

## **ITEM FOR FINANCE COMMITTEE**

### **HEAD 156 – GOVERNMENT SECRETARIAT : EDUCATION AND MANPOWER BUREAU**

#### **Subhead 700 General other non-recurrent**

#### **New Item “Grant to Support the Assessment Development and Research Activities of the Hong Kong Examinations and Assessment Authority”**

Members are invited to approve a new commitment of \$136.7 million for providing a one-off grant to support the assessment development and research activities of the Hong Kong Examinations and Assessment Authority.

#### **PROBLEM**

The Hong Kong Examination and Assessment Authority (HKEAA) does not have sufficient funds to carry out assessment development and research activities required to support the ongoing curriculum reform and to help teaching and learning.

#### **PROPOSAL**

2. The Secretary for Education and Manpower proposes to provide a one-off grant of \$136.7 million to the HKEAA to support its assessment development and research activities for about five years from now to 2009. The proposed period of five years is consistent with the normal time span of carrying out educational research and development. The activities cover public assessment reform to support the continuous development of the senior secondary curriculum, as well as the development, implementation and tracking of key initiatives like the standards-referencing of Hong Kong Certificate of Education Chinese and English Language examinations. The one-off grant increases HKEAA's assessment development and research capacity to facilitate and support the implementation of education reform initiatives and to further the development of public assessments.

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## JUSTIFICATION

### **The need for funding to support assessment development and research activities**

3. As the Curriculum Reform progresses, the gap between curriculum and assessment has widened. Moreover, the education sector has been demanding improvement of our public examinations, particularly the assessment of higher order thinking skills and other generic competencies like creativity of the students, which are essential qualities for feeding back into the teaching and learning cycle.

4. The need for improvement of our public examinations is also revealed in international comparative studies. As revealed in the “Programme for International Student Assessment” conducted by the Organisation for Economic Co-operation and Development (OECD) in 2002, the percentage of top achievers in reading literacy, which require analytical skills, was only at the OECD average. As revealed in the Summary Report for Hong Kong in the Trends in International Mathematics and Science Study (1996), while Hong Kong students ranked higher than average in performing routine procedures, they ranked lower than average in using complex procedures, which required more analytical skills. These research results exemplify the need to improve our public examinations through introducing more diversified assessment modes.

5. In addition, the existing public assessments and examinations activities are insufficient for assessing the effectiveness of teaching and learning in schools. There are minimal assessment development and research activities which aim to identify the issues, position where we stand, assess the alternatives ahead and simulate the impact of different scenarios of changes. There lacks an overall long-term direction for compiling statistics and conducting research to support the assessment development and policy formulation work of the HKEAA and Education and Manpower Bureau (EMB) respectively.

6. The HKEAA has recognized the need to strengthen its assessment development and research capacity. However, it is unable to absorb the funding requirement from within its existing resources which come mainly from fees charged for two public examinations (Hong Kong Certificate of Education Examination (HKCEE) and Hong Kong Advanced Level Examination (HKALE)). With examination fees frozen for the sixth consecutive year in 2004, HKEAA has been incurring a loss on the two public examinations. The current income stream of the HKEAA can only cater for its existing activities, and is unable to support additional research and development tasks.

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**Scope of assessment development and research activities**

7. With the proposed funding, the HKEAA proposes to conduct the assessment development and research activities categorized as follows –

- (a) Assessment development;
- (b) Use of technology to improve public examinations;
- (c) Long-term regular guarding and comparison of students' standards/performance; and
- (d) Strengthening support to teachers.

**(A) Assessment development**

8. The public examinations, especially the HKCEE which impacts annual cohorts of over 120 000 candidates, need to be modernized to support the all-round development of students, to change the prevailing examination-driven learning culture in school, to bridge the gap between examinations and the senior secondary curriculum under continuous development, and to take in new and appropriate assessment approaches. There is a pressing need to revamp our public examination and assessment system and the process should start now, regardless of the Government's coming consultation on a new academic structure (three-year junior secondary, three-year senior secondary and four-year undergraduate) recommended by the Education Commission. In due course when a decision is taken on the academic structure, the HKEAA could accommodate the necessary changes in its work on assessment development, allowing for a lead time for preparation before implementation.

9. A summary of the assessment development and research activities is set out below –

- (a) Establishing clear grading standards of public examinations

Objectives –

- (i) To enable judgement to be made about the degree to which student learning outcomes are meeting the expectations of the society, so that standards can be monitored more readily over time, avoiding any grading inflation or deflation which might occur due to the varying achievements of different cohorts under the current norm-referencing grading approach.

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- (ii) To provide students and their parents, teachers and schools, employers and education institutions with clear information of what students know and can do in different domains.
- (iii) To define clear standards which can assist students and teachers in the learning process and can help direct teaching towards identified weaknesses.
- (iv) To establish internationally recognized standards.

Deliverables –

Encl. 1

- (i) A study of the various issues associated with the implementation of the standards-referencing (SR) approach, including the impact on teaching and learning, setting and marking of examinations, variation of students' standards across years, and validity of the level descriptors. Details are set out in Section A1 of Enclosure 1.
  - (ii) Development of internationally recognized standards.
  - (iii) Planning and review of implementation including the descriptors, exemplars, sample and examination papers, and grading starting from the 2007 HKCEE English and Chinese Language subjects.
  - (iv) Tracking and analysis of the impact of the SR approach and the trend of examination results.
- (b) Broadening the basis of assessment of the public examinations.

Objectives –

- (i) To explore diversified assessment methods, including application of school-based assessment (SBA), to match the learning targets, contents and processes of individual subjects which are undergoing continuous development, recognize life-long capabilities of students that are not easily assessed through written examination, reduce the pressure of one-off public examination, and foster a culture of ongoing assessment to motivate student learning and guide better teaching.

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- (ii) To assess generic competence such as communication skill, higher-order thinking, problem solving, and creativity in written examinations through more open-ended and varied question styles, which enable free expression of ideas and application of knowledge and skills to new contexts.

Deliverables –

- (i) A study of SBA and its introduction to selected subjects in the public examinations, as appropriate. The scope of the study includes the approaches and issues involved in developing and implementing SBA in the public examinations, and the impact on students' achievements and standards. Details are set out in Section A2 of Enclosure 1.
  - (ii) Development and implementation of SBA approach on HKCEE subjects (in particular the Chinese and English language subjects of HKCEE 2007) and the HKALE subjects.
  - (iii) Tracking and analysis of the impact of the new approach and the trend of examination results.
  - (iv) Helping test developers plan, create and then deliver assessments that allow examinees to demonstrate generic competencies like higher-order thinking skills.
  - (v) Development of innovative assessment types and formats to better align with the curriculum and the new development of cognitive psychology on learning styles, as well as to support and promote learning in schools. Details are set out in Section A3 of Enclosure 1.
- (c) Supporting the development of public examination subjects

Objective –

To review and update public examination subjects based on major curriculum changes.

Deliverable –

Development of new public examination subjects, examination subjects with major revision, and integration of existing examination subjects, including Curriculum and Assessment Guides and sample papers for these subjects, etc.

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- (d) Improving the reliability of marking and quality control processes

Objectives –

To enhance marking reliability and quality control of the marking process.

Deliverables –

A subject-based study of different marking conventions/schemes and the marking process for selected subjects. Details are set out in Section A4 of Enclosure 1.

### **(B) Use of technology to improve public examinations**

Objectives –

To improve the delivery and operation of public examinations through the use of information technology.

Deliverables –

- (i) A study on the feasibility of on-line marking of scripts and implementation of the initiative, if desirable, for a few subjects. Details are set out in Section B1 of Enclosure 1.
- (ii) A study on the feasibility of delivering public assessments on-line to meet the society's need. Details are set out in Section B2 of Enclosure 1.

### **(C) Long-term regular guarding and comparison of students' standards/performance**

Objectives –

- (i) To kick-start the tracking of students' standards/performance in public examinations and compare them across different domains like time, cities/countries (e.g. between Hong Kong and Mainland cities, between Hong Kong and other Southeast Asian cities) and other examinations (e.g. between HKEAA English Language examinations and TOEFL/IELTS<sup>Note</sup>).

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<sup>Note</sup> TOEFL is Test Of English as a Foreign Language. IELTS is International English Language Testing System.

- (ii) To identify rising or falling trends before and after any change in education policies and develop a strategy to maintain students' standards.

Deliverables –

- (i) Design of standard benchmarking tests for selected subjects. Details are set out in Section C1 of Enclosure 1.
- (ii) Studies to compare the performance of candidates in public examinations across years for selected subjects. Details are set out in Section C2 of Enclosure 1.
- (iii) Comparability study between local and overseas English language examinations. Details are set out in Section C3 of Enclosure 1.

#### **(D) Strengthening the support to teachers**

- (a) Identifying useful qualitative and quantitative feedback data for schools' reference

Objectives –

- (i) To provide the school sector with qualitative and quantitative feedback on students' performance in public examinations.
- (ii) To assess the viability of such services.

Deliverables –

Survey and pilot study on qualitative and quantitative feedback for schools. Details are set out in Section D1 of Enclosure 1.

- (b) To providing training programmes on assessment concepts and skills for teachers

Objectives –

- (i) To ensure that the internal assessment conducted in schools by teachers is generally in line with the requirements of public examinations.
- (ii) To support teachers in using assessment to enhance student learning.

/Deliverables .....

Deliverables –

Assessment training programmes for teachers. Details are set out in Section D2 of Enclosure 1.

## FINANCIAL IMPLICATIONS

10. The one-off grant of \$136.7 million will provide the HKEAA with the necessary funding for undertaking the assessment development and research activities explained in paragraph 9 above, as categorized below –

	Category	Estimated Cost (\$ million)
(A)	Assessment development	113.3
(B)	Use of technology to improve public examinations	8.7
(C)	Long-term regular guarding and comparison of students' standards and performance	11.0
(D)	Strengthening support to teachers	11.8
	Sub-total	144.8
	Less: Estimated interest to be generated from the grant.	(8.1)
	Amount of proposed grant	<b>136.7</b>

Encl. 2

Details of the cost estimates for the assessment development and research activities are set out in Enclosure 2.

11. As with the Language Fund and the Quality Education Fund which are based on a long-term vision to support specific education initiatives, we intend to provide a one-off grant to the HKEAA in order to support the assessment development and research activities. These activities should be planned with a long-term perspective to bridge the gap between assessment and curriculum, and to provide input to the setting of education policies and initiatives. As development and research projects have to proceed on a continuous basis and span across a few years, normally including a minimum of three years to start with, the making of a one-off grant will empower the HKEAA to make best use of the resources in planning and conducting the aforesaid activities. It will streamline procedures by removing the need for HKEAA to seek disbursements of funding along the way, without weakening government's monitoring and control through various means (paragraphs 14 to 17 below). We are satisfied that the HKEAA, being a statutory body overseeing a budget of about \$240 million a year, possesses the expertise and suitable governance structure to manage the fund.

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12. Subject to Members' approval, we will make a grant of \$136.7 million to HKEAA in 2003-04. Funds have been earmarked for this purpose under Head 156 Government Secretariat : Education and Manpower Bureau Subhead 000 Operational expenses. HKEAA will also be allowed to deploy interest income generated from the grant to meet the funding requirement of the assessment development and research activities. HKEAA will be required to return to the Government any funding that is surplus to requirement (paragraph 14 below).

13. The proposal has no recurrent financial implication to the Government.

### **MONITORING THE DELIVERY OF PROJECTS AND USAGE OF FUNDING**

14. Subject to Members' approval of the funding proposal, EMB will sign a Letter of Agreement with the HKEAA with details consistent with the proposal set out in this paper. The letter will specify the ambit of the assessment and research activities to be undertaken by HKEAA; the monitoring mechanism; and the requirements that the HKEAA has to keep separate accounts of the income and expenditure relating to the proposed one-off grant and return to the Government any surplus (including unused grant and interest generated) after the completion of the deliverables set out in the Letter of Agreement or at the end of the five-year period, whichever is earlier.

15. The monitoring work will be conducted under the existing governance structure of the HKEAA, which comprises the HKEAA Council and three committees/boards under it, namely the Finance and General Purposes Committee (F&GPC), the Research Committee and School Examinations Board (SEB). The Research Committee and the SEB will recommend the usage of the funding to the F&GPC in their respective areas. The F&GPC will in turn scrutinize, monitor and recommend to the Council for approval the usage of the funding.

16. The Council and F&GPC comprise Government officials and members from tertiary institutions, schools and the business sector, whereas the Research Committee and SEB comprise members from the tertiary and school sectors. Together they give a comprehensive composition for monitoring the project activities and the usage of the funding.

17. In respect of the Government's role of monitoring, EMB is represented on the Council, SEB and the two committees. HKEAA's annual estimates of income and expenditure and programme of its proposed activities are

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also by law subject to the approval of the Administration. EMB will be ultimately responsible for ensuring that the proposed grant will be used for the intended purposes. For transparency, we will inform this Committee of the progress of the use of the funding through annual reporting.

## **BACKGROUND INFORMATION**

18. The HKEAA is a statutory body established in May 1977 under the HKEAA Ordinance (Cap. 261). Its main statutory responsibility is to administer the HKCEE and the HKALE. It operates on a self-financing basis and is not receiving any recurrent subvention from the Government. The HKEAA is currently governed by a 27-member Council.

19. In support of the Education Reform and new educational initiatives and to keep pace with increasing demand and expectations from the public, the HKEAA Council, with the assistance of a consultant, conducted a strategic review to take a critical view of its functions and capability, identify the necessary changes that enable it to fulfill its roles and functions; and to develop short-term and long-term implementation plans for recommendations made. The consultant started the review in September 2002 and a final report was released to the public in May 2003. In the report, the consultant has pointed out the central observation that the HKEAA has operated within a limited Ordinance and with limited sources of revenue. The recommendations have taken into account stakeholders' views through workshops and focus groups. The Council supported the recommendations and had formed strategic groups to implement them. A key recommendation of the review is the need for the Government to provide development funding for HKEAA to deliver assessment development and research activities whilst maintaining its current examination and assessment responsibilities.

20. We consulted the Legislative Council Panel on Education on 15 December 2003. Members supported the need for strengthening HKEAA's assessment development and research activities and the direction of those activities. The Administration was asked to consider the need for making a one-off grant upfront and to provide more details of the assessment development and research activities and the cost estimates. The additional information requested has been included in this paper.

HKEAA's proposed assessment development and research projects  
for the period 2004-2008

**(A) Assessment development**

**(A1) Development and implementation of the standards-referencing approach in public examinations**

**Objective:** To identify and study the various issues of developing and implementing the standards-referencing (SR) approach in the public examinations; and to implement the approach.

**Justification:** The contexts and nomenclature of education standards vary from country to country. It is not desirable to simply apply overseas practices or definitions of standards to local public examinations and some research studies are necessary. We also have to simulate implementing SR in the Hong Kong context and assess the impact on the relationship between the learning outcomes (as specified in the senior secondary curriculum, based on which learning is recognised and assessed in public examinations) and the public examinations in particular. The project will compose of two parts.

Part I of the project, i.e. the research study, aims at -

- ▶ examining the relationship between the learning outcomes in the senior secondary curriculum and the public examinations under the SR approach
- ▶ studying the implications of the SR approach for question paper setting, marking, grading and reporting of results in the examination
- ▶ examining the issues in the development of the different grade bands/levels in the SR approach
- ▶ examining various standards-setting methods and suggest the approach for the public examinations.

Part II of the project, i.e. the development and implementation, aims at developing and implementing SR in the public examinations.

**Approach:** Part I will involve external consultants with experience in SR to -

- ▶ study the various implications and issues suggested in the aforementioned project aims
- ▶ carry out a pilot study, using one or two key subjects in the public examinations as examples, with the objective of proposing some general guidelines on examination paper setting, marking, grading (standards setting) and reporting of results.

The scope of Part I may be adjusted following the advice of the external consultants; whereas the scope of Part II in covering as many public examination subjects as appropriate will depend on the outcome of Part I.

**Timeframe:** Part I is expected to start in 2004, and will continue in parallel with Part II in the following five years covering as many public examination subjects as appropriate, which include the English and Chinese language subjects of the HKCEE in 2007.

## **(A2) Development and implementation of school-based assessment in the public examinations**

**Objective:** To study the approaches and issues of developing and implementing school-based assessment (SBA) in the public examinations; and to implement the SBA.

**Justifications:** Research-based evidence is essential to support appropriate and smooth extension of SBA to more public examination subjects. The project will compose of two parts.

Part I of the project, i.e. the research study, aims at -

- ▶ examine the current/past practices of SBA in the public examinations
- ▶ examine the supplementary and complementary approaches in the adoption of SBA
- ▶ study for individual subjects, the components in the curriculum that are to be assessed by SBA
- ▶ study the various modes of assessment for different types of SBA tasks/subjects
- ▶ examine the moderation issues of SBA (methods and concerns) for different kinds of assessment tasks/subjects
- ▶ study the implications of SBA on teaching and learning in schools
- ▶ study the relationship between internal assessment and public exam results

Part II of the project, i.e. the development and implementation, aims at developing and implementing SBA in the public examinations.

**Approach:** The project is likely to involve the following steps -

- ▶ a general review of the current/past practices of SBA in the public examinations
- ▶ external consultants to examine the general issues such as the supplementary and complementary approaches, the various modes of assessment in SBA and the moderation methods
- ▶ subject examiners/experts to study for individual subjects/groups of subjects, the components in the curriculum that are to be assessed by SBA and the mode of assessment to be used
- ▶ a study on the implications of SBA on teaching and learning in schools

**Timeframe:** The study is expected to start in 2004, and will continue for the following five years covering as many public examination subjects as appropriate.

**(A3) Studying and piloting new assessment methods in public examinations**

- Objective:** To pilot new assessment methods in public examinations which will best meet the curriculum requirements in the education reforms. It is hoped that the study will provide information for HKEAA to guide its deliberation on introducing new ways of assessment. In particular, it should yield information regarding –
- (a) the positive and negative washback effects of the present format of assessments;
  - (b) the new format of assessments best suited to the Hong Kong situation;
  - (c) the washback effects of the proposed new format of assessments;
  - (d) the extent to which those positive effects are realizable in the local context of high-stake testing situation;
  - (e) the reliability and validity of the new format of assessments;
  - (f) how well the security concerns could be addressed in the administration of these new formats of assessments
- Justification:** The emergence of generic skills in the curriculum reform such as collaborative skills, creativity, critical thinking skills, self-management skill and learning to learn skills creates a challenge for public examinations. To better align assessment with curriculum, innovative and motivating assessment models should be devised.
- Approach:** 4 subjects will be chosen for pilot testing: a language subject, a mathematics subject, an “arts” subject and a “science” subject. For each subject, the research will involve –
- (a) a survey of existing practices through interviews with teachers and students;
  - (b) a review of approaches to assessments other than what has now been used;
  - (c) development of new type and format of assessment that best fit the development of cognitive psychology on teaching and learning styles and the generic skills;
  - (d) a case study of selected schools implementing the new forms of assessments; examining the research questions identified in the objectives.
- Timeframe:** The study can start in 2004. The study, including the pilot testing, will take up to 2 years.

**(A4) Study of different marking conventions/schemes and the marking process to enhance marking reliability and quality control of the marking process**

**Objective:** To study alternatives to the current marking conventions and to review the marking schemes in selected subjects in the public examinations

**Justifications:** Over the past few years, the HKEAA has received various comments from schools, markers, local and overseas examiners on the marking conventions and marking schemes of different subjects.

Before a decision can be made to introduce any substantial changes to the marking convention or marking scheme, research studies are required to ensure that the new conventions/marketing schemes will enhance the reliability of the examination in practice.

The study will help the HKEAA identify ways to improve or revise the marking schemes/practices, with a view to enhancing marking reliability.

**Approach:** The study is subject-based. Priority should be given to subjects whose marking can be more responsive to different marking schemes (such as the marking of open-ended questions).

The study will likely involve the following steps -

- ▶ consultants to review the marking process with the objective of strengthening the quality control to enhance marking reliability
- ▶ examiners/subject experts to review the various alternatives and to suggest changes to the marking convention/schemes for pilot testing in the research
- ▶ past scripts to be remarked using the new convention/marketing scheme
- ▶ the results after remarking to be analysed and compared to the past results
- ▶ recommendations on changes to the marking schemes/conventions and the marking process, as appropriate, to be made

**Timeframe:** The study for each subject is estimated to take more than 6 months, including examiners' meetings and marking. The whole study of 6 subjects can start in 2004/05 school year and complete by 2007.

**(B) Using technology to improve public examinations**

**(B1) A pilot study on online marking of scripts**

**Objective:** To study the viability of online marking of scripts in Hong Kong

**Justification:** Public examinations should make use of technology to improve its operations where possible. E-marking is practised in many places in the world, including the US, Europe and some cities in Mainland China.

The merits of this approach are manifold -

- ▶ Efficient delivery of scripts to markers
- ▶ Real-time monitoring of markers' performance
- ▶ Allowing more prompt remedial action (erratic marking)
- ▶ Eliminating script movement between markers for papers with double-marking
- ▶ Minimising the script movement between markers and the HKEAA and therefore the exposure of losing scripts
- ▶ Expediting the core steps in the marking process
- ▶ When implemented on a more extensive scale, it might lead to earlier release of results

A global implementation of online marking for all subjects in the public examinations demands very high capital investments. It is therefore desirable to conduct a pilot study to check the technical viability, marker acceptability and to thrash out any major problems before a decision is made to move towards this new approach. There is also a need to carry out a research on marking differences, if any, between marking online and marking from scripts (e.g. visual acceptability).

**Approach:** A pilot exercise could be carried out using the CE English Language (Syllabus A) composition paper. Composition is chosen for its relatively simple process (marking essays by impression) which is ideal for online marking, and the fact that it involves two markers (double-marking; online marking will spare the swapping process). Syllabus A is chosen for its relatively small size (about 24 000).

The exercise involves setting up a web-based system whereby markers can retrieve scripts from the online system (scripts will be distributed randomly with full encryption, accessed only by authorized users with passwords) and mark each script from the computer screen and enter a mark directly onto the system. (As ready-made products are expensive, a small-scale system will be developed for the pilot exercise.)

The research study on marking differences involves inviting some markers (from the live examination) to mark a sample of scripts online and comparing these scores to the live results marked from the hardcopies of scripts. A survey can also be conducted to check markers' acceptability and readiness of schools/markers in terms of technical requirements.

**Timeframe:** The pilot study can start in 2004.

**(B2) Study of on-line delivery of public assessments**

**Objective:** To study the feasibility of delivering online large-scale public assessments

**Justification:** In times of Internet with the advent of sophisticated information technology, the community tends to question why public examinations are still held in pen-and-paper mode. Examinations seem to be lagging behind. However, there are critical issues which must be carefully addressed before this innovative mode of delivering large-scale public examinations could be considered, such as delivery platform, security, acceptability and cost-effectiveness. A feasibility study should be carried out taking into consideration overseas experience so that HK's public examinations could catch up with the world trend. Major changes such as this will take a long time to consider, plan and implement.

**Approach:** Consultants with suitable practical experience should be invited to carry out this feasibility study.

**Timeframe:** Tendering can start in 2005.

**(C) Long-term regular guarding and comparison of students' standards and performance**

**(C1) Introduction of standard benchmarking tests (selected subjects)**

**Objective:** To introduce tests on the fundamental/basic knowledge and skills of certain subjects (at CE or other specific level) which will be conducted every year so as to measure changes of students' standards between years.

**Justification:** The administration of tests using the same set of question papers conducted every year helps provide information on the monitoring of the students' standards over time. For some major subjects, it is desirable to conduct these tests to monitor students' standards over time other than their results in the public examinations every year.

**Approach:** The project involves the following -

- (a) development of tests (setting and moderation) for the purpose and conduct of pre-testing to ensure the effectiveness of the tests and to set a benchmark where applicable
- (b) administering the tests to sampled students each year
- (c) marking of answers (while objective questions should be set as far as possible to minimise marking differences, e.g. multiple choice items, it may be necessary to include some open-ended questions and some marking may be required)
- (d) analyzing the results of each test administration and comparing them to those of previous years or the benchmark

**Timeframe:** Standard benchmarking/reference tests are only useful when comparing standards against each other (e.g. against the first test administration which is used as the benchmark). The development of the tests and pre-testing could take place as early as 2004 and the tests would then be administered every year to sampled students from 2005 onwards.

**(C2) Studies to compare the performance of candidates in public examinations (selected subjects) across years**

**Objective:** To compare the candidates' performance in the same subject in the public examination between now and 5 or ten years ago, by remarking/re-evaluating the candidates' answers in past years' scripts.

**Justification:** These studies aim to provide some answers to questions of whether standards in certain subjects are falling or whether a certain grade is worth less now than in previous years.

**Approach:** The project involves the following -

- (a) examiners/subject experts to design the comparative studies (e.g. which year, what areas of the examination for comparison) of the examination subject
- (b) remarking past scripts with detailed analysis of candidates' strengths and weaknesses in accordance with the current expectations
- (c) data analysis and comparison of the results of remarking with the past examinations' results
- (d) examiners to consider the comparison results and make recommendations on the findings

**Timeframe:** Target at carrying out the study on four subjects, starting with one or two subjects in 2004/05 school year.

**(C3) Comparability study between local and overseas English language examinations**

**Objective:** To compare the performance of local students in the local and overseas English language examinations

**Justification:** The HKEAA has conducted a comparison study between CE English Language (Syllabus B) and TOEFL (using common examinees) in the late 1980s and the results of the study were distributed to schools. Similar studies were also carried out for Use of English. Schools welcomed the research study. Standing Committee on Language Education and Research has also expressed a wish to see overseas comparison.

It is proposed to conduct a comparability study between TOEFL/IELTS and the CE English Language (Syllabus B) examination.

The comparison study will look at the language requirements in the different examinations and analyse candidates' performance in the different language components.

**Approach:** The comparison studies will be carried out on a common-examinee approach. Arrangements will also be explored with the overseas examination bodies (e.g. University of Cambridge Local Examinations Syndicate for IELTS, Educational Testing Service for TOEFL) for collaborative research on students' standards in the English language. A review of the assessment objectives and requirements of the different examinations will be carried out as well.

**Timeframe:** The comparability study can start in 2004/05 school year.

**(D) Strengthening the support to teachers**

**(D1) Survey and pilot study on quantitative and qualitative feedback for schools**

**Objective:** To find out the kind of quantitative feedback schools would like from public examinations and to carry out pilot studies on some of the proposals.

To find out schools' need for qualitative feedback in public examinations and the viability of such services

**Justification:** In order to provide useful quantitative feedback to schools, it will be useful to consult schools, who pay for the service. Before spending efforts to implement any proposals, it will be desirable to conduct a pilot study.

Although a qualitative review of the general performance of all candidates in the written papers in public examinations is provided in the HKEAA examination reports, schools may wish to have some qualitative feedback on the performance of their students, such as examiners analysing the strengths and weaknesses of their students' answers in the open ended questions. However, such projects will be very costly and schools are unlikely able to afford these services.

**Approach:** A pilot study is suggested to find out the following -

- (a) type of quantitative feedback – survey among schools to find out their specific needs in terms of results feedback
- (b) pilot study – proposed results feedback reports identified in the school survey will be tested in a pilot study (e.g. using one or two schools' data) to find out the report's usefulness and whether it is cost-effective to produce the report centrally by the HKEAA.
- (c) a survey among schools to find out their specific needs for the qualitative feedback
- (d) a pilot study to find out the viability of specific proposals – qualitative feedback involves judgmental input and the likely demand on human resources needs to be assessed. The viability study will include carrying out qualitative analysis on a sample basis (e.g. appointing examiners/experienced markers to go over the performance of a school's students in one subject and comment on their strengths and weaknesses in the examination) for one or two schools to find out the resource implications.

**Timeframe:** The survey and the pilot study can be carried out over the next two years.

## **(D2) Assessment Training Programme for Teachers**

- Objective:** To put together a training programme on assessment concepts and skills for teachers
- Justification:** To provide training to teachers so as to ensure the internal assessment conducted in schools is generally in line with the expectations and requirements of public examinations where applicable, and to support teachers in using assessment to enhance student learning.
- Approach:** The HKEAA is happy to put together a training program of courses and workshops for teachers. The work involves the following -
- (a) A working team comprising subject/assessment experts to identify the specific training needs, training objectives and development of the course framework
  - (b) Planning the programme and preparing the training materials
  - (c) Organising the training programme (including hiring venues, inviting speakers, etc.)
  - (d) Obtaining feedback from teachers and review the course programmes for ongoing improvements
- Timeframe:** Depending on the availability of resources and suitable trainers, the training programme can start with some general courses on the basic assessment concepts and extend to subject-specific workshops/courses in the future. The courses can start in 2004 and continue up to 2009 and beyond.

**Enclosure 2 to FCR(2003-04)58**

**Hong Kong Examinations and Assessment Authority -  
Cost Estimates for the Assessment Development and Research Activities**

	<b>Project Categories / Projects</b>	<b>Funding required</b>
<b>A</b>	<b>Assessment Development</b>	
<b>A1</b>	Development and implementation of the standards-referencing approach in the public examinations	
	Part 1) Research Study	\$3,000,000
	Part 2) Development and implementation	\$64,876,000
	Subtotal for A1	\$67,876,000
<b>A2</b>	Development and implementation of school-based assessment in the public examinations	
	Part 1) Research study	\$5,400,000
	Part 2) Development and implementation	\$12,651,000
	Subtotal for A2	\$18,051,000
<b>A3</b>	Studying and piloting new assessment methods in the public examinations	\$11,226,000
<b>A4</b>	Study of different marking conventions/schemes and the marking process to enhance marking reliability and quality control of the marking process	\$3,000,000
<b>A5</b>	Redevelopment of the computer system to support the overall assessment development activities	\$13,127,000
	Total for A1-A5	\$113,280,000
<b>B</b>	<b>Use of technology to improve the public examinations</b>	
<b>B1</b>	A pilot study on online marking of scripts	\$6,726,000
<b>B2</b>	Study of on-line delivery of public assessments	\$2,000,000
	Total for B1-B2	\$8,726,000
<b>C</b>	<b>Long-term regular guarding and comparison of students' standards and performance</b>	
<b>C1</b>	Introduction of standard benchmarking/reference tests (selected subjects)	\$5,000,000
<b>C2</b>	Studies to compare the performance of candidates in the public examinations across years (selected subjects)	\$2,000,000
<b>C3</b>	Comparability study between local and overseas English language examinations	\$4,000,000
	Total for C1-C3	\$11,000,000

	<b>Project Categories / Projects</b>	<b>Funding required</b>
<b>D</b>	<b>Strengthening the support to teachers</b>	
<b>D1</b>	Survey and pilot study on quantitative and qualitative feedback for schools	\$800,000
<b>D2</b>	Assessment training programme for teachers	\$11,000,000
	Total for D1-D2	\$11,800,000
	Total funding requirement (before deduction of estimated interest to be generated from the one-off grant)	<b>\$144,806,000</b>

Remarks –

The estimates of project costs are based on different forms of execution including consultancy, outsourced tasks, as well as international and local expertise, and project staff on contract basis to support the HKEAA's professional assessment development and research activities.

Hong Kong Examinations and Assessment Authority  
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