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Minutes of the Fifth Meeting of the CDC Committee on Science Education (2000-01)

Date: 13 July 2001 (Friday)

Time: 3:10 – 6:15 p.m.

Venue: Room 205, 2/F., Hong Kong Teachers Centre (Kowloon),
19 Hok Yuen Street, Hunghom, Kowloon

Present:

Mr TSE Pak-hoi (Chairman)
Mr CHAN Chi-tuen
Mr CHAN Man-tak
Mr CHENG Chi-leung
Dr CHOW King-lau
Mr HO Chung-nin
Ms LEUNG Lai-mei
Mr HO Yau-sing
Mr LEUNG Shiu-keung (Vice-chairman)
Dr MAK Chi-keung
Mr PANG Chi-chuen
Mrs TANG TSUI Sau-mei
Mr YIP Chee-kuen
Mr WONG Kin-on (Secretary)

Absent with Apologies:

Dr CHEUNG Sin-pui, Derek
Mr CHONG Shiu-Kit
Mr CHUI Hing-wa
Dr FUNG SHI Yuk-hang
Dr LEE Hau-chi
Ms LEE Kwan-ping, Carole
Ms LEE Pui-har
Dr Ng Kwok-hung
Mr OR Choi-kuen

In Attendance:

Mr CHAN Pui-tin
Mr CHEUNG Chow-ming
Mr FONG Wai-hung
Mr LAU Yuen-tan

Documents sent and tabled:

SC1/5/00 Minutes of the Fourth Meeting of the CDC Committee on Science Education (2000-01)
SC2/5/00 Updated Information about Ad Hoc Committees
SC3/5/00 Summary Report of Consultation Forum on the Revision of the S4-5 Biology Curriculum
SC4/5/00 Summary Report of Consultation Forum on the Revision of the S4-5 Chemistry Curriculum
SC5/5/00 Summary Report of Consultation Forum on the Revision of the S4-5 Physics Curriculum
--- Work Plan for the Curriculum Development of Science & Technology
--- Research & Development Projects for Science Education
--- Teacher Development Programmes for Science Education (2001-02 School Year)
-- Major Science Education Events (July-September 2001)
Integration: An Approach to Science in Primary Schooling (by Peter J Fensham)
台灣中小學科學教育演進簡史(熊召弟、陳嘉成著)

Minutes:

1. Confirmation of minutes of the Fourth Meeting

1.1 The minutes were confirmed without amendments.

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2. Discussion on matters arising from the last meeting

2.1 All matters arising from the last meeting would be discussed in the agenda that followed.

3. To receive updated information of ad hoc committees under the CDCC on Science Education

3.1 The Secretary briefed on the latest developments of ad hoc committees under the CDCC on Science Education. Two of the ad hoc committees had completed their tasks and hence dissolved. They were the Ad Hoc Committee on the Revision of the English-Chinese Glossary of Terms Commonly Used in the Teaching of Science (S.1-3) in Secondary Schools and Ad Hoc Committee on the Review of Science Curriculum at Primary Level. The Ad Hoc Committee on the Revision of A-Level Biology Curriculum was reformed. The Ad Hoc Committee on Assessment for Learning in Science Education was newly formed.

3.2 As the A-Level Biology Curriculum and Assessment Guide was a new attempt, there was concern about whether other subjects would follow suit. The Vice-chairman replied that the concept of combined guide would be applied to all subjects so as to align assessment with learning and teaching.

3.3 It was pointed out that the terms of reference of ad hoc committees on the revision of biology/chemistry/physics curriculum did not include aspects on assessment. The Vice-chairman replied that the work on assessment was left to the joint HKEA-CDC working parties.

3.4 Some members requested for a clearer direction from the senior levels on the format of the curriculum and assessment guide. The Vice-chairman opined that flexibility should be allowed for the combined guides of different subjects. The Chairman held the view that the format of the combined guides could be worked out by the joint working parties concerned.

4. To receive preliminary report on the consultation of draft revised curricula of S4-5 Biology, Chemistry and Physics

4.1 Mr CHAN Pui-tin briefly reported on the consultation of draft revised curriculum of Biology. The questionnaire survey showed that teachers were concerned about the heavy content as well as the quantity of suggested activities in the STS column of the draft curriculum. The ad hoc committee would study these comments and revise the draft curriculum accordingly.

4.2 Mr FONG Wai-hung briefly reported on the consultation of draft revised curriculum of Chemistry. A few teachers felt that some of the topics deleted in the last revision exercise were added back. There was concern about how to tailor the flexible curriculum and to arrange project learning for students. Some teachers requested for resources written in Chinese. The questionnaire survey showed that teachers were concerned about whether the curriculum

could facilitate students to develop thinking skills and positive values. The ad hoc committee would study these comments and revise the draft curriculum accordingly.

- 4.3 Mr LAU Yuen-tan briefly reported on the consultation of draft revised curriculum of Physics. A few teachers misinterpreted the five sections proposed in the draft curriculum as the recommended teaching sequence. There was concern about copyright issue related to the article reading advocated in the draft curriculum. The questionnaire survey showed that teachers were concerned about the quantity of suggested activities in the draft curriculum and whether the curriculum could facilitate students to develop positive values. The ad hoc committee would study these comments and revise the draft curriculum accordingly.

- 4.4 It was questioned whether the final version of the revised curriculum and official responses to teachers' comments would be disseminated to schools. The Vice-chairman replied that the finalised curriculum guide would be issued to schools in due course. He further remarked that after the endorsement of the CDCC, responses to teachers' comments could be sent to schools as well. The Chairman suggested that the responses to teachers' comments could be turned into a kind of frequently asked questions (FAQ) posted on the web for teachers' reference. The Chairman further suggested to use exemplars to help address the concerns raised by teachers

5. To receive progress report on the development of S4-5 Science and Technology curriculum

- 5.1 The Chairman briefed on the background of the change of subject title to S4-5 Science & Technology. Mr LAU Yuen-tan briefly reported on the progress of the development work. The first draft of the six modules would be available by the end of this year or early next year for consultation. The ad hoc committee on Science & Technology would not insist on the use of textbook for the subject, but would prefer to have the learning and teaching resources available on the web. Teacher development programmes would be organised in 2002.
- 5.2 It was questioned what the situation would be if there was no textbook. Some members suggested to seek funding for the development of teaching packages for the use of teachers.
- 5.3 Regarding the appropriateness of the content of the curriculum to the non-science students, it was suggested to invite some non-scientists to comment on the draft curriculum and to use questionnaire to solicit students' interested topics.
- 5.4 There was concern about whether science students could opt for Science & Technology course. The Chairman suggested the ad hoc committee on Science & Technology to study the issue.

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6. To discuss on matters related to the finalisation of science curriculum framework

- 6.1 The Vice-chairman briefly reported on the progress of final report of “Learning to Learn” and schedule of work ahead for KLAs. The Science Education KLA Curriculum Guide would be published in 2002.
- 6.2 It was suggested to address issues on generic skills, thinking skills, values and attitudes, and assessment in the Science Education KLA Curriculum Guide. The Ad Hoc Committee on the Development of Curriculum Framework for the Science Education KLA would resume work soon.

7. To discuss on matters related to the collaborative research and development projects in science education

- 7.1 The Vice-chairman briefly reported on the research and development (R & D) projects for Science Education. Though there were two schools applying for the projects “Assessment for Learning in Science” and “Decision Making in Science Education”, their proposals were either too simple or not relevant and hence not accepted. Two primary schools were working on the project “Scientific Investigation in General Studies. It was pointed out that the Science Camp organised by HKUST in St Paul’s Co-educational (Kennedy Road) Primary School was well received by students, teachers and parents. Students’ interest in learning science was highly promoted.
- 7.2 Some members raised concern about the competency of teachers in helping students in carrying out scientific investigation in primary schools. The Vice-chairman opined that the experience gained and examples evolved from the try-out of such activity could help to build up confidence and competency in teachers. He further mentioned that the reference materials compiled by HKUST for the Science Camp could be further developed into teaching package to help teachers conducting scientific investigation.
- 7.3 There was comment that the research component of the R & D projects was not strong enough. The Vice-chairman replied that the project would include literature review and research methodology. Consultants of the projects would provide assistance in these areas.
- 7.4 The Vice-chairman briefed on the teacher development programmes in 2001-02 to support science education in schools. Members in general supported the proposals.

8. Any other business

- 8.1 The Secretary briefed on the major science activities in July-September 2001. Members were invited to provide information for update.
- 8.2 A vote of thanks was passed to Ms LEUNG Lai-mei and Dr MAK Chi-keung for their service in the Committee as co-opted members.

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- 8.3 A vote of thanks was passed to members of the Ad Hoc Committees on the Revision of the English-Chinese Glossary of Terms Commonly Used in the Teaching of Science (S.1-3) in Secondary Schools and Ad Hoc Committee on the Review of Science Curriculum at Primary Level for their service in the committees.
- 8.4 The term of office of most of the members of the Committee was due to expire in August 2001. The Chairman and Vice-chairman thanked the members for their involvement and professional input to promote science education in the school curriculum. New members would be recruited through open nomination of schools teachers in July.
- 8.5 Members were invited to attend a dinner reception after the meeting.
- 8.6 There being no other business, the meeting adjourned at 6:15 p.m.

Confirmed on _____.

(Mr TSE Pak-hoi)
Chairman

(Mr WONG Kin-on)
Secretary