

立法會
Legislative Council

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Panel on Education

**Minutes of special meeting
held on Monday, 12 September 2005 at 4:30 pm
in Conference Room A of the Legislative Council Building**

- Members present** : Dr Hon YEUNG Sum (Chairman)
Hon Audrey EU Yuet-mee, SC, JP (Deputy Chairman)
Hon Mrs Selina CHOW LIANG Shuk-ye, GBS, JP
Hon CHEUNG Man-kwong
Hon LEUNG Yiu-chung
Hon Jasper TSANG Yok-sing, GBS, JP
Hon Tommy CHEUNG Yu-yan, JP
Hon Andrew LEUNG Kwan-yuen, SBS, JP
Dr Hon Fernando CHEUNG Chiu-hung
Hon Patrick LAU Sau-shing, SBS, JP
- Members absent** : Hon Emily LAU Wai-hing, JP
Hon MA Lik, GBS, JP
- Public Officers attending** : Mrs Fanny LAW, GBS, JP
Permanent Secretary for Education and Manpower
- Mr Chris WARDLAW
Deputy Secretary for Education and Manpower (5)
- Mr Irving KOO, SBS, JP
Chairman, Hong Kong Examinations and Assessment Authority
- Dr Peter W HILL
Secretary General, Hong Kong Examinations and
Assessment Authority

Clerk in attendance : Miss Flora TAI
Chief Council Secretary (2)2

Staff in attendance : Mr Stanley MA
Senior Council Secretary (2)6

Action

I. Recent marking blunder of the Hong Kong Examinations and Assessment Authority and related issues

The Chairman informed members that the purpose of the meeting was to discuss with the Administration and the Hong Kong Examinations and Assessment Authority (HKEAA) improvement measures to re-establish public confidence in examination administration. The Legislative Council (LegCo) Secretariat had prepared a background brief to facilitate the discussion [LC Paper No. CB(2)2538/04-05(02)]

The incident and remedial measures

2. Referring to paragraph 8 of the Administration's paper [LC Paper No. CB(2)2538/04-05(01)], Mr CHEUNG Man-kwong expressed disappointment that although the programme bug leading to the incident involving misreporting of 2005 Hong Kong Certificate of Education Examination (HKCEE) English Language (Syllabus B) Oral paper results was identified and fixed in July 2005, the debugged programme had not been applied to correct the results. Mr CHEUNG considered that it seemed that there was a lack of leadership and communication in management. He stressed that HKEAA should improve staff communications and internal quality control to prevent recurrence of similar incidents in the future.

3. Chairman of the Hong Kong Examinations and Assessment Authority (Chairman of HKEAA) responded that as detailed in paragraph 5 of the Administration's paper, HKEAA had immediately carried out a series of remedial measures after discovery of the error, including the establishment of an independent Review Panel (the Review Panel) to investigate into the cause of the incident and recommend improvement measures. The report of the Review Panel had confirmed that apart from a programme bug and an operational fault, there was an element of inadequate supervision and poor communication in the incident. The report also concluded that the overnight checking from 11 to 12 August to verify the results of the papers affected by the programme bug was adequate.

Action

Improvement measures

4. Mr CHEUNG Man-kwong noted from paragraph 8 of the Administration's paper that the new HKCEE computer system was first implemented in July 2004, and most program modules had undergone appropriate tests by January 2005. He sought clarification about the description in paragraph 13 of the paper that the current systems for administering examinations were antiquated. He also asked how HKEAA management would improve its computer systems to enhance efficiency and effectiveness in examination administration.

5. Chairman of HKEAA explained that the existing systems for administering examinations were established in the late eighties and were heavily reliant on manual processes and outdated computer systems and procedures. The new HKCEE computer system had enhanced the management of the system database, but not the entire computer infrastructure for processing of examination results. He pointed out that HKEAA had established an external Review Committee (the Review Committee) in March 2005 to conduct a thorough review of its information systems and services in order to meet future challenges.

6. Chairman of HKEAA further said that the Review Committee had submitted its final report at the beginning of August 2005. The report identified a number of ways to improve the examination systems and services, including the establishment of online marking centres for centralised marking of examination scripts to improve administration of the examinations and reduce the risk of missing scripts. At its meeting in September 2005, the HKEAA Council had discussed the recommendations of the report and decided to establish a new Information Technology (IT) Committee to act on the findings of the Review Committee and to oversee the reform of HKEAA's IT infrastructure and systems. HKEAA had taken immediate measures to improve the current systems and in the longer term to modernise its IT infrastructure and to develop a fully automated and integrated examination system.

7. Mr CHEUNG Man-kwong considered that HKEAA should review the responsibility of the management in the incident and re-structure the Information Systems and Services Division (ISD) with a view to improving staff communications in reporting and staff collaborations in following up operational irregularities. Referring to paragraph 4 of the Administration's paper, he considered that the student who lodged his appeal on 11 August 2005 had helped HKEAA identify the error in the result of Oral paper of English Language (Syllabus B) at an early opportunity, and hence avoid a more serious crisis if the error was not identified until a much later stage.

8. Secretary General, HKEAA (SG(HKEAA)) responded that HKEAA Council had considered the reports of the Review Committee and the Review

Action

Panel, and decided to implement a number of initiatives to improve the IT infrastructure and systems of the Authority. In particular, HKEAA Council had adopted the recommendation of the Review Committee that ISD should not be involved in the examination operations and that there should be a segregation of system development and operational functions to provide the necessary checks and balances.

9. SG(HKEAA) acknowledged that non-compliance with the relevant procedures for authorisation and reporting in respect of the updating, verification and documentation of the production data in the computer system was the main cause of the error. At its meeting in September 2005, HKEAA Council had considered the report of the Review Committee and resolved to set up a Quality Assurance Unit reporting directly to the Secretary General. One of the main roles of the Unit would be to enforce the implementation of the ISO9000 quality assurance processes. In particular, staff of the Unit would be responsible to ensure strict compliance with the procedures specified for the operations of the computer systems in accordance with the ISO9000 requirements.

10. Chairman of HKEAA agreed that a more collaborative environment with closer communications at both the management level and the operation level would enhance management and organisational effectiveness in administering examinations. He pointed out that HKEAA Council had established an Investigation Committee composed of two Council members and an external observer to follow up the findings of the Review Panel and to investigate the assignment of responsibility in the incident. According to the conclusion of the Investigation Committee, a number of staff members were found to be responsible for the incident. He added that in a way the incident had proved the effectiveness of HKEAA's appeal mechanism, and the efficiency of HKEAA staff in identifying the problem.

11. Ms Audrey EU said that the improvement measures outlined in the Administration's paper were insufficient to restore public confidence in examination operations. She considered that the identification of the programme bug and the disciplinary actions taken against the responsible staff members could not guarantee no recurrence of similar errors in the future. She asked how HKEAA could convince parents and students that the results of the 2006 HKCEE would reflect the actual performance of candidates in different subjects.

12. In response, SG(HKEAA) described the manual operations and the large number of markers and checkers involved in the collection, despatch, marking and checking of the HKCEE scripts. He pointed out that according to past experience, sometimes there were errors in adding up the marks of the scripts, using score sheets and transferring scores to score sheets. Apart from the assigned marker and checker for each script, HKEAA employed a large number of university students on a part-time basis to recheck the score sheets under supervision. Nevertheless, SG(HKEAA) pointed out that it would be very

Action

difficult, if not impossible, to guarantee no human error in the marking and checking processes. He added that the rechecking of the results of the English Language (Syllabus B) Oral paper for 79 400 candidates had identified 16 cases of data preparation errors including markers' transcription or summation errors, and incorrect use of forms.

13. SG(HKEAA) further said that in the short term, HKEAA would improve the process of marking and checking of marks in the 2006 HKCEE, including improving the design of the score sheets used by examiners and strengthening the random sample rechecking procedures to eliminate the computational or data preparation errors. The existing appeal mechanism also served as a counter-checking function as students who had any doubts about their scores in HKCEE might lodge appeals to HKEAA for a recheck of their examination results. There would not be a limit on the number of subjects for rechecking in the 2006 HKCEE. In the long-term, HKEAA would implement onscreen marking and real-time processing on a web-based platform to reduce the extent of manual operations. Furthermore, HKEAA would conduct a discrepancy analysis across all subjects to identify and recheck any marks which appeared abnormal.

14. Ms Audrey EU remarked that HKEAA should not rely on the appeal mechanism for identification of possible errors in assessment of students' performance in HKCEE. She pointed out that from the perspective of parents and students, reliability of the results of the coming 2006 HKCEE was most important. She asked how HKEAA would explain to the public that the incident was a localised incident and would not be repeated in the 2006 HKCEE. She considered that HKEAA should assure the community that HKEAA had revamped the examination administration and results processing systems and procedures to ensure no recurrence of similar errors.

15. SG(HKEAA) responded that as part of the remedial action, HKEAA had conducted a systematic check of the 2005 HKCEE results and found no further processing errors. This rechecking procedure was also considered by the Review Panel to be adequate. As regards the manual processes, HKEAA would implement a number of measures to improve the process of marking, checking and rechecking of marks. He, however, added that it would be difficult to assure the public that all possible human errors could be eliminated.

16. Ms Audrey EU asked how HKEAA would reshuffle its governance structure in order to ensure no recurrence of similar communication breakdown which had directly caused the incident.

17. SG(HKEAA) responded that HKEAA would restructure its ISD in the next few months with a view to enhancing the supervision of the operation and integration of the various functions relating to examination administration. Along with the modernisation of the IT infrastructure and systems, effort would

Action

be made to cultivate a more collaborative and motivating working environment. In addition, HKEAA would set up a Quality Assurance Unit reporting directly to SG(HKEAA) by the end of 2005 to ensure compliance with the incident reporting and other work procedures.

18. The Chairman and Mr CHEUNG Man-kwong shared the concern about reliability of public examination results in the future. They asked how the Administration would collaborate with HKEAA to prevent recurrence of similar errors in the future.

19. Permanent Secretary for Education and Manpower (PSEM) acknowledged the adverse impact of the incident on public confidence in the administration of public examinations by HKEAA, in particular the coming 2006 HKCEE. She anticipated that the improvement measures as detailed in the Administration's paper and highlighted at the meeting would prevent recurrence of similar errors in the future. The Education and Manpower Bureau would continue to provide funding support to HKEAA in the implementation of the improvement measures and modernisation of its IT infrastructure and systems. She added that the Administration had supported HKEAA with one-off grants for assessment development and research activities in 2004.

20. Mr LEUNG Yiu-chung said that the incident had affected the confidence of parents, students and teachers in the reliability of the public examination results published by HKEAA. He considered the human errors in the incident a result of insufficient supervision and enforcement of work procedures. He asked whether the HKEAA Council and the HKEAA management had any responsibility in the incident and how the senior staff members had enforced compliance with the reporting and operational procedures in the administering of public examinations.

21. Chairman of HKEAA responded that the Investigation Committee had interviewed all staff members concerned, including the Secretary General and the Deputy Secretary General. HKEAA Council had considered the reports of the Review Panel and the Investigation Committee at its meeting on 9 September 2005. After thorough discussion, HKEAA Council had resolved to terminate the contract of the Head of ISD, and a senior administrative assistant with immediate effect, and to issue a written warning to two staff members who shared an indirect responsibility in the incident. Another senior manager found to be directly responsible for the incident had earlier resigned.

22. Chairman of HKEAA further said that HKEAA would restructure the ISD with a view to enhancing the supervision and monitoring as well as the necessary checks and balance in the division. A new IT Committee would be established under HKEAA Council to oversee the reform of the IT infrastructure and systems for examination administration.

Action

23. PSEM supplemented that the role and functions of HKEAA Council did not include supervision of staff performance and the operation of the examination systems, and should not be blamed for the incident. She added that HKEAA Council was well aware of the problems and limitations of the existing systems in examination administration, and were taking appropriate measures to improve the situation.

24. Mr LEUNG Kwan-yuen asked whether HKEAA would conduct a comprehensive review of its work procedures and organisations to prevent recurrence of similar errors.

25. PSEM responded that in 2002, HKEAA Council had already commissioned a consultant to conduct a strategic review of the functions and capability of HKEAA, and identify the necessary changes to enable it to better fulfil its role and functions. The Strategic Review Final Report was completed in May 2003. The progress of implementations of the recommendations in the Report were set out in Annex B to the Administration's paper. She highlighted that HKEAA was determined to improve its governance structure and develop better IT infrastructure to enhance efficiency and effectiveness in examination administration.

26. Referring to paragraph 13 of the Administration's paper, Mr Jasper TSANG asked whether HKEAA had ascertained the need to implement electronic scanning for scripts, onscreen marking and automation of processes using real-time processing on a web-based platform. He cautioned that HKEAA should examine the time taken and costs incurred for electronic scanning of the scripts, and conduct the necessary quality assurance and risks assessments before the adoption of the new systems for examination administration. Mr LEUNG Kwan-yuen expressed a similar concern.

27. SG(HKEAA) responded that HKEAA attached utmost importance to running reliable examination results, and would implement the new systems only after full assurance of quality and comprehensive assessment of risks. He explained that the scanning of scripts for the 2006 HKCEE was the first step towards onscreen and centralised marking of selected subjects in 2007. HKEAA would develop the new computer systems for on-line marking of the Chinese Language and English Language papers from the 2007 HKCEE, and extend the use of the systems to other subjects on a progressive basis. He added that the adoption of electronic scanning of scripts would not delay the announcement of HKCEE results. HKEAA would carefully plan the schedule of implementation during September to November 2005, in particular the provision of sufficient training to markers on the operation of the scanning and computer systems.

28. SG(HKEAA) further said that the development of the new computer systems for the processing of examination results was underway. HKEAA would make reference to the experience and applications of on-line marking in

Action

other jurisdictions including the United Kingdom and the Mainland in its development of tailor-made systems for processing scripts. Mr LEUNG Kwan-yuen remarked that in the interests of the candidates, HKEAA should continue to explore the use of IT to enhance efficiency and effectiveness in examination administration on an on-going basis.

29. Chairman of HKEAA said that assessment of students' performance in Chinese Language and English Language would be conducted on the basis of standards-referencing for the 2007 HKCEE. This would prepare the way for the development of systems for processing the results of the new public examinations for the Hong Kong Diploma of Secondary Education in the context of the new senior secondary education reform. He added that in the long term, on-line marking could advance the announcement of HKCEE results by two to three weeks.

30. Mr Patrick LAU asked about the impact of on-line marking on the design and format of questions in public examinations. He considered that the academic attainments of students at senior secondary levels should better be assessed in both multiple choice questions and open-ended questions.

31. Chairman of HKEAA responded that the prevailing international trend was to incorporate more open-ended questions for assessment of senior secondary students' academic attainments in different subjects. In line with the spirit of the education reform, HKEAA would also be adopting an increasing amount of open-ended questions in public examinations. He added that this policy would not be affected by the adoption of on-line marking.

32. Dr Fernando CHEUNG considered that in view of the various incidents of missing scripts and errors in examination papers in the past, HKEAA Council should aim to cultivate a more collaborative culture and environment in the work places. He also suggested that HKEAA should review its handling of crisis similar to the incident and improve support services to students who were affected by an error in examination administration.

33. Chairman of HKEAA responded that HKEAA understood the sentiments and concerns of the public, in particular the candidates and parents, regarding the incident. As a result of the incident, HKEAA would implement a series of measures to reinforce the relevant work procedures and enhance the handling, marking and checking of scripts for the 2006 HKCEE. He admitted that on reflection, there was room for improvement in the provision of support services to parents and candidates who were affected in the incident. He, however, stressed that HKEAA had a team of professional and dedicated staff whose contribution to examination administration should be recognized.

Action

Applications for remarking of scripts

34. Mr CHEUNG Man-kwong and Ms Audrey EU referred to paragraph 16 of the background brief prepared by the LegCo Secretariat and expressed concern about the press report that as at 1 September 2005, 378 of the 6 604 candidates who had lodged applications for remarking of their scripts in the 2005 HKCEE had been awarded higher grades in the subjects concerned. Mr CHEUNG cautioned that the high success rate of 5.7% might trigger a substantial increase in the number of applications for remarking in the 2006 HKCEE.

35. SG(HKEAA) responded that as a result of the incident, the number of applications for remarking of scripts had increased from 4 414 in the 2004 HKCEE to 8 363 in the 2005 HKCEE. After remarking, a total of 220 and 378 subject grades were upgraded in the 2004 and 2005 HKCEE respectively. In other words, while the number of applications had more than doubled in 2005, the number of upgrades did not increase to the same extent. He added that HKEAA had standing procedures for handling remarking. He cited Chinese Language and English Language as examples. Both subjects required markers to assess the ability of candidates to express their views and ideas in writing. Although HKEAA provided markers with standard guidelines on marking of scripts, they would have to exercise judgement in the award of marks for each candidate's answers. In case of an appeal for remarking, HKEAA would arrange a marker to remark the script in question. If the remarking suggested a change of score, another marker would be assigned to remark the script to confirm the need to change the subject grade. He added that under current HKEAA policy, a candidate's attainment in a subject would not be downgraded as a result of a remarking. PSEM pointed out that since a total of 8 363 applications for remarking of scripts were lodged by the 6 604 candidates in the 2005 HKCEE, the upgrading of 378 subject grades after remarking represented an overall success rate of 4.5% only.

36. Mr CHEUNG Man-kwong asked whether the proposed onscreen marking and automation of the marking process would reduce the number of appeals and upgrading of subject grades in the future.

37. SG(HKEAA) replied that onscreen marking and automation of the marking process would allow markers to mark the scripts and checkers to check the marks of the scripts on a web-based platform. This would greatly reduce the time taken for processing of applications for remarking.

38. Ms Audrey EU asked whether the high success rate of appeals would encourage candidates to apply for remarking of their scripts in the 2006 HKCEE. SG(HKEAA) replied that the existing procedures for lodging appeal required school candidates to obtain the support of their schools. Mr CHEUNG Man-kwong considered that in the light of the incident, HKEAA should relax the

Action

requirement on application for remarking of scripts. Chairman of HKEAA responded that HKEAA had all along acknowledged the right of candidates to apply for remarking of scripts.

Support for HKEAA

39. Mr LEUNG Kwan-yuen expressed appreciation of the enthusiasm and determination of the Chairman of HKEAA in steering the reform of examination administration in Hong Kong. He pointed out that the reform would bring about changes to the existing governance structure of HKEAA and the established practices and procedures in examination administration. He considered that despite the direction of reform was well supported, there would inevitably be some resistance to the structural and procedural changes in the course of implementation. He asked how HKEAA would expect the LegCo, the Administration, the stakeholders and the community as a whole to help speed up the progress of the reform.

40. Chairman of HKEAA responded that since his assumption of the office in September 2003, HKEAA had appointed the incumbent SG(HKEAA) to oversee the progressive implementation of the recommendations of the Strategic Review Final Report. He agreed that it was crucial that the professional experiences and expertise of HKEAA staff in examination administration should contribute to the implementation of the reform initiatives. He expressed confidence that the new HKEAA management could motivate and lead its staff towards accomplishment of the reform objectives.

41. Chairman of HKEAA further said that HKEAA did not have sufficient reserves to implement the reform initiatives. He anticipated that the Administration would prepare the appropriate financial proposals for the approval of the LegCo Finance Committee in due course.

42. Mr LEUNG Kwan-yuen remarked that HKEAA should collaborate with the Administration to work out the financial proposals for submission to the Finance Committee for approval. He added that he and the Liberal Party would support the proposals which were justified and would help speed up the progress of modernising the IT infrastructure and systems in HKEAA.

Increase of examination fees

43. Responding to Dr Fernando CHEUNG, Chairman of HKEAA said that around \$100,000 was incurred for implementing the remedial measures after the incident.

44. Dr Fernando CHEUNG asked whether the costs incurred for the identification of the errors in examination administration and implementation of the support services and remedial arrangements to the affected candidates would

Action

be recovered through the increase of examination fees.

45. Chairman of HKEAA explained that the existing levels of examination fees had remained unchanged for seven years. HKEAA was reviewing the current financial model with a view to recovering the direct cost in the short term and the full costs of administering the public examinations, subject to the economic climate and public acceptance. He added that the increase of examination fees in 2006 was a move towards recovering the direct costs incurred for administering HKCEE and the Hong Kong Advanced Level examinations.

II. Any other business

46. There being no other business, the meeting ended at 6:20 pm.

Council Business Division 2
Legislative Council Secretariat
1 November 2005