

LC Paper No. CB(2)2122/08-09(05)

Ref : CB2/PL/ED

Panel on Education

Background brief prepared by Legislative Council Secretariat for the special meeting on 11 July 2009

Blunders in public examinations administered by the Hong Kong Examinations and Assessment Authority

Purpose

This paper summarizes the deliberations of the Panel on Education (the Panel) on reported blunders in public examinations administered by the Hong Kong Examinations and Assessment Authority (HKEAA).

Hong Kong Examinations and Assessment Authority

2. HKEAA is an independent statutory body established in May 1977 under the Hong Kong Examinations and Assessment Authority Ordinance (Cap. 261). HKEAA was formerly known as the Hong Kong Examinations Authority (HKEA). In July 2002, when the function of HKEA was widened to cover the administration of assessment, its name was changed to HKEAA. The statutory responsibility of HKEAA is to plan and conduct the Hong Kong Certificate of Education Examination (HKCEE) and the Hong Kong Advanced Level Examination (HKALE). On behalf of overseas examining bodies and local professional bodies, it also administers various examinations leading to academic, professional or practical qualifications, including the London Chamber of Commerce and Industry Examinations, the Associated Board of the Royal Schools of Music Examinations, and the Test of English as a Foreign Language Examination.

3. By virtue of the passage of the Hong Kong Examinations and Assessment Authority (Amendment) Bill 2003 in November 2003, HKEAA is empowered to conduct, on its own or jointly with others, examinations and assessment in or outside Hong Kong.

4. HKEAA is governed by the Authority Council. The Authority Council is

responsible for formulating examination policies and monitoring the work of HKEAA. The Authority Council consists of 17 persons including ex-officio members and members appointed by the Chief Executive who are drawn from the school sector, tertiary institutions, government bodies and persons experienced in commerce, industry or a profession in Hong Kong.

Examination blunders

5. Over the past few years, various blunders in HKCEE and HKALE had been reported. These included -

- (a) a discrepancy was found between the Chinese and English versions of a question in HKALE History examination script in 2001, and an error was found in the Pure Mathematics examination script, resulting in an unsolvable question;
- (b) examination scripts were found missing in 2003;
- (c) errors were found in the results of some candidates taking the HKCEE English Language (Syllabus B) in 2005; and
- (d) candidates were tempted to cheat in the 2006 HKCEE English Language (Syllabus B) paper as the examination paper had quoted the source of questions in the website.

Deliberations of the Panel

6. The Panel had discussed the incidents relating to the missing of examination scripts in 2003, the misreporting of the 2005 HKCEE English Language (Syllabus B) results and the alleged cheating in the 2006 HKCEE English Language (Syllabus B) paper. The deliberations of the Panel are summarized below.

Missing examination scripts

7. The Panel discussed the handling of missing examination scripts at its meeting on 17 May 2004. Members noted that The Ombudsman had conducted a direct investigation in November 2003 and released its investigation report on 4 March 2004. The direct investigation examined the measures for the safe custody of examination scripts during the marking process, the adequacy and effectiveness of such measures, remedial actions on loss of scripts, the appropriateness of such actions, and the scope for review and improvement.

8. In its investigation report, The Ombudsman criticized HKEAA for not keeping proper report on its investigation process and findings as a result of which The

Ombudsman was unable to study how the examination scripts were lost and what further steps HKEAA had taken to prevent the recurrence of the incident. The Ombudsman made a number of recommendations for preventing the loss of examination scripts and for providing equitable treatment for the candidates concerned. Among others, The Ombudsman suggested that HKEAA should consider offering candidates the option of re-sitting an examination or accepting the assessed marks, maintain a file for each case, properly investigate each report of loss, include in the instruction guide to markers a firm reminder of the importance of safe custody of scripts, and set up a proper mechanism for appeal against remedial measures taken.

9. According to HKEAA, some 150 000 candidates took the HKCEE and HKALE each year. The HKEAA appointed about 5 000 markers and handled about two million scripts of the two public examinations. The reported number of scripts found missing from 1999 to 2003 was as follows:

Year	Number of missing scripts		
	HKALE	HKCEE	Total
1999	5	7	12
2000	3	18	21
2001	6	16	22
2002	9	8	17
2003	3	2	5
Total	26	51	77

Handling of examination scripts

10. Members noted the current procedures of processing scripts as detailed in **Appendix I**. To reduce the possibility of loss of examination scripts, members put forward a number of suggestions for improving the procedures for handling scripts. Members suggested that markers should open the sealed envelopes containing the scripts and count the scripts in front of HKEAA staff, and HKEAA staff should count the scripts returned by markers before acknowledging the receipt. In the view of HKEAA, enforcing such requirements would incur additional time and space and should be carefully considered.

11. There was a suggestion that HKEAA should consider distributing the sealed envelopes to markers at a markers meeting and require them to count the number of scripts in sealed envelopes at the meeting. HKEAA considered that the reliability of markers in keeping safe custody of examination scripts should not be doubted. HKEAA would continue to review the procedures for handling examination scripts and would consider requiring an invigilator to counter-check the number of scripts collected before putting them in the envelopes.

Centralized marking

12. Some members expressed doubts about the ability of HKEAA to enforce full

compliance by markers with specified procedures and requirements for ensuring the safe custody of examination scripts. They suggested that HKEAA should consider requiring markers to mark examination scripts in selected venues. However, there was a concern that in view of the heavy workload of teachers, secondary schools might not be able to release their teachers to participate in centralized marking during daytime, and many serving teachers would not prefer to mark scripts in selected venues in the evening.

13. HKEAA responded that with effect from the 2004 public examinations, a number of precautionary measures had been implemented which included centralized marking at HKEAA premises for single-script subjects of private candidates. While HKEAA would consider the feasibility of conducting centralized marking, it was concerned that most markers who were serving teachers in day schools might not prefer such an arrangement.

Notification to the affected candidates

14. Members expressed reservations about the arrangement under which HKEAA would only inform the affected candidates of the missing scripts and the assessed grades on the day of publication of the results of the public examinations. Members pointed out that the affected candidates would have no other choice but to accept the assessed grades if they were in urgent pursuit of higher level studies. Members requested HKEAA to advise the affected candidates earlier and provide them with a choice to re-sit the examination.

15. HKEAA pointed out that the practice of not informing the affected candidates was not uncommon among examination authorities in different jurisdictions. The purpose was to avoid creating unnecessary anxiety on the part of the candidates concerned. Upon the recommendations of The Ombudsman, HKEAA had, with effect from the 2004 public examinations, notified the affected candidates of the missing scripts and the assessed grades on the day of the publication of the examination results. HKEAA did not recommend an earlier notification because the assessed grades could only be worked out at the end of the grading process.

16. As regards the option of re-sitting the examination, HKEAA pointed out that it had consulted the Committee on Home-School Co-operation on remedial measures for handling missing scripts, and most members of the Committee had expressed reservations about the adoption of a policy to provide an option of re-sitting the examination. The School Examinations Board under HKEAA was of the view that a re-sit examination in the same administration was essentially a different examination and it would be difficult to compare its results with those in the mainstream examinations. HKEAA would consider the matter carefully having regard to possible practical problems which might arise if re-sitting the examination was allowed. For example, the schedule of the university admission programme which would start soon after the publication of the HKALE results might be disrupted.

Misreporting the HKCEE English Language (Syllabus B) results in 2005

17. HKEAA released the 2005 HKCEE results on 9 August 2005. On 11 August 2005, HKEAA announced that errors were discovered in the results of some candidates taking the English Language (Syllabus B) subject when an appeal case for the 2005 HKCEE was investigated. Upon further investigation, the Oral component grades of 422 candidates and the subject grades of 248 candidates were found to be affected, out of a total of around 79 400 candidates who sat the examination. Of these 670 affected candidates, 223 were eligible for Secondary Six admission. By 12 August 2005, all affected candidates had been notified and provided with new result notices. According to the findings of the Review Panel appointed by HKEAA to investigate into the incident, the two direct causes were a programme bug and an operational fault, and the indirect causes were a failure of quality control and weak incident management.

18. The Panel discussed issues relating to the incident at its meeting on 12 September 2005. They noted that the programme bug was identified and fixed in July 2005 but the debugged programme had not been applied to correct the results. Members considered that this reflected a lack of leadership and communication in management. They called on HKEAA to improve staff communication and internal quality control to prevent recurrence of similar incidents.

19. While acknowledging an element of inadequate supervision and poor communication in the incident, HKEAA pointed out that according to the conclusion of the Review Panel, the overnight checking from 11 to 12 August 2005 to verify the papers affected by the programme bug was adequate.

Improvement measures

Members sought information on measures to improve HKEAA's computer 20. systems to enhance efficiency and effectiveness. According to HKEAA, it had established an external Review Committee in March 2005 to conduct a thorough review of its information systems and services in order to meet future challenges. In its final report, the Review Committee identified a number of ways to improve examination system and services, including the establishment of on-line marking centres for centralized marking of examination scripts to improve administration of examinations and reduce the risk of missing scripts. HKEAA had also decided to establish a new Information Technology (IT) Committee to oversee the reform of its IT infrastructure and systems. Moreover, the HKEAA Council had resolved to set up a Quality Assurance Unit reporting directly to the Secretary General of HKEAA. One of the main roles of the Unit was to enforce the implementation of the ISO9000 quality assurance processes. In particular, staff of the Unit would be responsible for ensuring strict compliance with the procedures specified for the operation of the computer systems in accordance with the ISO9000 requirements. HKEAA would also restructure its Information Systems and Services Division with a view to enhancing the supervision of the operation and integration of the various functions

relating to examination administration.

21. HKEAA subsequently sought funding approval of \$21.9 million to meet the four-year rental and one-off renovation expenses required for the establishment of a centralized on-screen marking centre on the Hong Kong Island for a period of four years. The funding application was approved by the Finance Committee on 7 July 2006.

Alleged cheating in the 2006 HKCEE English Language (Syllabus B) paper

22. A student in a web forum speculated that the naming of websites in the 2006 HKCEE English Language (Syllabus B) paper might tempt candidates to go to the washrooms and use mobile phones to access the websites for the correct answers. HKEAA subsequently received over 500 enquiries and reports about the speculation. The Panel discussed the alleged cheating at its meetings on 8 May and 12 June 2006 in the context of considering an application for grant to support HKEAA in establishing its centralized on-screen marking centre.

Remedial actions

23. Members considered that the incident had seriously affected public confidence in the reliability of HKEAA's examination administration and systems. They were concerned about the findings of HKEAA's investigation and whether any remedial measures were taken to prevent the improper use of mobile phones in examination venues.

24. HKEAA advised that it had conducted detailed analyses on all the 506 reports from members of the public and the reports from centre supervisors and invigilators on the number of candidates going to the washrooms during the examination, the duration of the washroom trips, the candidate numbers of those involved, etc. A statistical analysis of the performance of candidates in the relevant part of the examination in the 25 examination centres identified provided no clear indication of cheating. The findings of HKEAA's investigations revealed no evidence of any widespread cheating using mobile phones in the relevant examination. HKEAA concluded that there was no need for any re-sit of the examination, or for cancellation of the marking of any particular part of the paper.

25. To prevent cheating by using mobile phones, HKEAA had immediately implemented measures to strengthen compliance with the existing regulations on the use of mobile phones in all public examinations. As regards the way forward, HKEAA would review the administrative feasibility and implications of banning all telecommunication devices in examination venues in consultation with the school sector, continue to study the use of telecommunication devices to enhance invigilation and review the need to amend the relevant rules and regulations to enhance the deterrent and facilitate examination centre staff to discharge their duties and HKEAA to investigate into suspected cheating.

Quoting the source of materials in examination papers

26. Members queried the rationale for quoting the source of materials in examination papers. Members pointed out that quoting the source of materials did not exonerate the users from infringing the copyright. HKEAA should approach the copyright owners before or after the public examination in order to show its respect for their copyright works. There was also a view that HKEAA should use original texts for examinations to avoid recurrence of similar incidents.

27. According to HKEAA, the practice of quoting the source of materials in examination papers had been adopted for six years in recognition of the need to respect copyright works. Under the existing Copyright Ordinance, the use of materials for examination purposes was not regarded as an infringement of copyright. However, as an educational body responsible for examination administration, HKEAA considered it appropriate to quote the source of materials. In the light of the latest development in information technology and changing social circumstances, HKEAA would change the format of acknowledgement for "cloze" questioning, following a review by the Public Examinations Board.

Latest incident

28. In April and May 2008, the Office of The Ombudsman received nearly 100 complaints about the 2008 HKALE. The complainants criticized HKEAA for unreasonably changing the marking schemes for Sections A and E of the subject of Use of English (respectively UEA Paper and UEE Paper). Their main points of complaints are as follows -

- (1) Task 6 of UEA Paper (Listening Test) asked candidates to use "✓" or "×" to indicate a "yes" or "no" answer. Some candidates did not follow instructions and left some boxes blank. HKEAA changed the marking scheme by treating the blank boxes as "no" answers and awarded marks on this basis; and
- (2) Task 1 of UEE Paper (Practical Skills for Work and Study) asked candidates to write a letter of "about 500 words". However, some candidates had written more than 500 words. HKEAA again changed the marking scheme to disregard the word limit and awarded marks to writings exceeding the 500-word limit.

29. After investigation into the complaints, The Ombudsman concluded that overall, the two complaints were unsubstantiated. However, The Ombudsman was of the view that HKEAA had failed to provide candidates with appropriate and accurate task instructions. As a result, candidates used different approaches in completing the task. The Ombudsman concluded that "there had been maladministration on the part

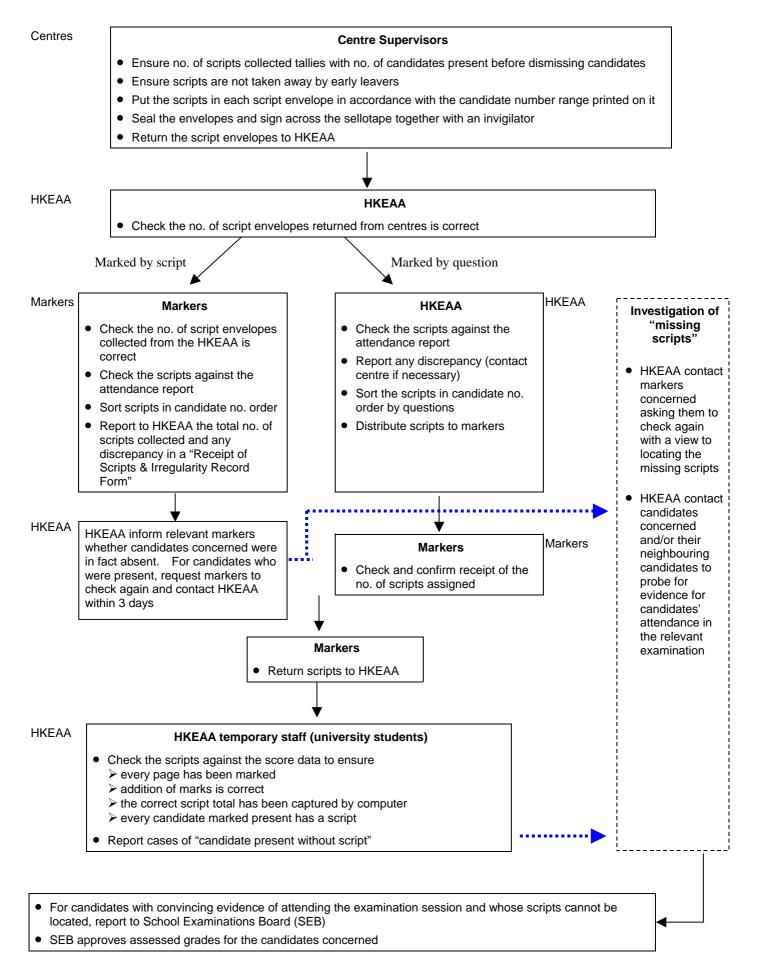
of HKEAA other than alleged" in paragraph 28 (1) above.

Relevant papers

30. A list of the relevant papers available in the Legislative Council website is in **Appendix II**.

Council Business Division 2 Legislative Council Secretariat 6 July 2009

Flowchart of Processing Scripts



Relevant papers on blunders in public examinations administered by the Hong Kong Examinations and Assessment Authority

Meeting	Date of meeting	Paper
Panel on Education	17.5.2004 (Item III)	Minutes Agenda
Panel on Education	12.9.2005	<u>Minutes</u> <u>Agenda</u>
Panel on Education	8.5.2006 (Item VI)	<u>Minutes</u> <u>Agenda</u>
Panel on Education	12.6.2006 (Item V)	<u>Minutes</u> <u>Agenda</u>

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