted to various stages of education is as follows:

Early childhood and primary education	22.9%
Secondary education	33.3%
Post-secondary education	34.7%
Others	9.1%

⁽¹⁾1995 data

⁽²⁾1995 data

Source: Education at a Glance OECD Indicators 1998

10.5 To support the education reform, the Government has earmarked \$800 million in the 2000/01 Draft Estimates to enable the early implementation of a number of priority items. Apart from the education reform, the Government will continue with other education initiatives which will incur substantial additional resources (such as whole-day primary schooling, the application of IT in education, and increasing the number of teachers who are professionally trained and degree-holders). A total of 1,640 graduate teacher posts will be created in 2000/01 and 2001/02 school year at a recurrent expenditure of \$500 million, so that by 2001/02 school year, 35% of all primary teaching posts will be graduate posts. Besides, 100 IT Co-ordinator posts will be created in 2000/01 and more than 300 teaching posts will be provided in the coming two years for promoting the application of IT in education, co-ordinating school library services, and implementing the Chinese and English Extensive Reading Schemes. These measures will incur an additional recurrent expenditure of \$130 million. From 2000/01 to 2002/03 school year, the Government will also build 54 primary schools to attain the target of allowing 60% primary students to study in whole-day primary schools by September in 2002. This will incur \$5.3 billion capital expenditure and \$570 million recurrent expenditure respectively.

10.6 In view of the high proportion of public expenditure currently devoted to education and the implementation of the committed new initiatives which will also require a considerable additional resources, we need a proper strategy to make effective use of public resources and other resources in the community. To realize the education reform, all sectors of society, in particular the learners themselves, must be prepared to make greater contributions.

Proposed resource strategy

(1) Principles

10.7 We propose to adopt the following principles in setting the resource strategy:

(i) Concerted efforts of the whole community

10.8 The fruits of education benefit everyone in society, particularly the learners themselves. Education is not only the whole society's joint investment, but also an investment for the learners themselves. Both society and

the individual should make a contribution to the education reform.

(ii) According priority to basic education

10.9 It is the Government's obligation to help all children of the right age attain a certain education level, so as to prepare them for future work, study and life. Early childhood and primary education are a key stage where the foundation for lifelong learning is laid. When considering the allocation of any additional resources, priority should be given to early childhood and primary education (e.g. in such areas as providing training and professional support for teachers and principals of pre-school institutions and primary schools, reducing the workload of primary school teachers, reforming the school curriculum and improving the learning assessment mechanisms, etc.).

10.10 The public resources now devoted to higher education already make up about one-third of the total resources allocated to education. The recurrent subsidy to universities is not expected to increase in the short-term. We would encourage the tertiary institutions to make more effective and flexible use of their existing resources, and to seek resources from other channels. In fact, the private sector is a significant source of funding for universities in many other parts of the world.

10.11 We are aware that the Government has further expanded the Non-Means Tested Loan Scheme to cover courses offered in Hong Kong by registered schools, non-local tertiary institutions, professional organizations and recognized training institutions. This will help those who wish to pursue continuing learning but lack the means to do so. The Government may also consider providing low interest loan to learners who have financial difficulties.

(iii) Focusing on effective learning and teaching

10.12 Any additional public resources should be devoted to those reform measures which directly enhance the effectiveness of learning and teaching (such as professional support for schools, measures to raise

teachers' and principals' professional competence, and measures to ensure students' basic standards and to promote excellence).

(2) Reform measures that require additional resources

10.13 Among those measures proposed to be launched in the next three years, the following will require additional resources:

<u>Education stage</u>	<u>Reform/supporting measures</u>
Early childhood education	<ul style="list-style-type: none"> • to provide training for in-service KG principals and CCC supervisors • to increase students' fee remission as a result of raising the entry requirement of KG teachers • to provide training for KG teachers • to improve the teacher-to-pupil ratio for KG
Primary and secondary education	<ul style="list-style-type: none"> • to provide training for teachers • to provide professional support for schools • to reduce the workload of teachers • to set up Basic Competency Assessments for Chinese, English and Mathematics • to reform the curriculum • to strengthen remedial and enhancement measures

(3) Proposed resource strategy

10.14 We propose the following resource strategy for implementing the education reform:

(i) Effective utilization of existing resources

- The substantial public resources currently devoted to education should be put to more effective use. Existing activities should be better integrated, and any savings thus achieved would be used to implement the reform items. There is a need to achieve better division of work within schools and to streamline work processes.

- The Quality Education Fund should be used effectively to provide non-recurrent funding for the reform.

(ii) Making better use of other resources

- Many other organizations (including youth service organizations, uniformed groups, sports organizations, cultural and arts groups, professional bodies, voluntary groups) are most willing to provide support for education. In fact, a lot of them are already organizing various types of learning activities for students such as training camps, workshops and seminars, which are designed to enhance students' leadership, self-control, communication skills, as well as their sporting and artistic skill. Such activities also cultivate students' moral values and civic-mindedness. We encourage schools to make effective use of the resources provided by these sectors.
- Many people/organizations in the business sector are also highly supportive of education. Apart from providing students with work-related learning experiences (such as arranging visitations and workplace attachments), they should be prepared to make financial contributions to education. Schools and other education bodies should make the best use of such contributions.
- Schools should make better use of various public and community facilities, such as libraries, museums, cultural and arts facilities and various learning resources centres, to raise the effectiveness of learning and teaching.
- Parents play a very important role in supporting education. There should be a partnership between schools and parents, as the latter can provide support in the form of human and financial resources, to enable students to have all-round and diverse learning experiences, as well as appropriate guidance and assistance. In fact, many parents nowadays are spending a lot of money on their children, paying for extra activities, like private tuition, dance and music classes, and for examination exercise books etc. If some of these resources could be channeled to the school system, it would greatly benefit the all-round development of their own children. We should

therefore provide channels for parents to make contributions. In many other parts of the world, the proportion of education spending shouldered by parents and learners themselves is much higher than that in Hong Kong. We propose that, in respect of post-secondary education, consideration be given to appropriately adjusting the proportion of tuition fees to the total cost of education.

- We should encourage more private participation in running schools. We should also promote the development of private universities, community colleges, private schools and the Direct Subsidy Scheme schools so as to provide more channels for different sectors of the community to contribute towards education.

(iii) Increase in the resources allocated to education

- At present, public resources allocated to education is equivalent to about 4% of Hong Kong's Gross Domestic Product. As education has profound influence on the future of Hong Kong, improvement in the quality of education will benefit the whole society. We therefore encourage the Government to increase its resource input on education.

10.15 During the consultation period, many sectors of the community expressed support for education and a large number of private organizations regarded providing assistance to the education reforms and fostering quality enhancement of education as a civic duty of the corporate sector. We feel much encouraged by the indication from some parents that they were willingness to build up a partnership with schools and make contributions to the education of their children. Meanwhile, some respondents also suggested that the Government should set out an education budget that spanned over several years while maintaining the flexibility to increase expenditures as necessary.

10.16 There was also a proposal to allocate resources to reduce class size and raise the teacher-to-student ratio so as to lighten teachers' workload and to enable them to raise the effectiveness of learning and teaching. We have the following views in this respect:

- Effectiveness of learning and teaching can be affected by many factors, including the learning and teaching culture of the school, the curricula, the frequency of tests and examinations, the arrangement of teaching work and whether there is an adequate supporting staff, etc. We understand that a number of schools have adopted a flexible curriculum by combining periods, prolonging the duration of each period or reducing the number of periods. Such an approach will not only raise the effectiveness of learning and teaching, but can also save the time spent by teachers on preparation. Eliminating excessive examinations and tests can also give students more room to learn and serve the dual purposes of reducing the time teachers spend on marking papers and alleviating their workload.
- The general teacher-to-student ratios in Hong Kong are 1:22 and 1:19 for primary and secondary schools respectively. These ratios compare favourably with our neighbours [such as: Singapore (primary schools: 1:25; secondary schools: 1:20)⁽³⁾, South Korea (primary schools: 1:27; secondary schools: 1:21)]⁽³⁾. It is evident that we cannot simply equate the teacher-to-student ratio with the quality of education. Besides, the number of students in each class does not only depend on the number of teaching staff, but also the physical conditions of schools. A large number of school premises would have to be erected if we were to significantly reduce the number of students in each class. Such a proposition will face great practical difficulties under present circumstances in Hong Kong.
- We understand that the Government has earmarked \$800 million of recurrent funds for the education reform, of which \$500 million will be allocated to primary and secondary schools to employ extra staff or hire services to alleviate the workload of teachers. Teachers will therefore have more capacity to concentrate on raising the effectiveness of learning and teaching, improving the school curriculum and students' language standards and to cater for their diversified needs. We urge schools to try out various flexible ways to make good use of these resources, such as employing more executive staff to share teachers' non-teaching tasks.

⁽³⁾ 1998 data.

Source: A Comparison of the Economic and Social Situation of the Hong Kong Special Administrative Region with Eleven Selected Economies, 2000 Edition, Census & Statistics Dept, Hong Kong

- Principals may also re-arrange the teaching and non-teaching tasks, streamline work processes and do away with unnecessary tasks so that teachers' workload will be reduced.

Chapter 11 : Support of other Stakeholders

11.1 Education reform is a huge exercise which has far-reaching effects on the society. It is generally expected that the reform will bring about real improvement in education and will raise the quality of all students. However, the participation of the Government and certain sectors of the community is insufficient. To fulfil the vision of the education reform, we need to have the active support and cooperation of the entire community.

Frontline Educators

11.2 Frontline educators (including school heads and teachers) are the key protagonists in the education reform. It is a principal objective of the education reform to give teachers more flexibility and autonomy in exercising their professionalism.

(i) The changing roles of school heads and teachers

11.3 Students' learning needs are changing along with the changes in the society. Nowadays, everyone needs to be able to construct knowledge on his or her own as well as to grasp new concepts and technology promptly. Under these new circumstances, we need to be more cultivated and committed to the society to face ever-emerging challenges and lead a quality life and help Hong Kong develop into a cosmopolitan city with style and luster. Against this background, school heads and teachers are facing the following changes in their roles:

- From someone who transmits knowledge to someone who inspires students to construct knowledge
- From someone who implements the curriculum to someone who participates in the development of school-based curriculum
- From someone who executes policies to someone who leads and contributes to the reform

(ii) Professional development of school heads and teachers

11.4 To meet the changes in the roles mentioned above, school heads and teachers need to:

- be more proactive and pursue lifelong learning
- enhance their professional competence
- have a stronger sense of commitment

School sponsoring bodies

11.5 School sponsoring bodies (SSB) have made enormous contributions to education in Hong Kong. Looking forward, SSBs will play a more important role in fostering a diversified school system and all-round development of students. With the ED further decentralizing its authority to schools, SSBs will shoulder an even greater responsibility to lead schools under their purview to develop their own characteristics having regard to their philosophy, and to use public money appropriately. SSBs should therefore brush up their management skills and increase the participation of other stakeholders in the School Management Committees. In addition, for the sake of students' all-round development, schools should provide students with more diverse and life-wide learning experiences, the achievement of which requires more active support and participation from members of the community. If SSBs could provide greater support and resources to schools in this respect, the education reform would be able to achieve more striking results.

Students

11.6 As masters of their own learning, students should make the best use of every opportunity to learn. They should take the initiative to think, question, communicate, collaborate, participate, experiment and explore so as to construct knowledge, develop multiple abilities and enhance their personal quality, thereby laying a sound foundation for life, work and lifelong learning.

Parents

11.7 Parents are the closest and the most reliable mentors to students. Parents' viewpoints and guidance have a great impact on students' learning attitudes and effectiveness. They can help students learn effectively in the following ways:

- (i) according due emphasis to the concept of lifelong learning and all-round development and helping students cultivate this concept and interests in learning by words and deeds;
- (ii) maintaining close communication and cooperation with schools to understand students' learning needs and their social life, and provide proper guidance to students at home;
- (iii) participating actively in school-based management;
- (iv) providing schools with manpower and financial support so as to reduce teachers' workload and help schools develop an environment conducive to all-round education.

Government

11.8 To ensure the implementation of education reform, the Government is taking various supportive measures, including:

- (i) to promote the professional development of teachers and enhance their professionalism, sense of commitment and enthusiasm by:
 - providing proper training opportunities (including on-line courses);
 - setting up databases for teaching resources;
 - liaising with teacher education providers for the provision of courses aligned with the reform;
 - promoting teacher exchange programmes in different districts;
 - establishing a professional ladder for teachers;
 - preparing the formation of a General Teaching Council;
 - requesting public sector schools to put in place a

performance management system for teachers before the end of the 2001/02 school year;

- integrating the manpower and other resources of the ED to provide professional support to schools and teachers and to assist in reducing teachers' workload.

(ii) to enhance school heads' abilities and initiatives in leading the reforms in schools by:

- providing adequate training opportunities;
- promoting the formation of exchange networks among school heads.

(iii) to promote the need to provide remedial and enhancement support to students and measures for coping with students of diverse abilities

(iv) to foster parent education and home-school cooperation by:

- strengthening the role of the home-school cooperation committees in the promotion of parent education and cooperation between parents and schools;
- promoting the development of district centres for parent education;
- strengthening the support to parents through nurseries and health centres, giving parents more information on early childhood education and holding seminars and group discussion to help them understand the development and needs of their children;
- encouraging parents' participation in school-based management;
- setting an example for other organizations by encouraging and facilitating employees to take part in activities like Parents' Day, Open Day and Parent Teacher Associations, etc.

(v) to co-ordinate the efforts of various sectors to develop supportive networks for education

(vi) to accelerate school improvement works, in particular for those schools where the facilities are below basic standards.

Education advisory bodies

11.9 Advisory groups responsible for advising the Government on different aspects of education should keep close contact with one another to ensure that education policies and measures in various domains (such as language, use of information technology in education and professional development of teachers) are in line with the direction of the education reform.

Teacher education providers

11.10 In their mission to train future teachers, teacher education providers should:

- (i) continuously update the content of their programmes and enhance their relevance so that principals and teachers can acquire the knowledge and skills to implement the education reform;
- (ii) participate in the design and development of curriculum;
- (iii) conduct research on new pedagogical methods and carry out pilot schemes on key curriculum reform items in collaboration with the CDI and pilot schools.

Quality Education Fund

11.11 The Quality Education Fund should continue to assist in the education reform in the following ways:

- (i) encourage schools and other applicants to submit proposals conducive to the promotion and implementation of the reform;
- (ii) assist in promoting the cooperation among primary and secondary schools, universities, teacher education providers and other social services organizations. Their successful experience will provide important practical reference to the education reform;
- (iii) provide financial support to teacher-led school-based projects which will foster exchange of experiences and boost the professional competence and confidence of teachers.

Other sectors

11.12 Other sectors of the society are also expected to make contributions to lifelong learning and to support education:

- (i) Youth service groups, uniformed groups, culture and art organizations, sports groups and professional organizations can offer manpower and financial support to provide students with more diversified and interesting learning experiences. Such experiences will help students develop their personality, master life skills, broaden their perspective, enhance their personal qualities and cultivate a sense of commitment to society;
- (ii) Apart from providing students with job-related experiences (e.g. visitations and workplace attachments), private/commercial firms are encouraged to provide financial, technical and other support to education, and to facilitate their staff to take part in home-school co-operation and parent education activities;
- (iii) We encourage the community to contribute to education through participating in running schools and promoting the development of private universities, community colleges, private schools and Direct Subsidy Scheme schools.

Chapter 12 : Concluding Remarks

12.1 The education reform is not only concerned about the here and now, but also our long-term future. There is an urgent need for reform as our society transforms itself. The enthusiastic participation of various sectors of our community during the consultation period has given us hope for success. It is now time for action. We sincerely hope that all members of our society will commit themselves to the education reform.

12.2 We propose that the Government should formulate detailed indicators to assess the effectiveness of the education reform at an appropriate time after the reform measures have been put into practice. The information collected will be useful reference for the interim reviews.

**Membership of the Education Commission and its Working Groups/Sub-groups
Having Participated in the Review of Education System**

The Education Commission

Chairman:	The Hon Antony LEUNG Kam-chung, GBS, JP
Vice	Mr Joseph WONG Wing-ping, GBS, JP (until July 2000)
Chairman:	Mrs Fanny LAW FAN Chiu-fun, JP (from July 2000)
Members:	Professor CHENG Kai-ming, SBS, JP
	Mr Moses CHENG Mo-chi, JP
	Mr Matthew CHEUNG Kin-chung, JP (from June 2000)
	Mr CHEUNG Man-kwong
	Mrs Judy CHUA TIONG Hong-sieng, BBS, JP
	Professor CHUNG Yue-ping (from July 1998)
	Professor Ruth HAYHOE (from July 1998)
	Mr Irving KOO Yee-yin, SBS, JP
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	Mr TAI Hay-lap, BBS, JP
	Mr Michael TIEN Puk-sun, BBS, JP
	Mr TSO Kai-lok, MH (from July 1998)
	Ms Harlanna YEUNG Chui-chun (from July 1998)
	Mr YEUNG Kai-yin, JP
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	Dr Edgar CHENG Wai-kin, JP (until January 1999)
	Ms Sansan CHING Teh-chi (until June 1998)
	Mrs Fanny LAW FAN Chiu-fun, JP (until May 2000)
	Mr Peter LEE Ting-chang, JP (until June 1998)
	Mr MAK Kwai-po (until June 1998)
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Working Group on Early Childhood and Basic Education

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Mr Andrew MA Yat-bong
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Key Tasks in the Curriculum Reform

(1) Moral and civic education

1. Moral and civic education plays a very important part in the whole-person development of students. It covers a range of issues, including ethics, healthy living, sustainable development (such as environmental protection), and identification with and commitment to the country and the community.

2. The most important and effective channel for cultivating students' positive values is through providing them with the appropriate learning environment and experiences. Learning from life experience, students will gradually establish their own values. In this process, the influences of the social, the school and the family environments on students are crucial. It is always more efficacious for teachers and parents to teach by setting good examples themselves.

3. In providing learning experiences in moral and civic education, the provision of diversified life experiences is more effective than sermonizing. Schools should conduct various forms of learning activities inside and outside the classroom with a view to integrating moral and civic education in various key learning areas and to provide students with a comprehensive life experience including social services, extra-curricular activities and visits to places of educational value in Hong Kong and in the Mainland. Schools may also collaborate with different service organizations, such as uniform groups, youth service organizations and cultural bodies to organize life-wide learning activities which are conducive to developing students' positive values and attitudes such as civic-mindedness and commitment to the country and the community.

4. On promoting moral and civic education, the Government should play a supporting role. Apart from providing resource support, the Government should gather and disseminate successful experiences in providing moral and civic education systematically among schools through different effective channels (such as the Internet and production of videos). The Government should also promote and facilitate co-operation among different organizations in the community in establishing support networks for education and should provide relevant information for schools to design learning activities on moral and civic education which suit the needs of students. School ethos and family education are of utmost importance in cultivating students' moral values.

(2) Promoting a reading culture

5. An interest in learning is the prime driving force for life-long learning. An effective way to cultivate this attitude is through reading. We urge schools to actively promote a culture of reading, making references to the following points :

- (a) the key to promoting an interest in reading is the provision of a conducive environment. Students should be encouraged to make better use of the resources in the school libraries and public libraries as well as the mass media (including the Internet), to read extensively according to their own interests;
- (b) to provide appropriate guidance to students, on ways to search for reading materials, on reading methods and on how to analyse and construct knowledge from reading;
- (c) to encourage parents to read with their children and to give them appropriate guidance;
- (d) emphasis should be on the pleasure that students derive from reading and the learning skills they develop. They should not be required to produce too many book reports as this would increase their workload and dampen their interest in reading; and
- (e) to encourage students to share with their peers their thoughts and feeling about what they have read, as this would help develop their skills in expressing themselves and communicating with others.

(3) Project learning

6. Project learning refers to focused study on a particular topic to be set by teachers or students. Students can either work alone or in groups. Project learning can help students enhance their learning abilities and confidence as well as identify their interests and potentials. Through project learning, students can get to the crux of a problem, apply their knowledge of different domains and view it from different perspectives. It can also help develop students' higher order thinking (e.g. critical thinking, creativity and problem solving skills) and foster interpersonal skills, ability to work with others and an attitude for independent learning.

7. We therefore encourage schools to make use of project learning to nurture students' various abilities, knowledge and attitudes. They should take note of the following:

- (a) the process and results of project work are equally important. Teachers should give guidance to their students to help them develop the abilities and attitude described in paragraph 6 above while working on the projects;
- (b) teachers should observe the performance of students in project work and give them encouragement and advice where appropriate to help them improve and fully develop their potentials; and
- (c) teachers may make reference to students' performance in project work in assessing their progress and overall performance.

(4) The use of information technology (IT)

8. The proper use of IT can greatly enhance the effectiveness of learning and teaching. Through the Internet, teachers can access valuable teaching materials and information, support facilities and services. They can also teach students how to seek information on the Internet, and use IT to teach them certain concepts and knowledge in a more lively and interactive manner. Students will become more interested in learning and exploration, and find it easier to understand abstract concepts. The ultimate aim is to enable students to learn on their own and throughout their lives. We urge schools to strengthen the use of IT to help teachers and students improve the effectiveness in learning and teaching.

Detailed Proposals on the Basic Competency Assessments

Student Assessment

1. We propose that the Student Assessment programme should have the following characteristics:

- (a) Nature of assessment : This is a low-stake, voluntary test programme designed to diagnose and improve students' learning. Test materials will be provided centrally, and schools can administer the assessment programme and take follow-up actions on their own.
- (b) Mode of assessment: A computerized adaptive testing mode will be used for the selection and assembling of test items, administration of the assessment, scoring, recording and result analysis.
- (c) Time Schedule : Schools may administer the assessments according to their own teaching schedule and needs any time during the school year.
- (d) Scope of assessment: The initial target is the key learning areas of Chinese, English and Mathematics at all levels from P1 to S3. During the public consultation, there was feedback that the assessment should be extended to other learning areas progressively e.g. physical education. We propose to consider this issue further when the Basic Competency Assessments in Chinese, English and Mathematics are fully in place.
- (e) Content of assessment: It is closely related to the teaching content and covers the major topics in the school curriculum. For example, a list of major assessment topics will be drawn up for each learning area. Teachers may conduct assessments on those topics that suit their own teaching schedule.

- (f) Form of assessment : It will consist of a pool of diversified item format developed with the aid of multi-media technology. In addition to the tests provided under Student Assessment, adequate exemplars will also be available for teachers' reference in order to produce their own exercises for assessment.
- (g) Scoring : Basic attainment standards will be set jointly by experts, educators and lay members of the community. The criterion-referenced scores provided will show whether students have mastered the knowledge and skills in various learning areas and whether they have attained basic standards.
- (h) Supporting materials : There will be supplementary materials for remedial and enhancement purposes. Such materials should be designed for individualized learning so that students can do these exercises and assessments on their own under the guidance of their teachers.
- (i) Parents' involvement : To enhance the involvement of parents in students' learning, it is recommended that schools should consider providing two types of information to parents through electronic means (e.g. set up their own websites and send messages through e-mail) -
- (1) information on the learning progress of the students. This information should be criterion-referenced i.e. showing only whether the student has reached the basic attainment standards in the various learning areas, rather than the scores and ranks;
 - (2) remedial exercises and guidance for their children to make up for the deficiencies at home. Communication between teachers and parents on the children's progress is also encouraged.

- (j) Access to information : Stakeholders should have access to different levels of information as required. Only administrators appointed by the school authority should be eligible for accessing information on the school's central server in order to operate the Student Assessment programme and to evaluate the effectiveness of their own curriculum. Teachers should only have access to the information about their own students, and parents should only have access to their children's records and remedial materials.

System Assessment

2. We propose that the System Assessment programme should have the following characteristics:

- (a) Nature of assessment : This is a secure test, to be administered by the Government for students in P3, P6 and S3. Participation of schools is compulsory, for the purpose of analysing students' performances at the school and territory-wide level.
- (b) Mode of assessment: In order to provide a wider scope of assessment, the use of a sampling design is recommended so that students as a whole will be tested on a larger number of items, producing a more comprehensive picture of the performances of all local schools in key learning areas. It is also recommended that the assessment topics done by students of different schools should be rotated each year to broaden the coverage of the assessment.
- (c) Administration : The assessment will be centrally administered in collaboration with schools. In the long run, the assessment should be conducted in a computerized and adaptive mode while in the short run, students may still have to take the assessment in paper-and-pencil form.

- (d) Time Schedule : To be held at the end of each school year. The test for P6 students will take place after the announcement of Secondary School Places Allocation results.
- (e) Scope : The assessment will cover the key learning areas of Chinese, English and Mathematics initially and will be gradually extended to other learning areas when necessary.
- (f) Content : Based on the scope of the Student Assessment, topics suitable for central assessment will be selected for the System Assessment.
- (g) Form of Assessment : The form of assessment and type of test items should be similar to those used in the Student Assessment programme. As the scope of assessment is the same, test items can be re-used to enhance the relevance of the two instruments.
- (h) Scoring : The test items should be standardized so that the data obtained in the two assessment programmes as well as the data obtained in different years can be compared.
- (i) Access to Information : The basic objective of the System Assessment programme is to improve the curriculum and learning and teaching in schools. Since the assessment data of individual schools are for self-evaluation purpose, the school management committees including parents should have access to the data. However, the test results of individual schools should not be ranked or made known to the public. The ED should help schools to analyze and make use of the information, and provide support services to help schools make improvement.

Feeder and Nominated Schools System

1. Under the existing system, feeder and nominated secondary schools can reserve 85% and 25% of their school places respectively for Band 1 to Band 3 graduates of their feeder/nominated primary schools after deducting places for repeaters and 10% discretionary places. Based on the principle of “not giving up on any student”, we propose that those existing feeder/nominated schools which want to keep their ties may apply to form “through-train” on condition that they comply with the three principles stipulated in paragraph 8.2.70 of Chapter 8. As a transitional period will be required for these schools to prepare for changing to the “through-train” model, we propose that:

- (a) existing feeder/nominated schools should indicate clearly to the ED by 31 May 2002 whether they intend to form a “through-train”;
- (b) those schools which do not intend to form a “through-train” should immediately inform parents of those students who are likely to be affected (e.g. students applying for admission to those schools) and to adopt the SSPA mechanism applicable to non-feeder/nominated public-sector schools starting from the school year set out below:
 - Feeder schools: 2008/09 (i.e. admission to S1 in September, 2008)
 - Nominated schools: 2005/06 (i.e. admission to S1 in September, 2005)

Before the above dates, those existing feeder/nominated schools which do not intend to form a “through-train” can still stick to their old admission mechanism [i.e. after deducting 10% discretionary places, in general feeder/nominated secondary schools may reserve 85% (for feeder school) and 25% (for nominated school) of the remaining S1 places for admission of P6 graduates of their feeder/nominated primary schools]. If the number of allocation bands is reduced to three, these secondary schools may admit P6 graduates belonging to Band 1 and Band 2 of their feeder/nominated primary schools. These secondary schools may also choose to admit P6 graduates

belonging to all the three bands of their feeder/nominated primary schools to fill up the reserved 85%/25% S1 places.

- (c) For those existing feeder schools which intend to form a “through-train” but do not meet the principles stated in items (ii) and (iii) of paragraph 8.2.70 (i.e. the total number of S1 places should exceed the total number of P6 graduates, and schools should adopt the same financing mode), they should be allowed to have 10 years’ time to work out a solution with the Government. However, these schools will have to make a final decision before 31 May 2012 on whether to adopt the “through-train” model.
- (d) For those existing feeder/nominated schools which intend to form a “through-train” and can fulfil the principles stated in items (i) to (iii) of paragraph 8.2.70, and have already obtained the ED's approval to adopt the “through-train” model, they can switch to the “through-train” model in the 2002/03 school year at the earliest. These schools should start to use the “through-train” S1 admission mechanism within 6 years after they have obtained approval for adopting the “through-train” model.
- (e) For those schools falling within items (c) and (d) above, they may continue to use their old mechanism for admission to S1 as mentioned in the second paragraph of item (b) above before they formally change to a “through-train”.

2. During the consultation, some people raised objections to the proposal that the secondary and primary schools within the same “through-train” model should have the same financing mode on the grounds that this would force private primary schools having links with subsidized secondary schools to break their ties or force the subsidized secondary school to turn into Direct Subsidy Scheme schools. On the other hand, some were of the view that assistance should be rendered to these private primary schools to change to aided schools, or to allow these schools to retain their original mode of financing and to form a “through-train” with their feeder subsidized secondary schools on condition that they agreed to adopt the POA mechanism applicable to aided primary schools. We consider that even if private primary schools adopt the POA mechanism applicable to aided primary schools, as a long-term arrangement, there are drawbacks for private primary schools to form a “through-train” with subsidized secondary schools since such a combination will reduce the chance of students from the grassroots families to be admitted to subsidized secondary schools of the “through-train” system, hence hampering social mobility. Having considered the above points carefully, we propose that “through-train” schools should

comply with the principles set out in paragraph 8.2.70, but feeder schools using different modes of financing should be given 10 years' time to work out a solution with the Government during which they can still use the existing mechanism for admission to S1 (see item (e) of paragraph 1 above).

Catering for Multiple Abilities and Diverse Learning Needs

1. As mentioned in Chapter 4, the ultimate aim of education is to enable each student to attain all-round development according to his/her own attributes. To achieve this, we must provide assistance and guidance which suit their abilities and learning needs, so that they can develop their potentials to the full.

Multiple abilities of students

2. Traditionally, the development of academic ability has been the main focus in education. But in fact every person is gifted in various areas. We should help students explore their multiple abilities as early as possible so that these abilities can be developed to the full. We should also help students to make use of different abilities simultaneously to learn effectively.

Different learning needs of students

3. Apart from different abilities, students may have different learning problems or difficulties which require specific assistance and guidance. To help students solve their problems and enable them to learn effectively, we must identify their learning needs as early as possible and render assistance and guidance accordingly. Even the gifted students may have various learning obstacles. If they are not given proper assistance, their potentials will not be realised.

4. To cater for the learning needs of different students and develop their multiple abilities, we must create a favourable learning environment and suitable conditions both at the macro (the community as a whole) and micro (the assistance provided by schools) levels.

5. During the EC's consultation, respondents generally supported our proposals for catering for students' different abilities and learning needs. Some of them also put forth constructive suggestions. Having considered all, we put forward the following recommendatons:

Community support and cooperation

6. To create a favourable learning environment for students to fully develop their potentials, it will be very useful if we can foster a culture in the community that attaches great importance to the multiple abilities of

students and respects their different learning needs. Concrete support from the community is essential.

(1) The roles of the Government

7. In assisting all schools to cater for students' different needs and to develop students' multiple abilities, we recommend that the Government should play the following roles:

- The Government should further encourage schools to formulate appropriate teaching policies and strategies using the school-based approach, draw up school-based curriculum and adopt diversified teaching and assessment methods so as to cater for the different learning needs of students and develop their multiple potentials.
- The Government should also provide professional support to teachers and help them enhance their abilities in meeting the different learning needs of their students.
- Social support network should be mobilized. Schools should co-operate with different sectors (such as cultural bodies, sports organizations, youth services bodies, uniform groups, etc) to provide students with diversified learning opportunities so as to nurture their abilities in different aspects (e.g. leadership, organization, communication, creativity, sports and arts, etc.).
- Teachers should have more training in different learning areas so that they can more effectively identify and develop students' potentials in different domains.
- The Government may consider using schools' effectiveness in catering for students' diverse needs as an indicator of schools' performance. This could be an incentive for them to step up efforts in this respect.
- To promote diversity in education, schools should build on their strengths to develop their own characteristics. For example, individual schools may focus on the promotion of sports or arts. So that parents may choose schools according to their children's aptitudes and abilities.

8. Regarding the Government's role in promoting integrated education and gifted education, our recommendations are outlined below.

The promotion of integrated education

9. ED started promoting integrated education in 1997. The objective is to cultivate an accommodating school environment for children with special educational needs studying in normal schools to develop their potentials fully and forge a cordial and amicable relationship with their schoolmates. This will be achieved through collaboration and mutual support among teachers, parents and students, curriculum tailoring and diversified teaching and assessment methods.

10. A total of 7 primary schools and 2 secondary schools took part in the 2-year pilot scheme for integrated education. The ED provided professional support to the participating schools and organized training courses, seminars and workshops to equip teachers with the knowledge and attitude necessary to implement integrated education, and to foster the sharing of experiences among teachers.

11. ED has commissioned a consultancy study on the effectiveness of the scheme. The results show that:

- (i) the principal's leadership was the key to the success of the scheme;
- (ii) students with special educational needs who participated in the programme generally made progress in terms of academic performance and interpersonal skills;
- (iii) those schools that effectively carried out integrated education succeeded in creating a supportive and amicable learning environment. This did not only foster students' attitude towards mutual support and respect for others, but also enhanced teachers' confidence, knowledge and skills for helping students with special educational needs;
- (iv) as shown by the research, however, many teachers still lacked confidence in mastering the skills in caring and catering for students' diverse learning needs.

12. After considering the findings, the steering group responsible for monitoring the implementation of the pilot scheme proposed that the Government should continue the existing policy of integrating students with special educational needs into ordinary schools as far as possible. Also, more schools should be encouraged to join the programme to achieve the target of expanding the programme to 20 schools gradually by the 2000/01 school year and 40 schools by the 2001/02 school year. The Government has accepted the proposal and expanded the programme to 21 schools in the 1999/2000 school year and 40 schools by the 2000/01 school year. Furthermore, new public-sector schools must pledge to implement all the Government's education policies applicable to public-sector schools, including those on integrated education.

13. During the EC's consultation, respondents mostly agreed to the direction of promoting integrated education. Some people pointed out that the majority of teachers in ordinary schools were yet to master the skills of helping students with special educational needs. Therefore, the implementation of integrated education must proceed at a gradual pace, giving due regard to practical constraints. At the same time, more attention should be paid to public education.

14. We propose that the Government should continue to promote integrated education with the "whole-school" approach incrementally as far as practicable in order to provide school-based assistance to students with special educational needs. The use of resources now allocated to this area (including special classes, roving counselling services and after-class counselling services etc.) should also be reviewed to maximize the cost-effectiveness. The EC recommends that the Government should give consideration to the public views stated in paragraph 13 above, and work with the Board of Education to examine the feasible solutions.

15. In the long run, we support the concept of "inclusion". At present, the interpretations of 'inclusion' in different parts of the world are not exactly the same. In this context, "inclusion" refers to an education system that provides proper assistance to students according to their learning needs in order to help them develop their potentials fully. In such a system, we will still need special schools to perform the unique function of catering to students with serious and multiple impairments. For these students, special schools can still provide the most suitable learning environment to help them learn effectively. What matters is that every student should be able to learn in an environment that is most appropriate to him/her.

16. During the EC's consultation, some respondents made the following recommendations:

- (a) to compile a list of primary schools adopting integrated education to facilitate parents in choosing schools suitable for their children;
- (b) to provide central guidelines on the implementation of integrated education in schools/kindergartens/child care centres and the provision of remedial classes in schools;
- (c) to implement integrated education in kindergartens and child care centres on a full scale.

17. We recommend the Government to study the feasibility of implementing the above recommendations.

The promotion of gifted education

18. Gifted education has not received the attention it deserved in the past, and not many gifted students could obtain appropriate opportunities to fully realise their potentials. In the recent years, the Government has put in lots of efforts in this respect. In 1994, the ED carried out a Pilot Scheme on School-based Curriculum for Gifted Students (學業成績卓越學生校本課程試驗計劃) in 19 primary schools. In 1995, the ED established the Fung Hon Chu Gifted Education Centre (馮漢柱資優教育中心) to support the implementation of school-based curriculum, and a professional team comprising curriculum officers was formed in 1996 to support schools.

19. In 1998, the ED completed the review on the Pilot Scheme and formulated a plan on the future development of gifted education in Hong Kong in the light of the experiences gained. It was proposed that elements of gifted education (including higher-order thinking skills, creativity, and social skills) should be incorporated into and thereby enriching and extending the existing school curriculum. Using a school-based approach, schools could then explore and develop students' potentials in different aspects while catering for students' different learning needs. For those students with relatively higher abilities, schools could provide specialized courses to train them in a systematic manner. For gifted students, the ED suggests that schools may, apart from providing school-based assistance, make use of other resources in the society as much as possible to provide them with special training (such as teacher mentor schemes, personalised training programs and early advancement to higher classes).

20. Our view is that the above proposals are conducive to the development of gifted education in Hong Kong. As a long-term strategy, however, we think there is a need to go beyond the scope of school-based programmes, and to mobilise all parties concerned in the society to work for the development of gifted education. We propose the following:

(i) Formulating a comprehensive strategy

We propose to formulate a comprehensive strategy for gifted education that takes account of the social, economic and educational changes in Hong Kong. The policy should provide for helping gifted students achieve full development of their potentials systematically through different school-based and non-school-based programmes. Coordination of these programmes and activities should also be strengthened to achieve the optimum cost-effectiveness in terms of human and financial resources invested on gifted education. The EC recommends that a cross-sector advisory body should be set up to advise the Government on gifted education's future development and overall strategy. This advisory body may comprise academics on gifted education, educators, parents and government officials.

(ii) Emphasizing on multiple abilities

In promoting gifted education, the development of academic ability should not be the only concern. Ample opportunities should also be provided to students with talents in different domains (such as sports, leadership and art, etc.)

(iii) Wider participation and collaboration

More will need to be done to promote the understanding of teachers, parents and the community at large about students' multiple abilities and to mobilize support for and participation in the promotion of gifted education.

(iv) Devising assessment standards, procedure and tools

An assessment mechanism is integral to the implementation of gifted education. The proposed advisory body as mentioned in (i) above may also advise on the overall assessment mechanism including the standards, procedure and tools.

(v) Strengthening teachers' training

One of the prerequisites for successful implementation of gifted education is the availability of qualified teachers. At present, there are insufficient training opportunities for teachers in this respect. There is a need to plan and co-ordinate the strengthening of training in a systematic manner.

(vi) Learning from international experience

Hong Kong should draw on the wealth of experiences accumulated in many places around the world. We can suitably use the teaching materials, assessment tools and training programmes developed overseas with a view to accelerating the implementation of gifted education in Hong Kong.

(vii) Developing a flexible admission mechanism

For students to develop their potentials to the full, we need to increase the flexibility in admission and promotion. This is to provide gifted students with a way to enter school or promote to the higher classes earlier so that they can adjust their pace of learning according to their ability.

(viii) Reviewing the functions of the Fung Hon Chu Gifted Education Centre

We recommend to review the role and functions of the Fung Hon Chu Gifted Education Centre to enhance the effectiveness of its work in supporting the overall development of gifted education policy as well as co-ordinating various community resources available for promoting the development of gifted education.

(ix) Avoiding a labelling effect

The purpose of gifted education is to help students fully develop their potentials, but not to label them as gifted children. We do not hope that schools and parents would subject students to harmful drilling in order that they can become gifted students.

(2) Parental Support

21. The views and stances of parents affect the policies of schools to a large extent. If parents can support measures and policies catering for students' diverse abilities and learning needs, it will facilitate their implementation. In the case of integrated education, for example, adequate and sincere communication and cooperation between schools and parents will increase the chance of the programme's success.

22. Besides, close communication between parents and schools would help both to understand the learning needs of students. If schools and parents could join hands to provide the necessary assistance to students both at schools and at homes, it would help to improve students' learning effectiveness.

(3) Teacher Training Institutions

23. We propose that teacher training institutions should enrich the contents of teachers' pre-service training courses to help teachers develop the proper attitude and the necessary skills to cater for students' different learning needs and prepare them psychologically for the problems that may be encountered in future in dealing with students' differences. Training opportunities should also be provided to in-service teachers to enhance and update their knowledge and skills in this respect.

24. We propose that training for principals should prepare them for leading their schools in catering for students' different needs, such as skills and knowledge of conducting curriculum tailoring, adopting different teaching and assessment methods, and promoting whole-school cooperation.

25. Besides, teacher training institutions are also encouraged to provide professional support to schools, for example, by conducting research and developing effective methods of catering for students' different learning needs, promoting these methods among schools and providing professional advice to schools.

(4) Support by the rest of the society

26. Different sectors of the society are also encouraged to jointly promote the culture of respecting students' different learning needs and to give support to schools in terms of human and other resources, for

example, to help schools carry out supporting measures for students with learning difficulties or to support various gifted education programmes to help gifted students develop their potentials in different areas.

Policies and Measures of Schools

27. At the school level, it is necessary to formulate clear policies and adopt appropriate measures to develop students' multiple abilities and meet their diverse needs. The following can be considered by schools:

- (1) To identify students' learning needs as early as possible and provide appropriate assistance to students with learning impairments in the emotional, intellectual and physical aspects.
- (2) To design school-based curriculum according to students' abilities and needs on the basis of the flexible and open curriculum framework provided by Curriculum Development Council.
- (3) There should preferably be different types of grouping for students at different levels and a greater degree of flexibility in adopting different teaching methods such as subject grouping and collaborative learning.
- (4) To mobilize all members of a school (including teachers, students, parents, etc) to support the implementation of integrated education. As shown by the experience of the pilot scheme on integrated education, in those schools which succeeded in implementing the scheme, they could create a supportive environment within the school. This did not only foster students' care and respect for others, but also enhanced teachers' confidence, knowledge and skills in providing assistance to students. The leadership of principals and the co-operation of all members of the schools are crucial factors.
- (5) For students with higher abilities, schools could adopt the teaching methods in accordance with the gifted education programme outlined in paragraph 19 above. Students with exceptional talents should be arranged to receive individualised guidance by utilizing support provided by the community to help them develop their areas of strength even more effectively.

- (6) To keep in close contact with parents and help them understand the importance of teaching according to students' abilities, and to establish partnership with them.
- (7) To maximise the use of resources provided by the Government and the society as a whole in implementing various measures, such as the facilities and professional services provided by rehabilitation agencies, the Quality Education Fund, various education funds, and human and financial resources that parents could contribute.

The Roles of Special Schools

28. The roles of some of the special schools will need to be adjusted in line with the development of integrated education. There should be an effective mechanism to select the appropriate special schools to serve as regional special education resources centres, apart from their function of providing special education. The facilities of these schools and the knowledge and skills of their professional staff can provide useful support to other schools in the same district, and can assist in school-based training. In fact, special schools for children with visual and hearing impairments have been playing this role to a certain extent to promote the exchange of experiences and professional development of teachers in the past 20 years.

29. We recommend the ED to, in consultation with the Board of Education, continue its study on issues relating to the mode and mechanism of collaboration between special schools and ordinary schools.