

**Report on Alleged Cheating in HKCEE English Language  
(Syllabus B) Paper 2 on 4 May 2006**

**Background**

On 4 May 2006 from 10:30 a.m. to 12:00 noon, about 77,000 candidates sat for the Hong Kong Certificate of Education Examination English Language (Syllabus B) Paper 2 Examination in 1,276 examination centres in 240 schools. In the paper, there were 22 items based on inserting blanks into the text and requiring students to infer the correct word from a set of four choices. An example is as follows :-

Text: Text Bullying is 31 someone abuses or threatens you by text ...

Item 31:     A. how        B. that        C. when        D. because

At the bottom of the page, the source of the text was acknowledged (<http://www.stoptextbully.com>).

2.           After the examination, a candidate in a web forum speculated that the naming of websites in the question paper might tempt candidates to go to the washrooms and use mobile phones to access the websites for the correct answers. This speculation quickly found its way to the media and was widely reported by the press. As at 12 May 2006 (when the reports were analyzed), 506 enquiries and reports had been received by the Hong Kong Examinations and Assessment Authority (HKEAA). Over 15,000 signatures were also collected on the web calling for investigation or cancelling the relevant part of the examination.

3.           Following the speculation, HKEAA stepped up its existing measures to monitor candidates requesting to go to washrooms during examinations. It also requested centre supervisors and invigilators to immediately report on suspicious cases observed. Through the examination centre supervisors, HKEAA communicated directly to candidates the series of actions that it was taking to look into the claims, and reported that up to then, there was no sufficient information to constitute any specific case of cheating via this method. At the Legislative Council (LegCo) Panel on Education meeting on 8 May 2006, Members requested HKEAA to report back on its follow up actions regarding the case.

**Follow Up to Reports Received**

*(I) Enquiry with UK-based Web Master*

4.           Having consulted the Police and the Office of the Telecommunications Authority (OFTA), HKEAA secured the cooperation of the UK-based web master of <http://www.stoptextbully.com> in obtaining a listing of the Internet Protocol addresses (IP addresses) of persons who accessed the website between 3:30 a.m. to 5:00 a.m. GMT + 0100 (the time in the UK when the relevant examination took place) on 4 May. From this information it was possible to determine whether the persons accessing the website were from Hong Kong and whether they used a mobile phone to do so. It did not, however, reveal the identities of such persons.

5. From the log provided by the web master, it was possible to confirm that the same IP address was used on two occasions, the first being for around 14 minutes and the second for around 3.5 minutes, with a 40 minute interval between the two sessions, using the same service provider and the same model of phone. Based on this information and the pattern of browsing of the two sessions, it was concluded that the sessions most likely represent access by the same person, meaning a single case of mobile phone access from Hong Kong to the website during the specified time. Further analysis of this case indicated prima facie evidence for further investigation which is ongoing.

(II) *Enquiry/Report Analysis*

6. HKEAA has conducted detailed analyses on all 506 reports received from candidates and parents, as well as those reported by the media. It has considered the origin, substance, traceability and actionability of the reports and sought further information from a number of complainants.

7. A breakdown of the reports analyzed is as follows:

<u>Category</u>	<u>Reports</u> <sup>Note</sup>	<u>No.</u>
1	Non-anonymous prima facie substantive	16
2	Non-anonymous prima facie non-substantive	24
3	Opinions	359
4a	Anonymous with substance	2
4b	Anonymous without substance	105

8. Of the reports received, only 1 pointed to a specific candidate with details, and almost all of those which were prima facie substantive identified only the examination centre involved. An overwhelming majority of reports mentioned “many”; “a lot”, or a “more than the usual number” of candidates going to the washrooms during the examinations, but provided no further details.

9. HKEAA also analysed all reports received from centre supervisors and invigilators for the English Language (Syllabus B) Paper 2 examination (from about 226 schools) on the number of candidates going to the washroom during the examination, the duration of the washroom trips, the candidate numbers of those involved and any unusual or suspicious behaviour, etc.

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<sup>Note</sup> Almost all of these reports were received via email. Category 1 “non anonymous prima facie substantive” refers to those carried the senders’ names, candidate numbers or cases where an examination centre was named. Category 2 “non-anonymous prima facie non-substantive” refers to reports that carried the senders’ names, but contained no information on examination centres or suspicious candidates. Category 3 “opinions” refers to cases where there were no specific information on examination centres and candidates, nor were there any substantial allegations. But rather, some suggestions on follow up actions or improvement were made. Category 4a and 4b do not carry the senders’ full names, but the content of “4a” contained traceable information such as names of examination centres.

10. Of the reports from examination centres, the majority recorded 3% to 4% of the candidature going to washroom during the examination. The durations of the majority of the washroom trips (5 minutes or below) appeared normal given the distance between the examination venue and nearby washrooms.

11. In an examination hall that accommodates 200 candidates, it is reasonable to expect that between 6-8 candidates will go to the washroom. Based on the above analyses, there was no indication of unusually large numbers of candidates going to the washroom or other suspicious activities. However, there were a few cases with comparatively long washroom trips, and these cases, together with those in categories 1 and 4(a) mentioned in paragraph 7 above, were singled out for further follow up. The information gleaned from these cases has also been used to inform the follow up action mentioned in paragraph 5 above.

### *(III) Field Tests*

12. A total of 25 examination centres covering Hong Kong, Kowloon and the New Territories were involved in the cases mentioned in paragraph 11 above. Of these, 23 were school halls and 2 were classrooms.

13. To establish the feasibility and efficiency of using mobile phones to reach these sites and search for specific information, a selection of these examination centres were visited by HKEAA's staff and the Hong Kong Wireless Centre, an independent telecommunication consultant on 11 May. A series of tests were conducted on site using different models of mobile phones and hand held devices (2G, 3G, smart phone and PDA) to access the internet, using both GPRS and 3G technologies. A total of 11 of the largest service providers were contacted and each of the above mentioned mobile devices was hooked to one provider throughout the test. Tests were undertaken to establish the time taken from turning on the equipment, entering the website and complete scrolling of the full web page. In addition, information was collected on the time taken to get to and from the hall to the washroom.

14. The above tests indicated that although cheating using a mobile phone access to the Internet is technically feasible, the speed is about 20 times slower than that using a desk top computer. No network coverage was detected at some schools in Tseung Kwan O and Shatin, and some mobile phones displayed the text of "www.stoptextbully.com" web page with truncated or incorrect wordings. Some mobile phone models displayed only the left part of the passage and required user to scroll right in order to display the rest.

15. In addition, network coverage and technical configurations of some phone models pose constraints to smooth and uninterrupted access to the web by mobile phones. It is not easy to read a text, especially lengthy ones and texts with attachments using a mobile phone. In a high stake examination, leaving the seat to go to the washroom, switching on a mobile phone and getting oneself connected to the network and the right web page that contains a specific answer require a reasonably long period of time. This also represents genuine time loss which directly reduces the time available for completing the examination and reviewing answers. This is therefore not something that a candidate would contemplate doing lightly, especially given the serious penalties (disqualification from the whole examination) if caught.

*(IV) Analysis of Student Performance*

16. HKEAA has conducted a statistical analysis of the performance of candidates in the relevant part of the examination, focusing on those students in the 25 examination centres identified for further investigation.

17. All the 49 multiple choice items in the relevant English Language (Syllabus B) Paper 2 were divided into two separate parts: comprehension part and usage part (which includes the “www.stoptextbully.com” passage). The first part contains 27 items and the second part, 22 items. Answers to the first part are based on a thorough understanding of the passage quoted. As the performance of candidates in this part should not have been affected by this incident, the results of candidates in this part of the paper can be used as a reference to study the performance of candidates in the second part. For candidates in the centres identified, their performance in these two parts was compared. No major discrepancy case was identified. The analysis provided no clear indication of cheating in the identified centres.

**Review of Invigilation and Centre Supervision Guidelines**

*(I) Guidelines on Use of Mobile Phones*

18. Having regard to advances in technology and the increasing popularity of electronic recording/communications products, as long ago as 1997, HKEAA stipulated in its handbook for candidates that if unauthorized articles such as book, dictionaries, notes, papers, mobile phones, pagers, electronic dictionaries, etc and other electronic devices which can store and/or display texts (including databank watches) are found on/in a candidate’s desk, on his body or in his pockets, the candidate may receive mark penalties or even be disqualified from the examination. The handbook for candidates and the guidelines for invigilation staff in the conduct of examinations are reviewed annually to take into account the changes in examination procedures and instructions, and recent trends and developments that may affect examinations. For example, starting in 2005, MP3 players have not been allowed in examination venues. With the fast growing popularity of mobile phone and the difficulties of completely prohibiting mobile phones in examination venues, HKEAA has stipulated in its handbook that if a candidate’s mobile phone/device emits a sound during the examination, he/she is liable to receive mark penalties. It also expressly stipulates that candidates must switch off their mobile phones (including the alarm function) and put the phones inside their bags or under their chairs.

*(II) Step-up Measures*

19. In view of the allegations of cheating on 4 May 2006, HKEAA immediately implemented the following measures to strengthen the compliance with the existing regulations on the use of mobile phones in all public examinations :-

- (a) All candidates should switch off their mobile phones and place them under their chairs and not in their bags. They should make sure that the mobile phones are not covered by anything and are clearly visible to the invigilators;

- (b) Candidates who go to the washroom should leave their mobile phones under their chairs. The invigilator accompanying the candidates should ask the candidates where they put their mobile phones (if no mobile phones are found under the candidates' chairs) and to verbally confirm that they do not have their mobile phones on their bodies; and
- (c) The centre supervisor should record the names of the candidates (or the candidate numbers / seat numbers) of those who go to the washroom and the time, and report to the HKEAA on a daily basis. This will provide the HKEAA with a record in case any irregularity is detected.

### *(III) Planned Improvements*

20. HKEAA will actively review the administrative feasibility and implications of banning all telecommunications devices including mobile phones in examination venues. It will consult school councils on this in the coming few months. In the Mainland and Australia, bringing a mobile phone into an examination venue may lead to disqualification or cancellation of all grades for examinations during the year.

21. In addition, in consultation with OFTA, HKEAA will continue to investigate the use of mobile phone detection devices and devices for detecting other telecommunications gadgets, e.g. Bluetooth.

### **Devices for Mobile Phone Detection**

22. Since early 2006, HKEAA has been exploring with a provider the feasibility of using a mobile phone detection device in Hong Kong to test signals emitted by mobile phones when in use. Similar devices are currently used in the Mainland's public examinations and work is underway to adapt such a detector for the full range of telecommunications devices used in Hong Kong.

### **Review on Question Setting - Quoting the Source of Articles and Using Original Texts**

#### *(I) Quoting the Source of Articles*

23. Quoting the source of materials in examination papers is a common practice amongst examination boards worldwide. It also represents respect and compliance to copyright. HKEAA has for many years made it a practice to acknowledge the authorship of the articles and source materials used in examination papers. Increasingly, the Internet provides a wide range of text types well written articles on a full range of topics. Since 2000, HKEAA has been using materials from the web and acknowledging such materials in question papers.

*(II) Use of Authentic Materials*

24. In an examination setting, it is desirable to use articles which are based on real life issues. The use of authentic texts for teaching and testing purposes (not only for English, but for many other subjects) is a practice followed by overseas examination authorities and is in any case demanded by the curriculum, which requires students to be competent in dealing with such texts.

25. Texts specially written for teaching and testing purposes may attempt to reflect 'real' language, but will always be, to a large extent, artificial, no matter how hard the setters and moderators of the texts try not to make it so. Similarly, producing an examination text through the process of changing an authentic text to the point where none of the testing items occurs in the original would negate its authenticity.

*(III) Use of 'Cloze' Questioning*

26. Questions involving inserting blanks into a piece of authentic text and requiring students to infer the correct word from a set of choices make use of a well established testing technique for assessing language competence, known as the 'cloze' method. The construction of such questions requires careful selection of appropriate texts and professional expertise in inserting blanks that assess students' ability to derive meaning from text, including their knowledge of syntactic and grammatical structures.

27. It is evident that if a student was able to gain access to the original text, they could, if they had the question paper in front of them, readily locate the missing words. But if they did not have the question paper in front of them (as in the alleged cheating situation using a mobile phone in the washroom during the examination) they would first need to memorize the text. In this situation, the chances of gaining an advantage by locating the relevant text using the Internet are slim, particularly in this case where there were 22 insertions to be made in several disconnected passages of text. In reality, this question type is no more prone to cheating than most other question types, for which a candidate could perform a search on key text or a topic and potentially gaining substantial assistance in framing an answer. This serves to reinforce the fact that the critical task is to prevent any cheating using mobile telecommunications devices.

*(IV) Way Forward*

28. HKEAA's view remains that authentic assessment to evaluate students' abilities in real world contexts is vital. However, in view of the widespread concern of candidates on the abuse of the acknowledgement of the sources of materials quoted, HKEAA will change the format of such acknowledgement for this kind of question type in the future, following a review by the Public Examinations Board.

## **Legislation**

### *(I) HKEAA Ordinance (Cap 261)*

29. Currently, section 7, subsection 1 of the Hong Kong Examinations and Assessment Authority Ordinance (Cap 261) provides HKEAA with the power to do all such things as necessary or advantageous and proper in planning and conducting examinations and assessments in Hong Kong. Subsection 1A of the same section provides that HKEAA may make rules to regulate the conduct of candidates sitting specified examinations and the exclusion of candidates from sitting specified examinations for breach of any rule. HKEAA presently has a rule that has been clearly stipulated and communicated to candidates that cheating in examinations could lead to disqualification not just for the specific subject concerned, but for all subjects that the candidate takes in that year.

30. At present, Cap 261 does not contain any express clauses to facilitate examination centre staff such as supervisors and invigilators in discharging their duties. Nor does it contain clauses that help facilitate HKEAA in investigating suspicious cheating cases.

### *(II) Review*

31. HKEAA has made a preliminary study of the laws, rules and regulations in 5 places outside Hong Kong involving 7 examination authorities. It will further study the laws, by-laws, rules and regulations of other jurisdictions and review Cap 261 in the later half of 2006.

32. HKEAA is currently open regarding proposed amendments, if any, and will be ready to fully discuss this with its Council and Committees, and consult the education sector where appropriate. Broadly, the main areas for review will be as follows :-

- (a) To consider whether there is any need to enhance the deterrent to bringing telecommunications devices into examination venues and if so, what that deterrent should be;
- (b) To consider whether there are any ways and means to further facilitate centre staff including supervisors and invigilators in discharging their duties; and
- (c) To consider the need for an express clause in Cap 261 to further facilitate HKEAA's investigations into suspicious cheating cases.

## **Conclusion and Way Forward**

33. The analyses of the log file from the UK web master with Police and OFTA, and the information received from centre supervisors, invigilators and students, etc, indicate that there was likely a single case of mobile phone access from Hong Kong to the website "[www.stoptextbully.com](http://www.stoptextbully.com)" while the examination was in progress. An investigation is still in progress to try and establish whether the person(s) involved is a candidate, and whether any further action by HKEAA is warranted. Privacy protection legislation may mean that it is not possible to establish this conclusively. However, HKEAA's investigations have revealed no

evidence of any widespread or significant cheating using mobile phones in the relevant examination. HKEAA reaffirms that there is no need for any re-sit of the examination, nor is there any need to cancel the marking of any particular part of the paper.

34. The results of the investigation indicate that most Hong Kong students are disciplined and honest, and that they are aware of the severe penalties for cheating in examinations. The incident has also demonstrated that the supervision exercised by supervisors and invigilators at examination centres is sufficient. However, having regard to the concerns of the community, HKEAA will further strengthen its supervision guidelines and practices, while striking a balance between the imposition of control over candidates and trust and respect for their right to privacy.

35. With the increased sophistication and widespread use of mobile telecommunications technology, there is a need for HKEAA's policies and measures to be continuously reviewed and improved. The current practice of citing web addresses in future examination papers will be changed in order to minimize the chance of similar concerns being expressed in the future.

36. As the way forward, HKEAA will :-

- (a) investigate the suspicious case identified and accord appropriate penalties if warranted.
- (b) review the administrative feasibility and implications of banning telecommunications devices in examination venues in consultation with the school sector;
- (c) continue to investigate the use of telecommunications detection device to enhance invigilation;
- (d) continue the acknowledgement of the sources of materials quoted in examinations, but change the format of such acknowledgement following a review with HKEAA's Council; and
- (e) further study the laws, by-laws, rules and regulations of other places and the other examination boards, and review the need to amend Cap 261 in line with paragraph 32.

HKEAA  
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