For discussion on 15 July 2015

Legislative Council Panel on Education

New Academic Structure Medium-term Review Progress: Senior Secondary Curriculum and Assessment

Purpose

The New Academic Structure (NAS) Medium-term Review was completed in June 2015. This paper reports to Members on the NAS Review recommendations on the senior secondary curriculum and assessment and related systemic issues.

Background

2. The Education Bureau (EDB) and the Hong Kong Examinations and Assessment Authority (HKEAA) reported to Members on the progress of the NAS Review on 12 November 2012, 30 May 2013 and 9 June 2014. The objectives, principles and scope of the Review are summarised as follows:

Objectives of Review

3. The NAS is part and parcel of the education reform. To enable students to achieve the aims of life-long learning and whole-person development, all students are entitled to 12 years of free education. A broad and balanced curriculum for secondary education with diversified choices is provided for students to cater for individual needs. Students take the Hong Kong Diploma of Secondary Education (HKDSE) Examination after completing the senior secondary curriculum, and continue their multiple pathways to further education or employment. Upon the completion of the first cycle of the senior secondary curriculum in 2012, the Curriculum Development Council (CDC), the HKEAA and the EDB launched the NAS Review, through which to address schools' concerns on the implementation of the senior secondary curriculum, and to macro changes in economic, scientific and technological respond to

developments in Hong Kong and even the world so that the senior secondary curriculum can keep abreast of the times.

Guiding Principles

4. The NAS Review centres around the best interest of student learning and adopts the following professional principles:

- (i) Gear all curricula towards achieving the overall learning goals for secondary education;
- (ii) Keep abreast of the latest changes in the disciplines of knowledge, economic, social, technological contexts, etc. with regular international benchmarking and recognition;
- (iii) Strike a balance between the breadth and depth in knowledge, skills, positive values and attitudes in school curricula appropriate to secondary education and interface with further studies;
- (iv) Cater for student diversity and build on strengths (e.g. personal effort, subject interest and teaching method are recognised by most students as the most important factors for success in senior secondary education);
- (v) Consider factors and concerns regarding curriculum implementation (e.g. workload of students and teachers, support to teachers and schools);
- (vi) Align assessment with curriculum aims, learning objectives, curriculum design and expected learning outcomes (including positive and negative washback effects); and
- (vii) Engage different stakeholders and consider the feedback collected from different sources to inform deliberations.

Review Scope

5. We have collected from stakeholders such as schools, tertiary institutions and employers massive data and information including the implementation of the senior secondary curriculum, student learning outcomes, articulation to further studies and employment, international benchmarking and recognition. The Review started out from the five broad areas listed below:

- (i) Are the learning goals of the senior secondary curriculum under the NAS achieved? Is there any deviation from the original intention?
- (ii) Can schools provide a broad, balanced and diversified student programme

with choices? How is the implementation progress?

- (iii) How is the implementation of the curriculum, public assessment and School-based Assessment (SBA)?
- (iv) How well are the senior secondary curriculum, the HKDSE Examination and Student Learning Profile (SLP) accepted? Is the articulation to further studies and employment smooth? What are their impacts on students' further studies and employment?
- (v) What are schools' latest needs and concerns in the implementation of the NAS? How about the workload of teachers and students? How could it be adjusted to cater for schools' needs better?

Review Process and Method

6. In light of the broad scope of the NAS Review, the Review was conducted by stages. Considering the school sector's imminent concern on the workload of teachers and students, short-term measures were announced in April 2013 to allow more flexibility in lesson time, to clarify the breadth and depth of the curriculum, to streamline SBA as well as HKDSE Examination arrangements etc. so that students and teachers could benefit as soon as possible.

7. The Medium-term Review covering the review scope mentioned in paragraph 5 above was launched in 2 stages in 2014 and 2015 respectively. With a comprehensive consultation plan, we had ample time to collect data and feedback from different stakeholder groups through multiple channels such as regular liaison groups, meetings, briefings, focus group/individual interviews, surveys and written submissions. Schools, post-secondary institutions, University Grants Committee (UGC)-funded institutions, employers, parents, students, professional associations, education bodies and non-government organisations were extensively engaged and their views sought.

8. Up to May 2015 in the short-term and medium-term stages of the Review, views had been collected through about 48 000 person-times interviews in nearly 1 700 events, and more than 62 000 person-times consultations had also been conducted in over 100 surveys. In addition, written submissions from different stakeholders had been received. In parallel, relevant CDC and HKEAA committees had convened over 500 meetings during the Review stages.

NAS Implementation Progress

9. The NAS Review is evidence-based and reliable information concerning the learning goals, implementation progress (including the effect of the short-term measures on workload), impact on students as well as recognition and articulation to multiple pathways has been collected, showing the achievement and impact of the NAS (see paragraphs 10-15) and schools' concerns (see paragraphs 16-18).

Achievement and Impact of NAS

10. We have conducted different surveys and collected stakeholders' views on the NAS through various channels. The findings are positive and summarised below:

Achievement of Curriculum Objectives through the Senior Secondary Curriculum

11. Survey data¹ indicated that a majority of school principals (78-99%) viewed that students in general performed well on the 7 learning goals. A school survey on the NAS Medium-term Review and Beyond was conducted in November 2014. 472 secondary schools responded. There was general agreement (90%) that the 7 learning goals remained important in the coming 10 years; school principals indicated that the senior secondary curriculum could achieve the aims of equipping students with sufficient knowledge to thrive in the 21st century, providing students with broad and balanced learning experiences and a wide and reasonable range of subject choices, developing students' learning to learn capabilities and facilitating students' life-long learning and whole-person development.

Review Measures Useful to Schools, Smoothening Delivery of NAS

12. Encouraging feedback was received from schools to validate the positive impacts of the short-term and the first batch of medium-term measures. Schools indicated that the measures on streamlining/clarifying curriculum contents and streamlining SBA could not only enhance learning and teaching effectiveness but also reduce the workload of teachers and students.

¹ Source: *Senior Secondary Curriculum Implementation Survey* conducted on 100 secondary schools in 2013.

13. In a survey² on senior secondary graduates pursuing further studies in post-secondary institutions, over two-thirds of the respondents reported that the senior secondary subjects studied had helped to strengthen their competences in various aspects including thinking from multiple perspectives, awareness of society, critical thinking, reasoning and language skills, and that SBA had improved their analytical, information organisation and research skills. Some of the graduates had entered the world of work, and over 90% of employers³ indicated that the performance of secondary school graduates under the NAS had generally met or exceeded the job requirements.

Articulation to Multiple Pathways – Over 85% of Students Furthering Studies

14. Findings from a survey⁴ revealed that 69% of school principals agreed that the existing pathways (including vocational education programmes for early exits) could meet the needs of students. This is supported by findings from another survey⁵ on S6 graduates in 2014, where over 76% of graduates continued to pursue further studies locally (including degree, sub-degree and other full-time courses / programmes) and 10% abroad, while 8% took up full time employment.

Increase in Subject Combinations, Diversification of Student Choices

15. Annual survey data⁶ showed that at school level, each school on average offers about 11 elective subjects for senior secondary students with about 40 subject combinations at each of S4, S5 and S6. At student level, the majority (over 85%) of students took 2 or 3 elective subjects as recommended, with about 1 000 subject combinations for each of S4, S5 and S6. The Survey ⁶ also indicated that students' subject choices are not limited to a particular Key Learning Area (KLA). In the 2014/15 school year, 67% of S4 students, 66% of S5 students and 57% of S6 students take elective subjects from two or more KLAs. These reflected that schools' offer of as well as students' choices of

² Source: Survey on the experience of the senior secondary students under the New Academic Structure (2014): Impact of New Senior Secondary curriculum on their first year experience of further Studies in Hong Kong conducted in 2014 on 8 UGC-funded and 23 self-financing post-secondary institutions.

³ Source: Survey on Opinions of Employers: New Senior Secondary Graduates (2014).

⁴ Source: *New Academic Structure Medium-term Review and Beyond School Survey* conducted on 472 secondary schools in November 2014.

⁵ Source: *Secondary 6 Students' Pathway Survey* conducted on 461 secondary schools in 2014.

⁶ Source: Survey on Senior Secondary Subject Information conducted on 450 secondary schools in 2014.

elective subjects were diversified.

Schools' Main Concerns

Workload of Teachers and Students

16. There is teachers' feedback related to workload arising from preparing for and teaching senior secondary subject curricula, supervising students' completion of SBA assignments, and catering for learner diversity (such as non-Chinese speaking (NCS) students). There is also a certain amount of workload for students on completing SBA assignments of different subjects.

Whole-school Curriculum Framework and Catering for Learner Diversity

17. Whether the existing curriculum framework (i.e. 4 core subjects + 2 or 3 elective subjects + Other Learning Experiences (OLE)) is broad and balanced and able to cater for learner diversity is another topic of concern. Survey data indicated the drop in the percentage of students taking three elective subjects, which might limit students' opportunities to pursue their interests and stretch their potential. There are also other views that the senior secondary curriculum is too broad for lower achieving students; the requirement of taking 4 core subjects is too demanding, thus hindering students from taking more elective subjects.

Public Assessment

18. There were concerns about alignment of public assessment with the subject curricula, the quality assurance of HKDSE subjects, the use of feedback on examinations to improve learning and teaching as well as existence of check and balance. There were also views on grading in the public assessment that Level 5** of Category A subjects be abolished to avoid students over-concentrating on the pursuit of top results, and that an additional level of results at the higher end be explored for Category B subjects. There were also views that SBA had generated a great amount of workload for both students and teachers, and requests were voiced to streamline or even abolish SBA.

Review Recommendations

19. We have reported the progress of the NAS implementation and the school sector's concerns to the CDC and the HKEAA Public Examinations Board. We also regularly report the review progress to and seek advice from the Education Commission and the Legislative Council Panel on Education.

20. Deliberations will be made in the best interest of student learning, balancing different perspectives and addressing concerns of the school sector while maintaining international benchmarking and recognition. The first batch of recommendations was already announced in April 2014, and the last batch in June 2015. The NAS Review recommendations on the curriculum and assessment made at different stages are summarised as follows (see Annexes 1 and 2 for details):

Learning Goals

21. The 7 learning goals of the senior secondary curriculum are a consensus of the school community. Yet, in view of the changing world and society, the learning goals would be revised to change with the times.

Broad and Balanced Student Programmes with Diversification

22. The total lesson time for the three-year senior secondary curriculum would be adjusted from 2 700 to 2 400 \pm 200 hours, giving schools flexibility while ensuring international recognition. The emphasis of OLE would be placed on quality rather than quantity. The total lesson time for OLE would be adjusted from 15-35% to 10-15%. Student Learning Profile (SLP) would be streamlined while maintaining the importance of viewing SLP as a reflection tool for self-development.

23. To stabilise the ecology of schools, and to facilitate more effective learning and teaching, and a smooth interface between the curriculum and multiple pathways, the existing senior secondary curriculum framework (i.e. 4 core subjects + 2 or 3 elective subjects + OLE) and the current framework of Category A, B and C subjects (see the subject list in Annex 3) would be maintained. Converting Combined Science to "half subject" is not recommended.

24. In the context of maintaining the senior secondary curriculum framework, senior secondary students, especially those of high ability, would be encouraged to take 3 elective subjects (a maximum of 4 elective subjects⁷) to help broaden the knowledge base so as to allow more space and flexibility to explore their interests, to find out the pathways to further studies and career development and to realise their potential to the full. Students who have an interest in furthering vocational education might consider taking more Applied Learning (ApL) courses.

25. ApL courses, including ApL Chinese (for non-Chinese speaking students), help cater for learner diversity. Out of 40 ApL courses, 12 have been linked to the Qualifications Framework (QF); and the linking of more courses to the QF would be explored. The piloting of early course commencement at S4 began in the 2014/15 school year to enhance the choice and flexibility of student learning.

Curriculum and Assessment

26. The curricula of 24 senior secondary subjects have been updated or fine-tuned and/or their breadth and depth clarified. SBA has been trimmed and would be implemented in 14 of the 24 Category A subjects. Among the 24 senior secondary subjects, the public examinations of 17 subjects would be fine-tuned, e.g. by adjusting the weighting or examination time, increasing the question types or combining the examination papers.

27. The grading of Category A subjects would be maintained, i.e. levels 1, 2, 3, 4, 5, 5*, 5**, to facilitate admissions consideration by local and overseas tertiary institutions. The reporting of students' performance in ApL subjects would be further refined from the existing two levels of "Attained" and "Attained with Distinction" to "Attained", "Attained with Distinction (I)" and "Attained with Distinction (II)". "Attained with Distinction (I)" would be comparable to level 3 while "Attained with Distinction (II)" would be comparable to level 4 or above of the Category A subjects of the HKDSE

⁷ A small number of students with high ability and extensive interests may, in addition to 4 core and 3 elective subjects, select the 4th elective subject from Visual Arts, Music, Physical Education, Ethics and Religious Studies, Applied Learning subjects and Other Language subjects to align with the overall objectives of Other Learning Experiences. As announced by the HKEAA in as early as 2009, candidates may take up to a maximum of 8 subjects in the HKDSE Examination, i.e. 4 core and 4 elective subjects (the 4th elective subject must come from the aforesaid subjects).

Examination, effective from the 2018 HKDSE Examination.

Interface with Life-long Learning (Including Studies and Employment)

28. To ensure a smooth interface between senior secondary education and higher education, communication with the post-secondary sector would be strengthened to encourage them to provide more diverse and clearer specifications for student admissions, e.g. to consider Best 5 or Best 6 subject results when students have attained the minimum entrance requirements of 3322+2; to seek recognition of Module 1 / Module 2 of the Mathematics Extended Part as well as ApL courses; schools are also encouraged to make an optimal use of the current "exit and re-entry" mechanism to provide different courses which accommodate students' diverse abilities and interests.

29. Students are encouraged to make an optimal use of the "exit and re-entry" mechanism under the NAS for career and life planning according to their interests. The EDB would continue to disseminate the message that admission to university degree programmes is not the only route towards success. Besides, the EDB will work with parents and employers to promote the acceptance of Applied Learning and vocational related studies.

Way Forward

30. The NAS Review report will be announced in the 4th quarter of 2015 summarising the findings of the Review and enabling the public to understand the latest developments of the NAS.

31. The regular liaison meetings on the NAS and reports to different stakeholders (e.g. the Education Commission, the UGC, the Federation of Self-financing Tertiary Education, school council representatives, employers and parents) would continue to be used as valuable platforms for collecting feedback. The EDB would continue to study the implementation of the senior secondary curriculum and assessment and the impacts on students, and monitor the smooth implementation of the NAS.

32. The EDB and the HKEAA would continue to provide follow-up support measures (see Annex 4 for details) to help schools cater for learner diversity and build up the professional capacity of school leaders, middle managers and

teachers to improve the implementation of the NAS.

33. Upon the completion of the Medium-term Review, all senior secondary subjects would be reviewed and improved on a regular basis taking into consideration their regular curriculum and assessment development cycle, and moving towards continual renewal under the "Learning to Learn 2.0" to keep abreast of the times and nurture a talent pool for our society.

Advice Sought

34. Members are invited to note the progress of the NAS Medium-term Review and give their views on the way forward.

Education Bureau Hong Kong Examinations and Assessment Authority July 2015

New Academic Structure Review Summary of Recommendations on Curriculum and Assessment

Review Recommendations / Date of Announcement	Curriculum	Assessment	Support Measures
Short-term 30.4.2013	 Trimmed/ streamlined/ updated the curricula of 14 subjects Adopt a flexible range of total lesson time at 2 400 ± 200 hours Allocate a flexible 10-15% of total lesson time to Other Learning Experiences (OLE) Streamlining arrangements in Student Learning Profile (SLP) 	 Not implement School-based Assessment (SBA) in 3 subjects; and streamline SBA in 19 subjects Streamline public examination arrangements in 14 subjects 	 Provide timely information on further study options for students with different levels of attainment Provide support to schools, including professional development programmes, supplementary notes, exemplars, learning and teaching materials and information sheets on curriculum and assessment for 24 subjects (S4 to S6 student version)
Medium-term (1 st Batch) 15.4.2014	Revising arrangement of set texts in 2 subjects	• Further streamline SBA in 1 subject	 Professional development programmes continued to be provided More learning networks and circles to be set up among teachers and schools More learning and teaching resources, exemplars, samples as well as reference materials to be provided Sample questions and sample examination papers to be provided as appropriate Communication and

Review Recommendations / Date of Announcement	Curriculum	Assessment	Support Measures
Medium-term (Last Batch Part 1) 17.4.2015	• Corresponding changing arrangements in curriculum accordance with the change to SBA in 3 subjects	 Maintain the grading structure of Category A subjects, i.e. levels 1, 2, 3, 4, 5, 5*, 5**, to facilitate admissions consideration by local and overseas tertiary institutions Not implement SBA in 7 subjects; and further streamline SBA in 3 subjects Revision on public examination arrangements in Applied Learning and 11 subjects Refinement of the reporting of students' performance in Applied Learning subjects 	 interaction with relevant stakeholders such as meetings and conferences to be stepped up to collect more feedback and views to inform further development Good practices in curriculum planning, learning and teaching and assessment strategies to be collected and shared with schools and teachers Professional development programmes continued to be provided Dissemination of important information to relevant stakeholders to be continued
Medium-term (Last Batch Part 2) 29.6.2015	 Maintain the existing 7 learning goals of senior secondary Maintain the senior secondary curriculum and subject structure 	• Conduct international benchmarking on the assessment in a timely manner	 Professional development programmes continued to be provided Dissemination of important

Review Recommendations / Date of Announcement	Curriculum	Assessment	Support Measures
	• According to the results of extended consultations on 4 subjects to make appropriate amendments (if applicable)		 information to relevant stakeholders to be continued Update of 24 SS subjects Curriculum and Assessment Guide (completed by end of 2015) Update of each KLA Curriculum Guide (completed by early 2016)

New Academic Structure Review Summary of Recommendations on School-based Assessment

Key Learning A	Area (KLA) / Subject	SBA	Arrangement
Core Subjects			
Chinese Language		~	• Continue to implement SBA with the existing arrangement
English Language		✓	Same as above
Mathematics		NA	Not implement SBA
Liberal Studies		~	Continue to implement SBA with the existing arrangement
Elective Subjects			
Chinese Language Education KLA	Chinese Literature	✓ 	 Further streamline SBA for implementation: Keep the writing task in the Compulsory Module and submit 3 marks comprising 15% of the subject mark; cancel the mark submission for the Elective Module (at S4 in 2016/17; effective from 2019 HKDSE Examination)
English Language Education KLA	Literature in English	~	• Implement SBA (at S4 in 2016/17; effective from 2019 HKDSE Examination)
Personal, Social and Humanities	Chinese History	NA	• Not implement SBA* (at S4 in 2015/16; effective from 2018 HKDSE Examination)
Education KLA	History	NA	Same as above
	Economics	NA	• Not implement SBA* (at S4 in 2016/17; effective from 2019 HKDSE Examination)
	Ethics and Religious Studies	NA	Same as above
	Geography	NA	Same as above
	Tourism and Hospitality Studies	NA	Same as above
Science Education KLA	Biology	~	• Continue to implement SBA with the existing arrangement
	Chemistry	✓	Same as above
	Physics	✓	Same as above
	Science (Combined Science / Integrated Science)	•	Same as above
Technology Education KLA	Business, Accounting and Financial Studies	NA	Not implement SBA
	Design and Applied Technology	•	• Continue to implement SBA with the existing arrangement
	Health Management and	✓	• Further streamline SBA for implementation:

Key Learning A	rea (KLA) / Subject	SBA	Arrangement
	Social Care Information and Communication Technology	SDA ✓	 Keep only ONE SBA task (Field Learning Task, i.e. SBA1); Project for Elective (SBA2) to be deleted; weighting to be reduced from 30% to 20% (at S4 in 2016/17; effective from 2019 HKDSE Examination) Further streamline SBA for implementation: Project assignment to be replaced with guided tasks; the guided tasks focus on two assessment categories, namely 'Design & Implementation' and 'Testing & Evaluation' instead of four assessment categories; students are required to do the guided tasks during class hours and submit their work by two stages (at S4 in 2015/16; effective from 2018 HKDSE Examination)
	Technology and Living	1	 Implement SBA (at S4 in 2016/17; effective from 2019 HKDSE Examination)
Arts Education KLA	Music	NA	• Not implement SBA (relevant skills continued to be assessed in the form of a practical exam)
	Visual Arts	~	Continue to implement SBA with the existing arrangement
Physical Education KLA	Physical Education	NA	• Not implement SBA (relevant skills continued to be assessed in the form of a practical exam)

* Relevant knowledge and skills to be assessed in the public examination as necessary.

Senior Secondary Curriculum Summary of Categories A, B and C Subjects

Category	Subjects
A	Core Subjects: Chinese Language, English Language, Mathematics, Liberal Studies
	<u>Elective Subjects:</u> Chinese Literature, Literature in English, Chinese History, Economics, Ethics and Religious Studies, Geography, History, Tourism and Hospitality Studies, Biology, Chemistry, Physics, Science (Combined Science / Integrated Science), "Business, Accounting and Financial Studies", Design and Applied Technology, Health Management and Social Care, Information and Communication Technology, Technology and Living, Music, Visual Arts, Physical Education
В	 Applied Learning (six areas of studies) : Creative Studies Media and Communication Business, Management and Law Services Applied Science Engineering and Production
С	Other Languages: French German Hindi Japanese Spanish Urdu

New Academic Structure Review Supporting Measures that Help Reduce Teacher Workload

Area	Measure	Expected Outcomes
Curriculum	24 subjects (e.g. updated, fine-tuned and /clarified breadth and depth of the curriculum contents)	Reduce workload for teachers and students
School-based Assessment (SBA)	Among 24 SS subjects, streamlined SBA and implement in 14 subjects	Reduce workload for teachers and students
Public Examination	17 subjects (e.g. adjusted exam weighting or time, more question types or merged questions, etc.)	Cater for learner diversity
Curriculum Resources	All subjects (e.g. supplementary notes, learning and teaching resources, exemplars, resource packs, EDB One-stop Portal for Learning and Teaching Resources)	Better support for teachers
Liberal Studies	Trimmed curriculum contents, streamlined IES, resource packs	Reduce workload for teachers and students, better support for teachers
Other Learning Experiences (OLE)	Revised total lesson time from 15-35% to 10-15% for schools' flexible planning; streamlined Student Learning Profile (SLP); streamlined Other Experiences and Achievements in Competitions / Activities (OEA) in JUPAS	Increased flexibility
Professional Development	All subjects (e.g. professional development programmes, seed projects / pilot schemes, teacher networks)	Enhance teacher capacity, better support for teachers
School-based Support	280 schools in 2013/14, 317 schools in 2014/15 (e.g. on-site support, university-school partnership, Professional Development Schools, Quality Education Fund)	Enhance teacher capacity, better support for teachers
Information on Admissions	All schools (e.g. e-Navigator, Compass@715, dedicated webpage, E-APP)	Provide more information for teachers & students on pathways
Various Grants	All schools are provided with grants that support the implementation of the NAS (e.g. Senior Secondary Curriculum Support Grant, Diversity Learning Grant, Career and Life Planning Grant)	Provide financial support and flexibility for recruiting extra human resources to alleviate teachers' workload