

Reference Manual for Implementing GE in School: Acceleration Programmes

Acknowledgement

Consultation on the reference manual has been conducted through school visits, briefing sessions, focus group discussions, meetings of Curriculum Development Council Committee on Gifted Education conducted in 2006-2008. Heartfelt appreciation is extended from the Ad Hoc Committee of Curriculum Development Council Committee (Gifted Education) on Reference Manual for Implementing GE in School: Acceleration Programmes to the various school stakeholders including university professors, school heads, teachers, parents, students, school social workers and educational psychologists for their valuable opinion contributed to this reference manual for schools' reference.

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1. Introduction

1.1 Background

Since its establishment in 2003, the Curriculum Development Council Committee on Gifted Education has been making every effort to co-ordinate and plan gifted education curriculum development and advise on policies and measures related to gifted education. In past years, various ad hoc committees have been formed under the Curriculum Development Council Committee on Gifted Education to advise on the development of resources and curriculum materials such as Guidelines on School-based Gifted Development Programmes, Parent Pamphlet and Gifted Education Information Folder.

In order to guide schools on the planning and development of appropriate provision for the high ability students who advance in their learning at a pace faster than their age peers, an ad hoc committee of Curriculum Development Council Committee (Gifted Education) was formed in August 2006 to discuss and develop the Reference Manual for implementing GE in School: Acceleration Programmes .

The outstanding achievement of Hong Kong students in various domains, especially Mathematics and Science, has been recognised by international comparisons, research and contests such as PISA, TIMSS and the various Olympiads. To challenge and nurture the students with extraordinary talents who outperform their peers, it is expected or hoped that schools will provide more flexible and developmental programmes.

The demand on HK schools for meeting the needs of diverse learners has drawn even more awareness among education practitioners since the introduction of NSS and the early admission of younger-age high ability students to universities in recent years. However, acceleration, being the most controversial curriculum intervention in gifted education, often brings about myths and debates on its impact on the development of high ability students. Thus a manual for understanding acceleration and suggesting

schools, teachers and parents on their choice of appropriate acceleration options to avoid holding back high ability students while to further improve the quality of school learning and teaching for all is timely.

1.2 Purpose of developing the Reference Manual

This Reference Manual is intended to be used by school personnel in conjunction with other curriculum guides produced by the Curriculum Development Institute. While the Curriculum Development Council Basic Education Curriculum Guide (BECG) sets the scene for Gifted Education as part of the Hong Kong curriculum, the Guidelines on School-based Gifted Development Programmes, developed in 2003, provides a comprehensive picture about the meaning of gifted education, the essentials of learning and teaching of the high ability students and some suggestions in curriculum design. This Manual would form an integral part of the 'School-based Gifted Education Guideline' (which is an updated version of the Guidelines issued in 2003 and is under preparation) and to complement the BECG. It aims at making recommendations to Hong Kong schools in providing accelerated learning opportunities for the high ability students and facilitating schools in catering for their more acute needs to meet learner diversities in the NSS curricula.

To prepare a manual that is contextualised in the experiences of Hong Kong schools to enhance its practical value, interviews and surveys were firstly conducted in local schools to collect information about the needs and experiences of schools in planning and administering acceleration. The assessment instrument suggested in the manual was also piloted so as to gather feedback for compiling a *Checklist for Assessing Suitability of Grade-skipping* for schools' reference.

It is hoped that the manual will help school administrators and teachers formulate clear policy as an integrated part of the whole-school curriculum policy; deploy appropriately the internal expertise and manpower; develop an effective

selection mechanism; offer appropriate acceleration programmes; manage these acceleration programmes more effectively and facilitate the all-round development of target students with a view of developing the potential of the high-ability students accordingly.

1.3 Major components of the Reference Manual

In order to ensure a comprehensive understanding of the needs of the high ability students can be grasped by school personnel so that appropriate acceleration provisions are to be planned, the Manual will include the following components:

- A review on the significances of acceleration.
- Major principles in the selection of suitable candidates and methods for acceleration.
- Suggestions on and the pros and cons of the three modes of acceleration programmes, 1) grade-skipping, 2) subject-skipping and 3) curriculum compacting.
- Contextual analysis of the acceleration approaches currently being adopted by some Hong Kong schools.

1.4 Principles to Guided Action

To ensure effectiveness, the design and implementation of progressive acceleration programmes should vary among schools and involve adaptations based on individual school circumstances. Schools should be aware that whether an acceleration programme for high ability students should be in place will mostly be subject to the readiness of the school to plan for school-based curriculum development and to implement the curriculum as well as addressing the learning needs of high-ability students. Schools are thus advised to consider the following when adopting acceleration as the gifted programme option:

- Develop an adequate understanding and commitment in addressing the diverse learning needs of students with exceptional abilities.
- Form a team responsible for coordinating acceleration provisions in school. Apart from the administrators of the acceleration policy, members of the team should also include stakeholders who have thorough understanding of personality and needs of the potential accelerant, such as parents or guardians.
- Equip administrators and teachers responsible for acceleration with appropriate training.
- Build up a clear policy and mechanism for identification and selection.
- Adopt a whole school approach in providing learning support to the accelerated students.
- Provide appropriate and immediate emotional and pastoral/counselling support for the accelerated students.
- Establish good communication with parents on their acceleration policy.
- Examine and review periodically the effectiveness of the progressive acceleration programmes and the learning performance and achievement of the accelerated students.

1.5 Assessment tool

An assessment checklist (Appendix I) for local use has been designed to provide schools with a comprehensive and systematic guide as the primary instrument in making objective decisions on grade-skipping. Assessment criteria are formulated in this tool to facilitate the school team's discussion and deliberation on the readiness of nominated students for joining the acceleration programmes.

2. Understanding acceleration

"All the participants in the decisions seem to have reservations about acceleration. Like surgery, it is viewed as a treatment of last resort."

- Southern & Jones, 1992

This is not an uncommon quote in the literature of acceleration that vividly describes how much hesitation education practitioners hold on such practice or simply, persistent unconventionality it projects against our long established school system. A clear understanding of the meaning and types of acceleration is thus a crucial prerequisite to considering it a possible education provision for high ability students in our school setting.

2.1 Definition of acceleration

There are three main categories of strategies for differentiating instruction¹ for high ability students: enrichment, extension and acceleration. As far as their most distinctive characteristics are concerned, enrichment refers to the presentation of curriculum content with more breadth, extension refers to the presentation of curriculum content with more depth, complexity and abstractness than the regular curriculum. Acceleration refers to the practice of presenting curriculum content earlier or at a faster pace.

Acceleration is to acknowledge the diversity of learners' abilities and the fact that this difference merits educational flexibility. This is an act of intervention to move high-ability students through an educational programme at faster pace or at a younger-than-usual age. It provides study objectives which match the level, complexity,

¹ Please refer to *Guidelines on School-based Gifted Development Programmes* for details.

and pace of the curriculum to the readiness, needs, competencies and motivation of the high-ability students.

2.2 Options of acceleration

From literature, there is a wide range of strategies for acceleration (Appendix II: Types of acceleration options); among these options, three types are considered of significance and practical use in Hong Kong schools, given their resources and management:

- Grade-skipping
- Subject-skipping
- Curriculum compacting

Grade-skipping

- ◆ Grade-skipping means one or more level(s) placement ahead of one's age-peers. It can take place at any time during the school year, but it is most often done at the beginning of the school year/between semesters.
- ◆ It can expose a more able student to a more appropriate curriculum that matches closely to the student's advanced ability.
- ◆ Student with a wide range of interests or abilities and, student who is capable of performing at one or more levels beyond the current level would most benefit from grade-skipping. Student identified for grade-skipping should demonstrate himself/herself to be self-regulated, independent learners and reasonably socially mature.

Case 1

Name: Wing Chung

Age: 7-year-old (Primary 2)

Background:

- Has always been a “straight A” student in all subjects
- Can read fluently with expression and write with creative detail
- Often complained about the low level of difficulty and lack of challenge in the learning tasks, but eager for advanced thinking activities
- Is found to be emotionally and intellectually closer to older peers than to her age-mates
- Has strong family support in academic and socio-emotional development
- Participated in IQ test administered by registered educational psychologist and the IQ score shown in the report is 140.

Suggestion:

In view of the advanced academic ability and reasonable socio-emotional maturity level of Wing Chung, it is suggested that grade-skipping is a possible option.

Subject-skipping

- ◆ Subject-skipping allows a student who excels in a particular academic subject to work with other students in that area of expertise at a rate that best suits his/her ability or current level of performance. A student who is arranged with subject-skipping should have clear advanced knowledge, skills and intense interest in that particular academic subject.

- ◆ Subject-skipping can be accomplished by the student either physically moving to a higher class for instruction, or working on the advanced material in his/her current classroom.

Case 2

Name: Pok Man

Age: 12-year-old (Secondary 1)

Background:

- Shows apparent strengths and interest in Mathematics
- Profoundly ahead of his peers in his math understanding and perform in the above 90% range in a Secondary 3 test
- His subject teachers comment on their limited proficiency in curriculum differentiation to challenge him sufficiently in Mathematics
- Enjoys doing mathematics at home on his own accord and playing around with mechanical objects in his spare time
- His parents support his interest in Mathematics
- His records in other subjects are above average

Suggestion:

In view of Po Man's outstanding subject performance and intense interest in Mathematics, it is suggested that subject skipping is an appropriate educational alternative.

Curriculum Compacting

- ◆ Curriculum compacting² enables high-ability students to learn at a faster pace and with less repetition of material they already know.
- ◆ The areas the highly able student has already mastered are replaced by curricula that are more appropriate to the student's learning needs and interests.
- ◆ It is appropriate for a student who is confident of his/her knowledge in the subject area; who is motivated to learn and who has a high level of interest in the subject area being compacted.

Case 3

Name: Chin Choi

Age: 9-year-old (Primary 4)

Background:

- Masters most of the scientific investigation skills that were to be introduced in his grade level
- Lack of motivation to engage in the drilling of unchallenging and basic-level skill areas and needs for faster pace in science learning
- Has specific interest and a passion for astronomy which is not included in regular curriculum

Suggestion:

In view of Chin Choi's academic attainment and his mastery of learning skill, it is suggested that curriculum compacting is an appropriate educational alternative for him so that he can buy time for more challenging study in the area he is interested in.

² Developed by Joseph Renzulli and Linda Smith in 1978. For definition please refer to page 54.

Questions to Ponder:

- ◆ Who should and should not be accelerated?
- ◆ What are some indicators that a student should be considered for acceleration?
- ◆ What does acceleration offer that enrichment / extension cannot?
- ◆ Who determines whether a student should be accelerated?
- ◆ How can schools determine whether acceleration is appropriate?
- ◆ What can school administrators do to support accelerated students?

2.3 Major roles of school stakeholders in acceleration

High ability students will have the best opportunities to stretch their potential to the full if school heads, teachers, parents and educational psychologists/school counsellors work together to provide the most suitable programmes and services to them.

School heads' role

- leading the school to respond appropriately to high ability students' needs with the option of acceleration by:
 - ✧ setting up assessment mechanism for target students, guidelines on programme design and implementation, and mechanism of resources deployment;
 - ✧ assisting teachers to get prepared for implementing acceleration programmes and supporting accelerated students by accessing relevant professional development;
 - ✧ ensuring provision of other differentiating instructions for high ability students who are not suitable for acceleration;
 - ✧ establishing collaborative partnership that involves students, parents, teachers and educational psychologists/school counsellors to provide supports to accelerated students.

Teachers' role

- identifying students who possess advanced ability for acceleration;
- communicating with parents on target students' learning needs;
- joining up efforts of specialist support staff such as educational psychologist/school counselor and curriculum coordinator to:
 - ✧ assess suitability of target students for acceleration;
 - ✧ plan, implement and evaluate accelerated provision in meeting the needs of accelerants;
 - ✧ provide cognitive and socio-emotional support for accelerants throughout the acceleration process.
- Undertaking professional training to enhance knowledge and skills in carrying out effective acceleration practice.

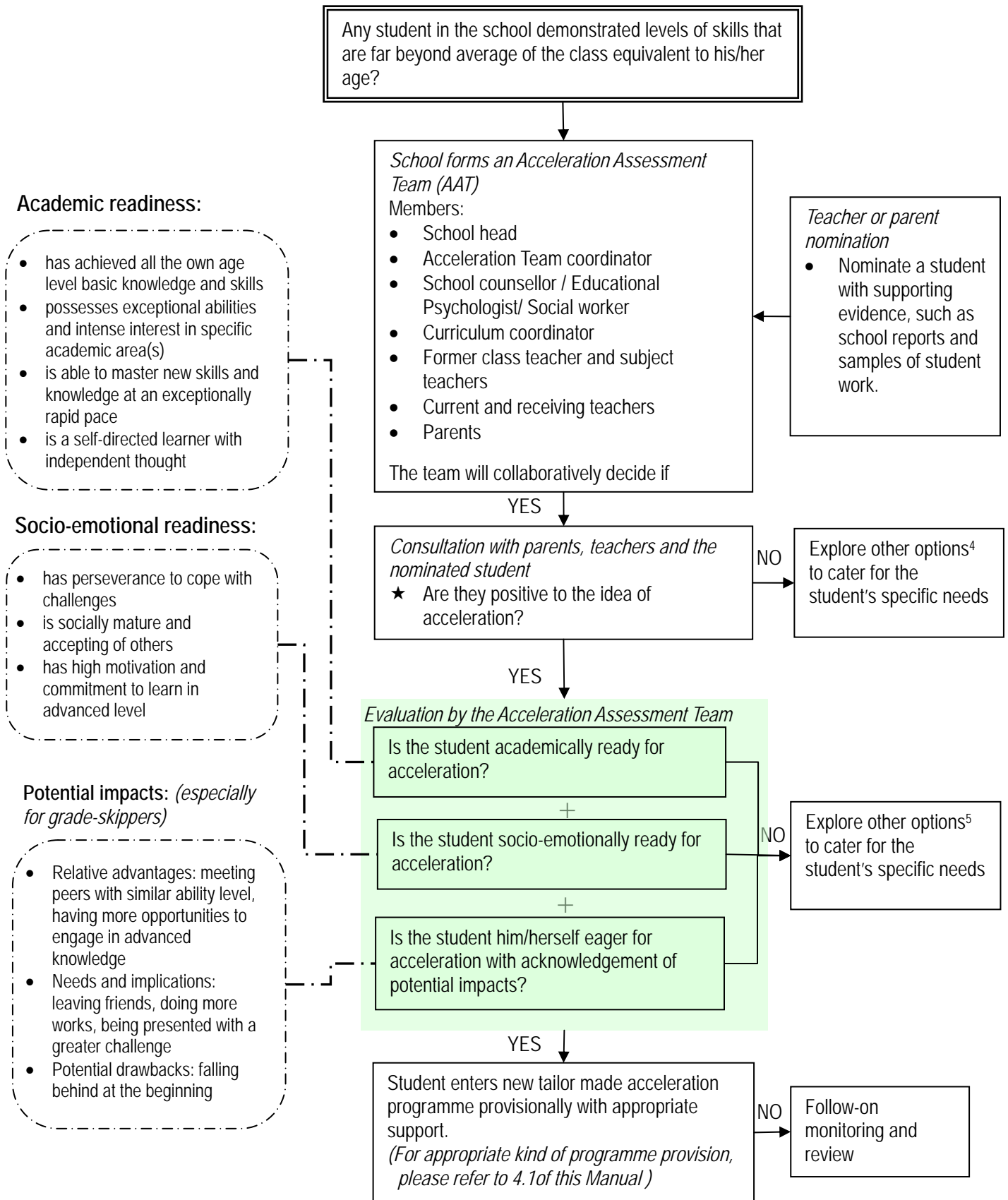
Parents' role

- understanding characteristics of high ability child who can benefit from acceleration;
- liaising with school to identify the child's strength and working in collaboration with school to ensure that the child has appropriate educational opportunities;
- providing a stimulating, supporting and caring learning environment at home.

2.4 Suggested Assessment Procedure for Target Student before Acceleration³

The success of any acceleration option will depend upon a fair and thorough assessment prior to adopting the option. The diagram below illustrates the crucial criteria schools should consider to decide whether acceleration is appropriate for a target student

³ Adapted from Acceleration Progression. State of NSW. Department of Education and Training. (2004). *Policy and implementation strategies for the education of gifted talented students (Revised 2004)* New South Wales: The Department.



^{4,5} Please refer to *Guidelines on School-based Gifted Development Programmes* for details.

The above procedure demonstrates a comprehensive examination of different factors for school personnel to take into account when considering acceleration provision. It aids all concerned parties to draw in comments and evidence from various stakeholders before deciding on the proper intervention. In order that each suggested step can be properly pursued, schools should note the followings in administering the mechanism:

- In handling cases of grade-skipping, *Checklist for Assessing Suitability of Grade-skipping* could be a guiding tool for the AAT in its early stage of discussion. This checklist helps the Team come up with important and comprehensive criteria to consider in a case conference for a potential grade-skipper. In response to the assessment criteria, the AAT should come up with a group consensus that leads to an objective and reliable decision.
- It is crucial to consult the target student. Student should be explained the advantages and potential drawbacks to acceleration. Besides, student's own concern should be deliberated carefully in the decision making process. For potential grade-skipper who find it difficult or do not willing to express his/her inner voice on acceleration, a trustful teacher or a significant other being a mentor of the student would be a great help to provide guidance for the student to determine whether to accept the option.
- Parents' opinion, even if nil or varied, should be considered seriously in the discussion by the AAT.
- Placing the potential grade-skipper in a new setting with older peers for a trial period allowing pre-acceleration transitional adjustment could be a way to further assess the student's ability to function in an accelerated environment. Performance and adjustment of the target student in the accelerated situation could be taken into account in the final decision on grade-skipping by the AAT and the target student him/herself.

- If acceleration is found not a suitable option in school, the school should address the learning needs of high ability students by other options such as enrichment, individualised education programmes (IEP), independent projects, wider range of subject choices and mentoring.

2.5 Potential pros and cons of acceleration

Teachers, parents and the target students should be well aware of both the pros and cons of acceleration before considering it as an option for catering for the learning needs of the high ability students.

Learning process	
Pros	Cons
<ul style="list-style-type: none"> • Increased learning efficiency: Students who have already mastered curricula at earlier levels will learn better and more efficiently • Increased learning effectiveness: Students engaged in learning at the level they are prepared for and for which they have mastered the prerequisite skills are more likely to learn effectively 	<ul style="list-style-type: none"> • Over focus on academic development: Expectation of students' academic performance might be so high that they would have to concentrate on academic development and the opportunities to develop other talented areas would be limited • Frustrated with pressure and demand: Constant push to perform would induce undue stress and lower students' learning motivation • Reduced co-curricular opportunities: Accelerants would be pushed to excel academically and would choose to sacrifice their participation in co-curricular activities
Academic outcomes and development	
Pros	Cons
<ul style="list-style-type: none"> • Increased options for academic exploration: Accelerants could have more opportunities to engage in 	<ul style="list-style-type: none"> • Lack of prerequisite skills: The "leap" over of the curriculum would obstruct students from having

<p>advanced education in areas outside their major interest.</p> <ul style="list-style-type: none"> • Increased time for career planning: Allow accelerants to have more time to incubate their pursuit of future career development, to attain scholarly productivity and self-achievement earlier. 	<p>systematic instruction and assessment of skills, thus hinder their learning.</p> <ul style="list-style-type: none"> • Setbacks in academic performance: Accelerants would find it difficult to measure up to higher expectation, fall behind their new peers, and possibly become mediocre. • Early commitment to career decision: Accelerants tend to be expected to make decision for their career acceleration much earlier or confused by overwhelming advice, thus result in regrets in adult life
Social and emotional adjustment	
Pros	Cons
<ul style="list-style-type: none"> • Enhanced self-confidence: The achieving high ability students recognised by acceleration would increase their self confidence and self-efficacy • Maturity matched: For many bright students who tend to be socially and emotionally more mature than their age-mates, acceleration provides a better personal maturity match with classmates that enhances personal development • Exposure to a new peer group: Accelerants could be able to enjoy more intellectual stimulus from peers with similar level of ability and learning drive. Sharing of advanced knowledge with peers further encourages their commitment in serving the society 	<ul style="list-style-type: none"> • Defeated self-confidence: Accelerants would fail to rate the top among their peers and suffer from poor self-concept • Negative labeling effect: Accelerants would have unrealistic superiority complex over the others through their faster- than -normal learning progress • Problem due to socio-emotional immaturity: Accelerants, though academically qualified, would be too socio-emotionally immature to communicate with older students • Deprived of childhood: Fewer opportunities to form childhood and adolescent friendships will become isolated or aggression towards/withdrawal from others

Towards Society and Family	
Pros	Cons
<ul style="list-style-type: none"> • Increased productivity: Young professionals often make notable contributions to society. It is beneficial to expose students to advanced study if they show early talent • Economical advantage: Acceleration reduces schools' extra need for special and additional resources to cater for the high achievers and enables more flexible and effective utilization of community resources 	<ul style="list-style-type: none"> • Tension in parent-child relationship: Parents' over-expectation of accelerated children would be burden and source of worry to accelerants

Problems associated with acceleration often stem primarily from incomplete or poor planning and insufficient follow-up support. Unsuccessful experience however serves as powerful reminders to education practitioners that appropriate measures such as the following are needed to support acceleration:

- clear procedures and criteria for identification,
- careful selection of accelerants,
- carefully planned, differentiated and monitored course content,
- adequate understanding of the accelerants' needs,
- adequate follow-up monitoring in the early stage of acceleration,
- well balanced support for the intellectual and socio-emotional growth of accelerants and
- good cooperation between parents and schools

All these attribute to successful implementation of acceleration.

3. Views of Local Schools on Acceleration

This Reference Manual is expected to offer practical advice to Hong Kong schools in considering acceleration for nurturing high ability students, thus the understanding of the experience about and perception of acceleration in Hong Kong schools will enable this Reference Manual to address directly the specific concerns and needs thus assuring its practicality in the territory.

3.1 Survey and Interview

86 primary schools and 61 secondary schools responded to a questionnaire survey carried out by the Gifted Education Section of the Education Bureau (former Education and Manpower Bureau) in July 2007. The schools were selected through stratified random sampling and their responses were considered as school's general opinion on acceleration. Five case schools were interviewed through focus group meetings and their experience in planning and launching acceleration programmes was considered. Participants in the interviews included school heads, teachers, parents and students. Furthermore, pilot trials of the Checklist for Assessing Suitability of Grade-skipping (Appendix I) have been conducted in 6 schools, which either had experience in or intended to carry out grade-skipping, so as to validate the local applicability of the instrument. The findings of the survey and interviews were finally categorised into five dimensions as shown in the following section.

3.2 Major Findings

Findings of the survey and interviews suggest positive school perception and understanding on the expected impact of acceleration on students' learning and related arrangements. The points presented in the findings (Appendix III) are agreed by most of the schools responded to the questionnaire and interviews.

3.3 Implications for Practice

The survey and interviews have collected useful information about the current practice of acceleration in some local schools. This information is believed to be of significant implications for effective practice of acceleration and will steer the recommendations and advice given to the following aspects:

- Principles of acceleration
- Major types of acceleration programmes
- School-based support for accelerated students
- Local school cases with the highlights of their rationale, implementation, impact and specific features of acceleration practices
- Suggested criteria for assessment of nominated students

The survey also identifies areas in which further support to schools and teachers is needed. Chapters 4 and 5 that follow will present a detailed elaboration of the above aspects and relevant school cases will be cited to enhance better understanding of the advice given.

4. Implementation of acceleration programmes

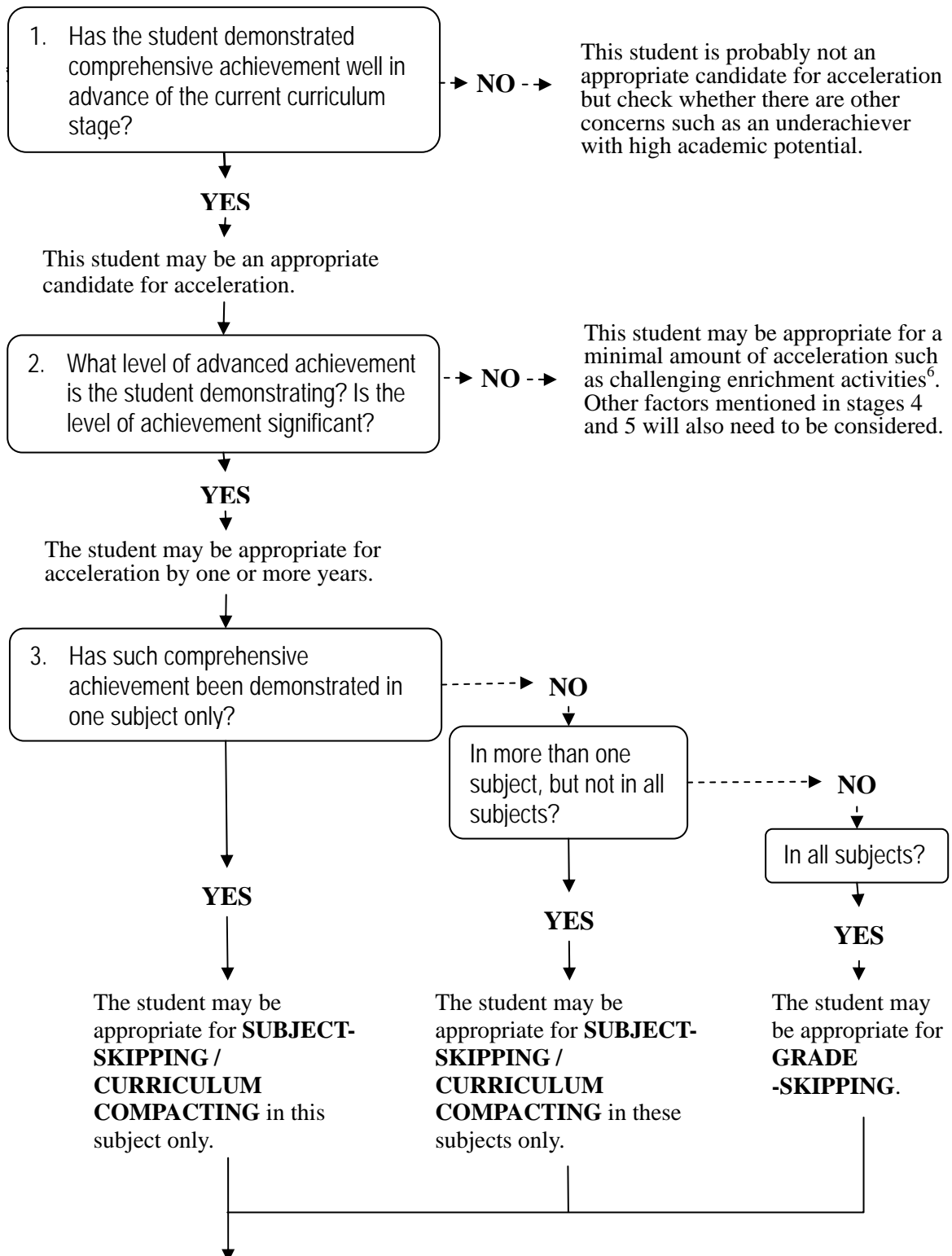
This chapter addresses the major principles in curriculum design for acceleration and the common pros and cons of the three acceleration options, i.e. grade-skipping, subject-skipping and curriculum compacting.

Questions to Ponder:

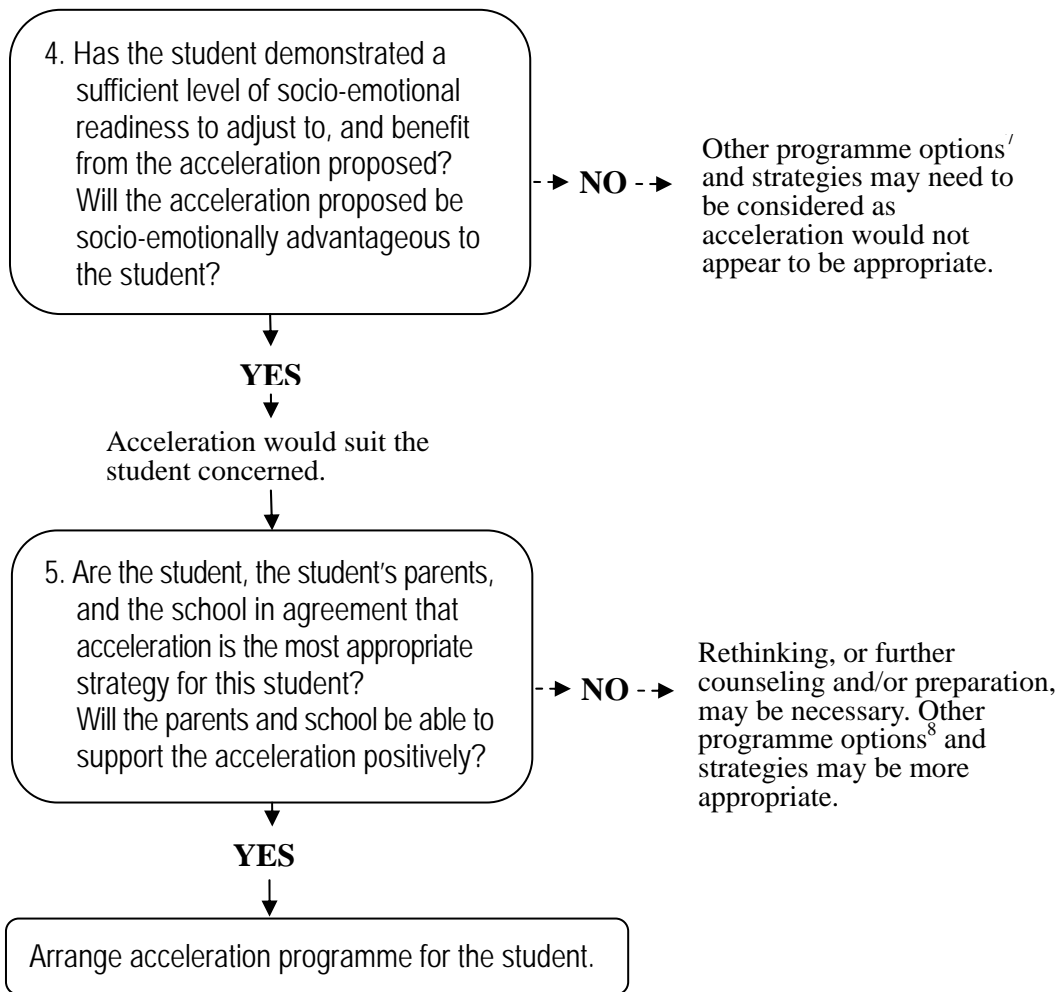
- ◆ Is acceleration equivalent to “grade skipping?”
- ◆ What other methods of acceleration are available?
- ◆ How do we identify the individual high ability students for different types of acceleration programmes?

4.1 Identification of appropriate students for different acceleration options

The flow chart that follows suggests the possible way of identifying students for different acceleration options. It helps school personnel consider different aspects of evidence for cases to be acceleration.



⁶ Please refer to *Guidelines on School-based Gifted Development Programmes* for suggestions.



Adapted from "Flow Chart: Selection of Appropriate Students for Accelerated Progression", *Guidelines for Accelerated Progression*, Board of Studies, New South Wales, Australia.

Recommended measures used to assess student capacity for acceleration:

- Assessment checklist
- academic records
- class performance
- evaluation report from educational psychologist, e.g. IQ test score
- evaluation report from school counsellor
- evaluation reports from former teachers
- school-based tests
- off-level tests
- student's works
- behavioural checklists
- class ranks
- academic prizes or awards the student achieved
- co-curricular and off-site activities records of the student
- observation of interactions with peers over a reasonable time period
- interview with the student
- interview with the student's parents

^{7,8} Please refer to *Guidelines on School-based Gifted Development Programmes* for suggestions.

4.2 Development of acceleration programmes

In developing school-based acceleration programmes, schools should decide the most appropriate programme option in accordance with target students' learning needs, teachers' readiness and school supports. Suggestions on development of acceleration provision on programme basis are set below.

4.2.1 Grade-skipping

A. Major procedural principles⁹

- **Comprehensive assessment.** There should be some comprehensive assessment of the student's intellectual functioning, academic skill levels and socio-emotional adjustment. Making critical and accurate assessment of target student's status is a crucial component for the success of grade-skipping. Any doubts arising in the assessment process should be clarified carefully to avoid mistaken decision.
- **All-round academic achievements.** Academically, the student should demonstrate skill levels above the average of the class he/she is going to enter.
- **Appropriate level of socio-emotional maturity.** Student should have a socio-emotional maturity level to be free of any serious adjustment problems.
- **Student's eagerness to advance.** Successful grade-skipping requires the student's agreement. The student needs to be included in the discussion about acceleration, and be reminded the possible advantages and disadvantages of grade-skipping. While, during discussion, student's concerns such as not preferring to stand out or not willing to separate with peers should be addressed properly to help him/her decide whether to advance.

⁹ Adapted from: Feldhusen, JF, Proctor, TB & Black, KN (1986): Guidelines for Grade Advancement of Precocious Children. *Roeper Review*, 9(1), 25-27.

- **Minimising skill and knowledge gaps.** The skill and knowledge gaps should be identified and diagnosed so that the student can be assisted in acquiring any missing basic skills and knowledge.
- **Supportive significant others.** Parents and the receiving teacher(s) should be agreeable to the acceleration and be willing to help the child adjust to the new situation. They could help student by closely monitoring the student's adjustment and provide support in accordance.
- **Avoiding excessive expectations.** Realistic expectations are the key to success. The student should not be pressured or made to feel as if e/she is a failure if the grade-skipping does not work out well. Effective communication between school and parents on student's needs would help both parties derive a reasonable level of expectation on grade-skipping.
- **Careful consideration on current class level of siblings.** It is important to consider whether there are older siblings in the class level which a student might be grade-skipped. To avoid jealousy and competition for adult time and attention arisen at home, it is strongly recommended that some other means be found to meet the student needs if s/he is being considered for a grade-skip into the classes of an older sibling.
- **Trustful school/parent partnership.** Parents should be involved in the discussion of grade-skipping by contributing accurate information to the assessment process. Schools could offer support and guidance to parents by encouraging them to share information about the student's performance in the acceleration process.

- **Favourable timing of advancement.** Ideally, grade-skipping should occur at natural transition points such as the beginning of the school year. However, mid-term could also be a good time to arrange grade-skipping for accelerants. Students who are not able to cope with new challenges after grade-skipping in the second term of a school year could stay in the same class level for one more year which should be the class level appropriate with his/her chronological age. For example, a student skips to the 2nd term of Primary 4 after he/she completed the 1st term of Primary 3. If his/her academic performance and/or social emotional adjustment in Primary 4 are not satisfactory, he/she should be allowed to stay in Primary 4 in the next year. Such a practice could be an effective way to keep the feeling of 'failed' to minimum if an untenable student is arranged to return to the original year of study.

B. Common pros and cons of grade-skipping

Pros	Cons
<p>For school/teachers:</p> <ul style="list-style-type: none"> • Easy to implement • No specific additional teaching resources required <p>For grade-skipper:</p> <ul style="list-style-type: none"> • Less likely to be bored but more motivated to learn • Less likely to trigger behaviour problems by unchallenging curriculum 	<p>For school/teachers:</p> <ul style="list-style-type: none"> • Specific arrangement in monitoring and counseling the grade-skipper is needed <p>For grade-skipper:</p> <ul style="list-style-type: none"> • Have fewer opportunities to mingle with age peers • Additional work to bridge the skills and knowledge gap could be a burden

C. Curriculum design and special support for grade-skipping

Objective	To provide an appropriate academic and personal match, while shortening the schooling, to meet high ability students' learning needs.
Learning experience	<ul style="list-style-type: none"> • The curriculum must continue to be challenging for grade-skipper. • Additional components of enrichment, counselling, flexible grouping, and individualisation could help grade-skipper develop good adaptation to changes. • Teacher should be aware of the learning needs of grade-skipper and provide appropriate levels of instruction in accordance. • Teacher should ensure sufficient exposure of the grade-skipper to advanced content
Evaluation on the learning outcomes	<ul style="list-style-type: none"> • Examining class rank, school-based test and examination scores and teachers' observation on learning attitude to evaluate academic outcomes • Using teacher observation, school attendance rate, leadership behaviour, number and patterns of friendships, attitudes toward school and participation in co-curricular activities to evaluate socio-emotional adjustment

<p>Evaluation on the learning outcomes (cont')</p>	<ul style="list-style-type: none"> • Distributing questionnaires to the grade-skipper to assess social or personal problems, conformity to school regulations, reading habits, non-assigned study time, time spent watching television, time spent with hobbies, as well as perception of the grade-skipping
<p>Special support for grade-skippers</p>	<p><i>Role of parents</i></p> <ul style="list-style-type: none"> • Allowing their children to develop a sense of direction without pressuring them to succeed • Providing emotional support during the initial transition of grade-skipping • Providing tutoring at home to help the student “catch up” on critical content that may have been skipped in the acceleration process • Facilitating off-site learning opportunities for additional enrichment and social development <p><i>Role of school</i></p> <ul style="list-style-type: none"> • Cultivating an open and accepting atmosphere with avoidance of unnecessary labeling or conspicuous attention • Providing some remedial work to fill the gaps in the student’s skills and knowledge

<p>Special support for grade-skippers (cont')</p>	<ul style="list-style-type: none"> • Providing differentiated instruction even in the accelerated setting • Offering necessary curriculum adjustment in subjects which are designed according to students' developmental needs. For example, a student in P3 moving into P5 might encounter difficulties in joining collective games or competition in PE classes due to the physical limitation in his/her psychomotor development stage. For the sake of student's balanced development, arranging the grade-skipper to attend PE classes in his/her original class could be an option. • Offering counselling service to help grade-skipper manage expectation from others and pressure arising from new challenges • Helping the grade-skipper socially by monitoring the student's adjustment and introducing the student to friendly peers. A mentoring system with senior accelerated student who excels in similar area mentoring junior grade-skipper is helpful for his/her to cope with challenges • Making efforts to help parents understand what is appropriate in terms of giving support
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<p>Special support for grade-skippers (cont')</p>	<p>to grade-skipper without imposing unnecessary pressure.</p> <ul style="list-style-type: none"> • Offering individualized education programme for grade-skipper who has exceptional learning needs which are not able to be met in regular classes. • Monitoring closely on the performance of the student. Any persisting unsatisfactory social and academic performance might indicate that the grade-skipper would be becoming untenable. Receiving teacher and school counsellor should jointly provide remedial support to the student accordingly.
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According to the major principles of grade-skipping, students considered to be suitable for such programme option are most likely the high ability students with all-round outstanding performance. They demonstrate above average mastery of the knowledge and skills in general most of the academic areas. Promoting to a higher grade will definitely provides more challenging learning opportunities to these students.

4.2.2 Subject-skipping

For students who excel in individual KLAs, subject-skipping or curriculum compacting can be more appropriate options to nurture their particular talents, and keep them motivated to pursue higher goal in learning.

The target students for subject-skipping and curriculum compacting can be identified through observation and assessment by subject teachers and KLAs coordinators on their extraordinary abilities and interests demonstrated in different KLA-related activities. The KLA specific abilities and interests of students are listed in the following table for reference. (The information of the following table, as an example, is extracted from the Nomination Guidelines of the Support Measures for the Exceptionally Gifted Scheme. Detailed checklists of individual KLA can be found in the website of the Gifted Education Section at <http://www.edb.gov.hk/cd/ge>)

Mathematics Education	Science Education
<ul style="list-style-type: none"> ➤ Persistent in learning math, high concentration, hard working, motivated, interested. ➤ Enjoys trying to solve difficult problems, likes puzzles and logic problems. ➤ Interested in numbers and quantitative relationships, sees usefulness or applications of mathematics. ➤ Learns math concepts and processes faster than other students. ➤ Develops unique associations, uses original methods for solutions. ➤ Recalls relevant information or concepts in solving problems, recognises the critical elements. ➤ Generalizes mathematical relationships, relates concepts in various applications. ➤ Resourceful in seeking ways to solve a problem. 	<ul style="list-style-type: none"> ➤ Persistent in learning science, high concentration, hard working, motivated. ➤ Interested in science books and television programmes, enjoys science fictions. ➤ Enjoys trying to solve difficult problems in sciences by logic deduction. ➤ Organises data or analyses an observed phenomenon to discover patterns or relationships. ➤ Good at observing, exploring, questioning, investigating things in detail. ➤ Understands scientific methods, able to formulate hypotheses and conduct experiments carefully. ➤ Skillful in using lab equipment, able to improve on experiments. ➤ Persistent, sticks with investigations in spite of difficulties or problems, has high level of energy.

Chinese / English Language Education	Personal, Social and Humanities Education
<ul style="list-style-type: none"> ➤ Organises ideas and sequences well in preparation for speaking or writing. ➤ Reads widely for a period of time in a variety of types of literature. ➤ Develops convincing characters and situations in writing. ➤ Strong instinctive understanding of language, e.g. sensitive to semantic meaning and emotion between lines. ➤ Is able to support the main idea by using details and examples at the paragraph level. ➤ Can show essay development including introduction and conclusion. ➤ Uses appropriate linguistic forms and structures; mistakes in sentence structures do not detract from meaning. ➤ Learns new vocabulary words and grammatical concepts rapidly, and even make critical judgement. 	<ul style="list-style-type: none"> ➤ Displays intellectual curiosity, becomes interested in a variety of topics not required or assigned. ➤ Sensitive to social issues, sees ethical and moral questions. ➤ Interested in social themes, complex public issues, explanations, and theories of causation. ➤ Suspends judgement, entertains alternate explanations or points of views while exploring a question. ➤ Aware that statements about people depend for their validity on the authority and type of available evidence. ➤ Attracted toward cognitive complexity; enjoys puzzles, paradoxes, mysteries. ➤ Asks questions and challenges knowledge. ➤ Skilled in analyzing topics, finding the underlying problem, questioning, investigating.

Adapted from: Feldhusen, J.F., Hoover, S.M.H., & Saylor, M.F., (1991), "Purdue Academic Rating Scale in Identification and Educating Gifted Students at the Secondary Level. Australia: Hawker Brownlow Education.

The students significantly outperform their peers with the above-mentioned characteristics should be considered as potential candidates for subject-skipping or curriculum compacting. With reference to the chart for identifying students for acceleration programmes in 4.1, the social emotional maturity and eagerness to advance of the target students should also be taken into account.

A. Major procedural principles

- **Student's outstanding subject performance.** Student should demonstrate one or two level(s) advanced achievement in the particular subject(s)
- **Comprehensive subject assessment.** Assessment of students on which subject(s) of the curriculum they perform eminently and the subject skipping should cater for the acceleration in the area(s) only
- **Evidence-based selection of student.** Students are selected for subject acceleration based on factors including student, parent and teacher nomination and other teacher assessment. Attention should also be given to the student's ability to work and think independently.
- **Student's eagerness to advance and learning motivation.** The students should have a high level of interest in the accelerated subject(s) and eager to move ahead in the subject(s).
- **Appropriate class time-tabling.** The arrangement of the timetable should allow subject-skipper to attend the class of subject-skipping at the higher grade.
- **Appropriate level of social maturity.** Students should be socially mature and prepared to take a risk to meet academic challenge.
- **Sustainability or extension in the subject learning.** There should be a plan for continuous progress on the learning of the subject after subject-skipping for the moment. For example, mentorship scheme, independent study or individual educational plan in the further future of advanced study of the accelerated subject.

B. Common pros and cons of subject skipping

Pros	Cons
<ul style="list-style-type: none"> • Keeping the student motivated to learn • Imposing minimal disruption on student learning and social development • Having same teachers involved usually in adjoining years of same subject to facilitate student's adjustment in new learning environment. 	<ul style="list-style-type: none"> • Timetabling constraints

C. Curriculum design and administrative arrangement for subject-skipping

Objective	To provide a better academic match to meet high ability students' learning needs in individual subject(s).
Learning experience	<ul style="list-style-type: none"> • Subject matter should be carefully planned and monitored to cater for the learning needs of the subject-skipper • Independent learning sessions such as computer-assisted instruction, project learning could be supplementary learning experience for subject-skippers
Evaluation on the learning outcomes	<ul style="list-style-type: none"> • Examining class rank, school-based test and examination scores and teachers' observation on subject-skippers' learning attitude of the accelerated subject to evaluate academic outcomes • Examining the independent learning ability

Administrative arrangements for subject-skipping	<ul style="list-style-type: none"> • Timetables can be structured so that a particular subject is simultaneously studied by adjoining stages, so that student movement across stages is simplified. (See example in Appendix V)
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4.2.3 Curriculum compacting

A. Major procedural principles

- **More challenging study.** Facilitate advanced students to study more challenging and interesting materials at a faster pace after basic skills and course content are taught.
- **Accurate pre-assessment.** There should be pre-testing of students to establish their current skill levels and achieved learning outcomes in order to determine the level of challenge in the replacement materials.
- **Evidence-based selection of student.** Students should demonstrate outstanding subject-specific measures of outcomes and dislike drill, recitation and whole-class learning experience. They should also have good grasp of independent learning skills, task commitment and motivation.
- **Reorganising the regular curriculum.** Eliminating curricular material that students have already mastered and replacing it with more appropriate learning activities so that fast learners can buy time for engaging in enrichment activities
- **Challenging replacement materials.** Replacement materials must focus on student interest and should be challenging to relieve high ability students of the boredom resulting from unchallenging work in basic skill areas

- **Identical assessment.** Assessment for the students undertaking a compacted programme should be based on the same material on which others in the class are being assessed to avoid students' unwillingness to jeopardise their good results in core work.
- **Clear evaluation criteria.** All criteria for evaluation should be presented and understood before students begin an extended activity. It is also important for students to understand that they need to be working independently during "compacted" time; otherwise, they may need to rejoin the regular instructional group.
- **Record keeping.** Should be maintained as part of the student's individual record to allow forthcoming follow up work.
- **Collaborative effort.** Should be carried out cooperatively by classroom teachers and supporting teachers in enrichment session. Teachers should have the capacity to provide differentiated materials , such as tiered assignment¹⁰, for replacement.

B. Common pros & cons of curriculum compacting

Pros	Cons
<ul style="list-style-type: none"> • Compacting releases time for more challenging learning experience • The pace of instruction and practice time is flexible and can be tailored made according to student's individual needs 	<ul style="list-style-type: none"> • Replacement of what has been eliminated with appropriately challenging content and activities would be a more challenging task for teachers • Teachers will need specific preparation or training for

¹⁰ Tiered assignments are parallel tasks at varied levels of complexity, depth and abstractness with various degrees of scaffolding, support, or direction.

Pros	Cons
	<p>planning what to substitute for high-ability students</p> <ul style="list-style-type: none"> • Negotiation of teaching different topics to different groups of students could be a complex task

C. Curriculum design for curriculum compacting

Objectives	<ul style="list-style-type: none"> • To create a more challenging learning environment by “buying” time for more appropriate enrichment and/or acceleration activities with greater degree of learning autonomy
Steps for implementing curriculum compacting	<p>Step 1: Identify the learning objectives in a given KLA.</p> <p>Step 2: Use appropriate assessment tool</p> <ul style="list-style-type: none"> ⇒ Finding or developing assessment tool to assess students’ achievement on the objectives before instruction. <p>Step 3: Identify students who may benefit from curriculum compacting</p> <ul style="list-style-type: none"> ⇒ Identifying students who may be capable of learning with less instruction or drilling time than other students. ⇒ Identifying students’ specific content area strengths to ensure they are excused

<p>Steps for implementing curriculum compacting (cont')</p>	<p>from class for enrichment activities or independent study only during their curricular strength times.</p> <p>Step 4: Determine students' mastery level of course content</p> <ul style="list-style-type: none"> ⇒ Making consensus on the definition of mastery among teachers. ⇒ Guiding information for what skills and general knowledge should be eliminated. <p>Step 5: Eliminate instructional time, practice or drill for students who show mastery of the objectives</p> <ul style="list-style-type: none"> ⇒ If a student has mastered three out of five objectives in a unit, that student could be exempt from the classroom instruction of those three objectives and exposed to learning experience that matches up with his/her learning pace and abilities. <p>Step 6: Offer challenging enrichment alternatives¹¹ for time provided by compacting</p> <ul style="list-style-type: none"> ⇒ Possible replacement activities could be independent or small group work on self-interested topics, self-directed study, hands-on projects or mentoring. <p>Step 7: Keep records on compaction process and students' learning progress</p>
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¹¹ Please refer to *Guidelines on School-based Gifted Development Programmes* for suggestions.

<p>Steps for implementing curriculum compacting (cont')</p>	<p>⇒ Records should contain students' strength areas with supporting academic results, assessment tool used to determine mastery level and enrichment alternative experienced.</p> <p>(Adapted from S.Reis, D.Burns & J.Renzulli, 1992)</p>
<p>Evaluation on the learning outcomes</p>	<ul style="list-style-type: none"> • Assessment methods used for autonomous learning activities such as rubrics, student self-assessment, peer-assessment and student reflection records could be used to evaluate students' extended tasks. • Responsibility for evaluating student work is better shared between teachers and students. Students could be engaged in producing the scoring rubrics and evaluate their own work.

Questions to Ponder:

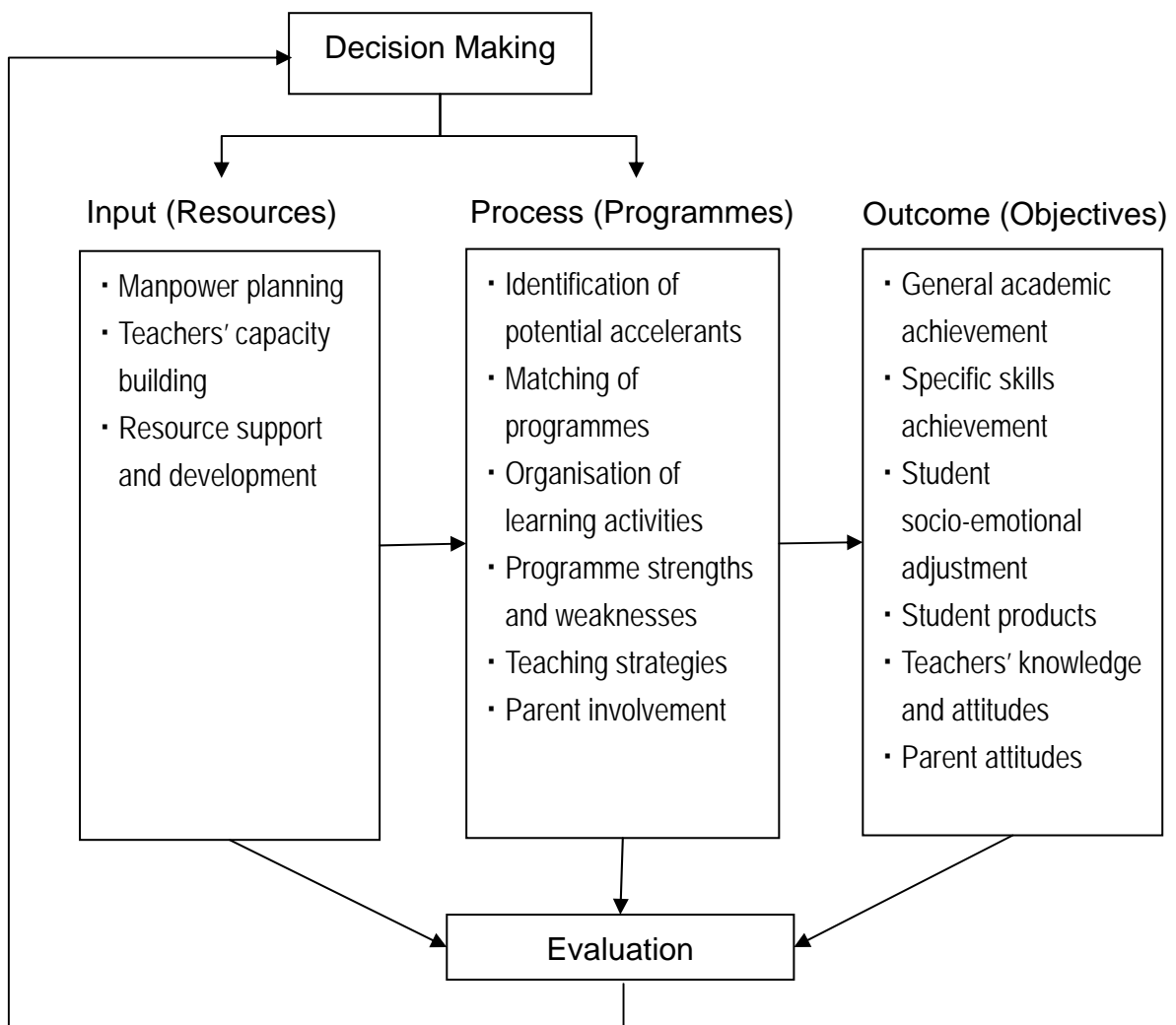
- ◆ How do we evaluate the effectiveness of acceleration programmes?
- ◆ What do we evaluate for understanding the impacts of acceleration on the students' learning and adjustment?
- ◆ In what ways can we make use of the evaluation findings for programme improvement?
- ◆ What steps are included in a continual monitoring of the performance and adjustment of the accelerants for assuring them of timely support?

4.3 Evaluation of acceleration practice

4.3.1 General principles of evaluation

- assess if the practice serves the intended goals
- highlight the strengths and weaknesses of the acceleration practice
- identify critical issues influencing the effectiveness of the practice
- ensure instruments and procedures used to conduct evaluation should be valid and reliable for targeted practice

4.3.2 Evaluation process



Adapted from Rimm's Model (1977)

4.3.3 What if unsatisfactory outcomes arise?

There is no definite cut-off, in terms of duration and measurement of the adjustment and performance of grade-skipper or subject-skipper during the participation in an acceleration programme, for judging their success or failure. However, in case of continuous unsatisfactory outcome observed during the first 6 weeks of acceleration as suggested by researchers and school practitioners that, for instance, the student

- ◆ feels undue pressure or stress caused by unexpected maladjustment or learning problem,
- ◆ shows enormous difficulty meeting greater academic challenge, or
- ◆ demonstrates unwillingness to stay in the new setting, etc.

With these outcomes proven harmful to the development of the student, the student should be made aware of the trial nature of the placement and informed that he or she may choose to return to the previous setting without worry of being labeled a failure. Such a trial option should embody thorough counseling support to the student and communication with the parents.

4.3.4 Record of student

A comprehensive record of any student who has been accelerated should be regularly updated and accessible to teachers and parents. Supporting documentation on each record should show evidence over time of the suitability or necessity for accelerated progression. Such documentation should reveal a trend extending back beyond the current year so that cross reference could be made by personnel involved.

5. School Cases

This chapter highlights the rationale, implementation, impact and specific features of the acceleration practices in a few local schools. The following models are not exhaustive but to disseminate some examples of acceleration programmes in Hong Kong for reference only.

School A – Parent Request and Support

Background	<ul style="list-style-type: none"> ◆ A through-train school under the direct subsidy scheme which has been established for 5 years ◆ Students are generally with high calibre.
School administrative arrangement	<ul style="list-style-type: none"> ◆ Principal disseminates the school policy and administrative arrangement on acceleration to all teachers in every communication channel. ◆ Teachers generally perceive acceleration as a common practice to cater for their students' educational needs. ◆ Acceleration is usually requested by parents. The school will consider the case with reference to comments by educational psychologist and teachers who are actively involved in the decision making process. Acceleration is put into practice only after detailed discussion with parents and the target student. ◆ Student's academic ability is the key criteria for considering acceleration, while a high level of social and emotional maturity is also required for acceleration practice. ◆ The forms and numbers of provision of acceleration programmes for target students are multifarious. It highly depends on the needs of the students.

Implementation and impacts of acceleration programmes	<ul style="list-style-type: none"> ◆ Grade-skipping is most commonly adopted as an acceleration strategy to cater for remarkably bright students. ◆ Teachers would make adaptation on their school-based curriculum tailor made for grade-skippers ◆ In order to cultivate the spirit of self-directed learning, not only the pace of learning, but also the option of learning experience is regulated to meet the learning needs of the grade-skippers ◆ Grade-skippers are requested to have supplementary self-study on the knowledge and skills skipped due to acceleration. ◆ Most of the grade-skippers are found to have improved socio-emotional behaviour.
Highlight on features	<ul style="list-style-type: none"> ◆ There is an escape clause of acceleration. Students are allowed to go back to their original class of study if they found it unendurable in coping with challenge after grade-skipping. ◆ Parents' support is a crucial factor contributing to the success of accelerated students. The good adjustment and performance of accelerants, to a great extent, attributes to the academic and socio-emotional support from parents.

School B – School Early Selection

Background	A primary school located in a new town with eight years of history.
School administrative arrangement	<p>The school arranges special acceleration practices for high-ability students to help them achieve their full potential,</p> <ul style="list-style-type: none"> ◆ After academic assessment at the end of first school term, the top 20 Primary 1 students will be invited to join an after-school acceleration lesson for the study of the P.2 curriculum. ◆ Socio-emotional ability of the top few students in the after-school

<p>School administrative arrangement (cont')</p>	<p>acceleration class will be assessed by teachers and school counselor/social worker/educational psychologist. Those students demonstrate satisfactory level of socio-emotional maturity would be arranged to have grade-skipping upon common consensus with the students and parents.</p> <ul style="list-style-type: none"> ◆ Grade-skippers will be arranged to study in the second best class with smaller class size. They are always arranged to sit in the front row of the classroom to receive more attention from teachers. Also, peer support is facilitated by arranging non-grade-skippers with caring character sitting next to the grade-skippers.
<p>Implementation and impacts of acceleration programmes</p>	<ul style="list-style-type: none"> ◆ Teachers have to ensure students' accelerated learning is appropriate and without detrimental effect on their future learning. The accelerated students should not miss any knowledge and skills due to grade-skipping. ◆ Acceleration class covers the core knowledge and skills in Chinese Language, English Language and Mathematics, supplement with learning and thinking skills training. ◆ Learning and teaching objective of acceleration class is to bridge up the learning content through P.1 to P.3. ◆ Individual educational plan is designed for every grade-skipper to cater for their special learning needs. ◆ Teachers would ensure grade-skippers have good grasp of prior knowledge before the starting of a new topic. ◆ Grade-skippers receive training for nurturing their creativity. ◆ Self image and self-confidence of grade-skippers are found to be improved and which foster their academic and socio-emotional development.

Highlight on features	Acceleration is implemented regularly in the school where a school-based mechanism is formed to identify high ability students with special consideration of their maturity. Students who can meet the requirement will be offered the opportunity for grade-skipping.
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School C – School Selection at All Levels

Background	<ul style="list-style-type: none"> ◆ This is a primary school with over 50 years of history. ◆ Gifted education has been developing in the school for over ten years. ◆ Academic level of most students is much above average and able to achieve high performance.
School administrative arrangement	<ul style="list-style-type: none"> ◆ A Gifted Education Team (GET) is formed for developing school-based policy and designing various teaching strategies to cater for the special needs of the high ability students. ◆ Selection Mechanism for grade-skipping candidates: <ul style="list-style-type: none"> ★ Parents of the top five students in every class level are eligible to request grade-skipping for their children. ★ Teachers from the GET and the principal would first meet the target students and their parents to understand their opinions on grade-skipping. ★ The candidates will need to take the year-end academic assessment of the next year-level to have their ability verified. ★ Suitable candidates will be arranged to skip a grade. ★ The learning and emotional performance of grade-skippers are closely monitored by the GET especially in the transition period. A counselling team would also provide necessary support for students' adjustment to grade-skipping.

School administrative arrangement (cont')	<ul style="list-style-type: none"> ◆ Students with IQ score 130 or above, and rank in top 10 in Chinese Language, English Language and Mathematics among their peers of the same class level, or perform remarkably in art or nomination from parents are eligible to be members of the Talent Pool of the school.
Implementation and impacts of acceleration programmes	<ul style="list-style-type: none"> ◆ Three major acceleration options are implemented in the school: <ul style="list-style-type: none"> ➤ Subject-skipping (Individual cases) <ul style="list-style-type: none"> ★ Grade-skippers study in advanced grade-level classes after academic assessment by the GET. ★ They will be in a class of fewer students and such small-class teaching facilitates better catering of individual needs. ➤ Subject-skipping (whole class) <ul style="list-style-type: none"> ★ All students study English Language and Mathematics in next higher level. E.g. all P.1 students study P.1 and P.2 curricular in their first year. ★ All newly admitted P.1 students will be required to take supplementary lessons of P.1 curriculum in summer vacation before their P.1 school term. It aims to ensure they are ready to measure up to the standard of P.2 curriculum in their first school year's study. ➤ Curriculum compacting: <ul style="list-style-type: none"> ★ Curriculum compacting is arranged for the extraordinarily bright students in P.4 to P.6. ★ A gifted education resources centre is established in school to match up with the operation of curriculum compacting.

<p>Implementation and impacts of acceleration programmes (con't)</p>	<ul style="list-style-type: none"> ★ It is a process of self-regulated learning process. Students participate in their regular class for the first 15 minutes. Then, they move to the resources centre for their independent learning on the topic discussed in class. Finally, they have to present their findings to the whole class before the end of class. ◆ Students are generally more motivated and interested in learning as they are engaged in learning at the level they are prepared for. Also, self-concept of the students is further enhanced as their high ability is recognised and developed by acceleration. ◆ Counselling support is provided for those who might encounter difficulty in coping with academic challenge. ◆ Acceleration practices are welcomed by parents and they agree to the positive impact brought by acceleration on their children's learning.
<p>Highlight on features</p>	<ul style="list-style-type: none"> ◆ The school is experienced in adopting acceleration as a strategy to cater for educational needs of high-ability students. Such a school-based mechanism for acceleration practices strives for a balance between accelerating the pace of student learning and providing space for their development of potentials.

School D – Student-need Basis

Background	A well-established primary school with grade-skipping adopted for a few years.
School administrative arrangement	<ul style="list-style-type: none"> ◆ The school adopts grade-skipping as one of their strategies to cater for the educational needs of high-ability students. ◆ Grade-skipping request can be initiated through two channels: <ul style="list-style-type: none"> ★ Teachers' nomination: the nomination is based on the daily observation of students' learning and academic performance. ★ Parents' nomination: they can request for grade-skipping if their children show advanced learning and thinking ability ◆ There are two ways of assessing students' readiness for grade-skipping: <ul style="list-style-type: none"> ★ Assessment on child's social-emotional development: such could be conducted with input from teachers, parents, student guidance personnel and psychologists. ★ Academic assessment: the potential grade-skippers should be able to achieve outstanding result in a school-based academic assessment to prove that they are capable of meeting the academic standard of the target level ◆ Grade-skipping is only arranged at the beginning of school year. ◆ The school arranges supplementary lessons in the summer for grade-skipping candidates to help them adjust to new challenge. ◆ For students who excel in individual subject, subject-skipping through pull-out programme would be arranged. The school once arranged a P.2 student to join the Mathematical Olympiad class in

School administrative arrangement (cont')	P.4 standard instead.
Implementation and impacts of acceleration programmes	<ul style="list-style-type: none"> ◆ There are lesson co-planning sessions among teachers to prepare for lessons with elements of creativity and high order thinking skills. ◆ Information technology is used as the major tool to facilitate independent learning of the high-ability students. ◆ Grade-skippers are found to become more attentive in class as their learning needs are matched up with the advanced curriculum.
Highlight on features	There is no regular and established mechanism for acceleration practices. When considers application of grade-skipping, the school tends to look into the individual needs of the applicants and process the grade-skipping on a case-by-case-basis.

Parents Voices

- 😊 “Grade-skipping does cater for the advanced intellectual level of my child.”
- 😊 “My child is arranged to sit next to a classmates with outstanding academic performance. This enables my child to have better adjustment to new challenge after grade skipping.”
- 😊 “I hope there is subject-skipping arrangement for my daughter to measure up her intense interest and great talent in Mathematics.”
- 😊 “My son has good social adjustment after grade-skipping as he shares the similar intellectual and maturity level with his new classmates.”
- 😊 “I spend lots of time to talk with my kid about her feelings on grade-skipping so that I could be well informed of her feelings and difficulties. I think the communication help her adapt to her new environment and be courageous to meet challenge.”
- 😞 “I found there were adjustment problems of my son after grade-skipping. I hope there is transitional trial period for grade-skippers. If the child find it too challenging to manage the stress from grade-skipping, going back to his original class could be an option for him”

Grade-skippers Voices

- 😊 “I am happy to have grade-skipping as the learning experience is much more challenging than before.”
- 😊 “It’s so nice to know more friends after grade-skipping and I can share my bright ideas with them.”
- 😞 “My mother gives me great pressure after my grade-skipping. I have no choice but joining lots of supplementary lessons to keep up with my high rank in class. I am so sad that all my leisure time is deprived.”

Conclusion

Academic acceleration is among the various strategies that can be employed to cater for the special needs of high ability students. In view of the fact there also exists a diverse difference and needs among these students, educational practitioners should be eclectic in the choice of programme that best matches the needs of them. Since high ability students generally differ from their age peers that they have already possessed a more comprehensive understanding of the learning at hand; they have a stronger urge to pursue more in-depth study and they pick up information and new concepts at a faster pace, therefore enrichment, extension and acceleration are the proper strategies that can bring about more depth, breadth, complexity or abstractness as well as a faster pace in the students' learning.

This Reference Manual discussed in greater details of three major types of acceleration options, grade skipping, subject skipping and curriculum compacting, while other possible options, such as enrichment, mentoring and independent study can also be considered by schools to cater for the diverse needs among high ability students.

Acceleration is highly favoured by local schools, teachers and parents, however, it should be cautioned that this educational provision only addresses partly the needs of high ability students. Their thirst for breadth and depth in learning can only be fulfilled by considering alternatives other than acceleration.

No matter what programme is chosen, we have to bear in mind that the success of any provision can only be achieved when proper and comprehensive assessment, close monitoring of the participants' performance and adjustment, and continual support from school and family are in place. Moreover, schools should be aware that whether or not they provide acceleration programme for the high ability students and how successful the acceleration programme is will mostly depend on their readiness to implement the programme, adjust the school-based curriculum planning and cater the learning needs of students.

6. Appendices(I-IV)

Appendix I

Checklist for Assessing Suitability of Grade-skipping

Instructions:

1. To achieve objective assessment, members of the AAT (see 2.4 of this Manual for details) should read the criteria carefully and discuss them in detail. The response to the assessment criteria should reflect the group consent of the AAT members. Schools should use the checklist to guide the AAT discussion and help the members come up with important and comprehensive criteria in a case conference for a potential grade-skipper. If necessary, different subject teachers could be invited to participate in the assessment process.
2. For student able to meet more criteria in the checklist (i.e. more "Strongly Agree"/"Agree" than "Disagree"/"Strongly Disagree"/"not sure"), he/she is more likely to be considered as a suitable candidate for grade-skipping. On the contrary, the school should check whether there are other critical factors or explore other strategies to cater for the student's needs.

Student name : _____ Student gender : _____

Current class level : _____ Proposed level for grade-skipping: _____

Student's chronological age: _____ (Year) _____ (Month) _____ (Day)

Date of form filling: _____

Participants in assessment:

Name	Position	Name	Position

Please choose the scale (Strongly Agree/Agree/Disagree/Strongly Disagree/Not Sure) that best reflected the students' performance or characteristics specified in the criteria.

Assessment Criteria	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure
Cognitive Ability and Performance					
• Student scores at or above 90 th percentile in academic assessments in the latest school year					
• Student demonstrates knowledge and skill levels above the average of the class of intended entry.					
• Student shows higher ability and intense interest in multiple key learning areas (KLAs).					
• Student demonstrates a creative mind in finding problem and solving it in his/her own way both in KLA-specific and cross-KLA areas.					

Assessment Criteria	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure
<ul style="list-style-type: none"> *Student possess a level of mental development two or more standard deviation above the mean for the grade to be entered. (e.g. IQ score 130 or above) 					
<ul style="list-style-type: none"> Other: _____ 					
Attitude and Motivation					
<ul style="list-style-type: none"> Student shows self-confidence and positive attitude towards his/her academic achievement 					
<ul style="list-style-type: none"> Student is eager to move ahead and ready to persist in new and higher-level academic challenges. 					
<ul style="list-style-type: none"> Student is self-motivated in learning and enjoys independent study. 					
<ul style="list-style-type: none"> Student completes most assignments more quickly and more effectively than other classmates do. 					
<ul style="list-style-type: none"> Student achieves over 90% of attendance in the latest school year 					
<ul style="list-style-type: none"> Other: _____ 					
Affective Characteristics					
<ul style="list-style-type: none"> Student thoughtfully considers advice and criticism and adjusts behaviour appropriately. 					
<ul style="list-style-type: none"> Student demonstrates a reasonable level of social and emotional maturity. 					
<ul style="list-style-type: none"> Student has good interpersonal skills with age mates, as well as with both older and younger students. 					
<ul style="list-style-type: none"> Student has good interpersonal relationship with the majority of teachers in school. 					
<ul style="list-style-type: none"> Student is able to take responsibility for his/her successes and failures 					
<ul style="list-style-type: none"> Other: _____ 					
Participation in co-curricular activities					
<ul style="list-style-type: none"> Student actively participates in one or more co-curricular activities. 					
<ul style="list-style-type: none"> Student has a leadership role or has achieved recognition in one or more co-curricular activities. 					
<ul style="list-style-type: none"> Other: _____ 					
Growth and Physical Ability					
<ul style="list-style-type: none"> Student is of the average age for his/her present grade level 					
<ul style="list-style-type: none"> Student's physical maturity is in the similar level as students in his/her present grade. 					

Assessment Criteria	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure
Growth and Physical Ability					
• Student performs satisfactory physical ability as most students in his/her present grade do.					
• Other: _____					
School Policy and Support					
• School shows strong support for acceleration as a gifted education programme option.					
• School has extensive staffing, planning and discussion over the acceleration for the student.					
• Receiving teachers of the proposed grade to skip have adequate understanding of the student's needs and are ready to provide support					
• School can maintain effective home-school communication and cooperation with parents for monitoring and supporting grade-skipping					
• Other: _____					
Family Support					
• Parents are strongly supportive and committed to working with school in supporting grade-skipping of their child					
• The student's sibling is several grades above or below the student's current class level.					
• Parents can keep close communication with the child's for responding his/her emotional needs in coping with challenges					
• Other: _____					
Additional Remarks:					
Overall Comments:					

***Note: It is not recommendable to make IQ test score of student a compulsory criteria for assessing the student's suitability for academic acceleration.**

Sources of reference:

1. S. Assouline, N. Colangelo, A. Lupkowski-Shoplik, J. Lipscomb, L. Forstadt (2002). *Iowa Acceleration Scale Form*. Scottsdale, AZ : Great Potential Press.
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Appendix II

Types of Acceleration Options:

1. Early Admission to Kindergarten or First Grade	The student is admitted to kindergarten or first grade prior to the age specified by the government for normal entry.
2. Grade-skipping*	The student is moved ahead of normal grade placement. This may be done in mid-term (e.g. placing a P.3 student directly into P.4), or at year end (e.g. promoting a P.3 student to P.5).
3. International Baccalaureate (IB) Diploma Program (DP) *	Most IBDP courses offer pre-university curriculum that is recognised as equivalent to university/college-level courses, successful IB candidates are typically granted advanced placement credit at university.
4. Individualised Educational Plan (IEP) *	A written educational plan that addresses a student's specific individual needs. It may specify accommodations, materials, or classroom instructions to cater for the students with special learning needs including the gifted.
5. Subject Skipping *	The student is placed with classes with students at more advanced grade levels for a part of the day (or with materials from higher grade level) in one or more subjects.
6. Combined Classes	The student is placed in classes where two or more grade levels are combined (e.g., P.3 and P.5 split rooms). The arrangement can allow younger children to interact academically and socially with older peers.
7. Curriculum Compacting*	The student is given reduced amount of introductory activities, drill and practice. The time gained may be used for more advanced content instruction or to participate in enrichment activities.
8. Telescoping Curriculum	The student is provided instruction that entails less time than is normal. The time saved from telescoping always results in advanced class level placement.

9. Mentoring*	The student is paired with a mentor or expert tutor who provides advanced training and experiences in a content area.
10. Co-curricular programmes*	The student is enrolled in coursework or after school or summer programmes that confers advanced instruction and/or credit.
11. Correspondence Courses*	The student enrolls in coursework delivered outside of normal school instruction. Instruction may be delivered by different mechanisms such as internet or mail.
12. Early Graduation	The student graduates from senior secondary school or university in years less than normal. This is always accomplished by increasing the amount of coursework undertaken each year in school.
13. Concurrent Enrollment #	The student takes a course at one level and receives credit upon successful completion for a parallel course at a higher level.
14. Advanced Placement	The student takes a course that can confer university credit upon satisfactory performance.
15. Credit by Examination	The student receives university credit by successful completion of an examination.

* Examples can be found in Hong Kong.

Most likely to be developed in Hong Kong.

Appendix III

Major findings of survey and interviews of local schools' perception and understanding on acceleration:

Dimensions	Major Findings
Perception on acceleration	<ul style="list-style-type: none"> • Schools admitted that acceleration is an effective way to cater for the great ability and fast learning pace of highly able students • Teachers found acceleration broadens the students' learning experiences and reinforces their self-directed learning ability
School administrative arrangement	<p><i>Time and Year-level of Implementation</i></p> <ul style="list-style-type: none"> ◆ School claimed that grade-skipping would be best implemented in the early stage, say P.1 to P.3 in primary schools, of students' study ◆ It was deemed that the beginning of a new school year would be a natural transition point to start acceleration programme. While, it is common to find grade-skipping cases in the mid-term of a school year. In such cases, teachers could have thorough observation and assessment on learning needs of the potential accelerant before making the decision. <p><i>Resource commitment</i></p> <ul style="list-style-type: none"> ◆ It was recommended to allocate resources to match up with the school-based acceleration measures. Resource center for gifted education could be an option

Dimensions	Major Findings
School administrative arrangement (cont')	<p><i>Support for teachers</i></p> <ul style="list-style-type: none"> ◆ Principals suggested a school-based guideline about the general arrangement and curriculum of accelerated learning should be provided for teachers ◆ Teachers admitted that their knowledge on the assessment of more able students for acceleration should be strengthened ◆ Principals stressed that teachers should be involved in the thorough discussion on acceleration policy and the relevant arrangement ◆ Schools mostly counted the time teachers spent on acceleration programme as part of their teaching load ◆ Schools suggested lesson co-planning sessions could be arranged for teachers to prepare for the acceleration programme <p><i>Selection of Students for acceleration</i></p> <ul style="list-style-type: none"> ◆ Schools emphasized a student only benefits from acceleration if s/he is selected carefully by school for acceleration programme ◆ Acceleration, especially in the form of grade-skipping, of any more able student was deemed to be a collaborative decision which involves in-depth discussion among educational psychologist (if any), school counselor, social worker, present and receiving

Dimensions	Major Findings
School administrative arrangement (cont')	<p>teachers and parents</p> <ul style="list-style-type: none"> ◆ Besides academic ability, schools alerted that the social-emotional skill and maturity of the potential accelerated students should be in a level that enables them to maintain harmonious relationship with students in higher grades ◆ Teachers remarked that potential accelerants should be equipped with reasonable foundation knowledge before they accelerate to a higher level ◆ Schools considered deliberately student's own concern on acceleration arrangement. ◆ Use of Checklist for Assessing Suitability of Grade-skipping: <ul style="list-style-type: none"> ☆ It is a useful and effective tool to be used in discussion on strengths and potential difficulties for a student being considered for acceleration ☆ It brings comprehensive and objective data to the discussion that promote the reliability of the results ☆ The scale has proven to be a valid and reliable assessment tool after trial use
Curriculum design	<p><i>Content and organisation</i></p> <ul style="list-style-type: none"> ◆ Teachers pointed out that teaching materials of accelerated programme should be adapted to a level that meets the needs of more able students and it should allow students to self-monitor on their learning progress

Dimensions	Major Findings
Curriculum design (cont')	<ul style="list-style-type: none"> ◆ Schools included different learning experiences in the accelerated curriculum design ◆ Some teachers arranged self-directed learning sessions with teachers' guidance for accelerated students as a programme option ◆ Schools deemed that they need more information on the curriculum design for accelerated programme <p><i>Curriculum evaluation</i></p> <ul style="list-style-type: none"> ◆ Schools carried out continuous assessment on the effectiveness of acceleration programme in the on-going process to ensure its quality
Learning outcomes	<ul style="list-style-type: none"> • Schools found accelerated students who have good grasp of foundation knowledge are highly motivated to meet the challenges in the accelerated programme • Schools found accelerated students are more motivated to learn as their distinctive ability can be further excelled • The confidence and interest in learning of accelerated students were also found to be improved • Accelerated students were found to perform excellently in their academic achievements • Teachers observed that high-ability students' social skills, self-image and self-confidence have been remarkably improved after joining acceleration programme • The deviant behaviour resulting from the mismatch

Dimensions	Major Findings
Learning outcomes (cont')	<p>between the learning ability of the more able students and the curriculum were found to be rectified by acceleration programme</p> <ul style="list-style-type: none"> • Accelerated students seemed to enjoy their harmonious relationship with the classmates in the acceleration programme • Most school got use of school internal assessment could be used to evaluate if accelerated students are able to cope with the challenge
Special support for accelerated students (grade-skipping)	<ul style="list-style-type: none"> • Some schools suggested an escape clause for the grade-skipping students. Students should be allowed to return to normal grades if they fail to cope with the new challenge • It is recommended that grade-skipping students would better be allocated in a class with smaller class size so that teachers could have better care on them • Schools reminded that there should be sufficient academic and affective support for accelerated students to ensure positive impacts on them • It is found that a close monitor on the adaptation of the accelerants following by corresponding academic, social and emotional supports is the key of success. • Schools claimed that there should be good communication between school and parents. Both parties could meet regularly to report and discuss on the

Dimensions	Major Findings
<p>Special support for accelerated students (grade-skipping) (cont')</p>	<p>performance of the accelerant such as their learning motivation, academic performance, difficulties to cope with challenge and interaction with new peer group</p> <ul style="list-style-type: none"> • Teachers emphasized that parents should be reminded to keep close monitoring on their children’s academic and emotional needs in coping with challenges and offer appropriate supports such as providing supplementary learning experience to fill the knowledge gap that may be caused by grade-skipping and sharing their feelings on the grade-skipping • Acceleration was found to be an option for primary students who are able to move ahead to secondary level. Such cases could be found in through-train school that administrative hurdles about secondary schools places allocation system were overcome.

Appendix IV

Timetables facilitating subject-skipping for a P.3 student who takes P.5 Mathematics in regular lessons:

Timetable of P.3

Monday	Tuesday	Wednesday	Thursday	Friday
General Studies	Visual Art	Mathematics	Chinese Language	General Studies
Mathematics	Visual Art	General Studies	Chinese Language	English Language
Recess				
Chinese Language	Chinese Language	English Language	Computer Studies	Chinese Language
Moral Education	Chinese Language	English Language	P.E.	Mathematics
Lunch				
Music	English Language	Chinese Language	Mathematics	Drama
English Language	P.E.	Chinese Language	English Language	Multiple Intelligence

Timetable of P.5

Monday	Tuesday	Wednesday	Thursday	Friday
English Language	English Language	Mathematics	English Language	English Language
Mathematics	Drama	English Language	Music	Computer Studies
Recess				
Chinese Language	General Studies	Chinese Language	General Studies	Chinese Language
English Language	Chinese Language	Chinese Language	Chinese Language	Mathematics
Lunch				
Visual Art	Chinese Language	General Studies	Mathematics	Moral Education
Visual Art	P.E.	General Studies	P.E.	Multiple Intelligence

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