

ITEM FOR FINANCE COMMITTEE

HEAD 156 – GOVERNMENT SECRETARIAT : EDUCATION BUREAU

**Subhead 700 General non-recurrent
New Item “Promotion of e-Learning in the school sector”**

**Subhead 700 General non-recurrent
Item 913 Implementation of the third strategy on information technology in
education**

Members are invited to approve –

- (a) the creation of a new commitment of \$128 million under Head 156 Government Secretariat : Education Bureau Subhead 700 General non-recurrent for the promotion of e-Learning in the school sector; and
- (b) an increase of \$12 million in the approved commitment under Head 156 Government Secretariat : Education Bureau Subhead 700 General non-recurrent Item 913 Implementation of the third strategy on information technology in education, from \$40 million to \$52 million, for strengthening and expediting the development of the Depository of Curriculum-based Learning and Teaching Resources.

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PROBLEM

The Government is committed to promoting e-Learning in the school sector to help students develop self-learning skills and the habit of life-long learning. Additional funding is required to implement various measures to generate sound pedagogical practices and to build up an environment that is conducive to e-Learning, both within schools and in the community.

PROPOSAL

2. The Secretary for Education (SED) proposes to –
 - (a) create a new commitment of \$128 million for promoting e-Learning in the school sector by launching a pilot scheme on e-Learning in schools, providing a one-off grant to schools for purchasing e-Learning resources, setting up an e-platform for transactions of e-Learning resources and an online community for teachers at the Hong Kong Education City (HKEdCity) website; and
 - (b) increase the approved commitment for implementation of the third strategy on information technology (IT) in education by \$12 million, from \$40 million to \$52 million, for strengthening and expediting the development of the Depository of Curriculum-based Learning and Teaching Resources (the Depository).

JUSTIFICATION

Report by Working Group on Textbooks and e-Learning Resources Development

3. The Working Group on Textbooks and e-Learning Resources Development (WG) was set up in October 2008 to study the use and development of textbooks and e-Learning resources.

4. The WG noted that the Government had launched three IT in Education Strategies since 1998. The long term vision of promoting IT in education is to shift the paradigm in school education from a textbook-based and teacher-centred mode to a more interactive learner-centred mode. To materialise the ultimate goal of “paradigm shift” in learning and teaching, e-Learning is considered as an effective means to make learning more efficient, effective and interesting, and help students develop the habit of life-long learning, which in turn facilitates whole-person development.

5. At present, the adoption and the adaptation of e-Learning to achieve learning intentions vary among schools. Further understanding and development of e-Learning to promote effective learning is, therefore, the issue to work on. The WG hoped to find out the role and functions of e-Learning resources in promoting effective learning in conjunction with pedagogies, curriculum contexts, and other supporting measures.

6. To facilitate the WG's discussions and to formulate recommendations, an extensive consultation exercise comprising three public forums, two student forums and questionnaire surveys was launched from February to June 2009 to collect views from the public, school principals, teachers, students and parents. Taking into account the development of e-Learning, and views gauged, the WG submitted its report on the issues discussed and its recommendations to SED on 22 October 2009. The recommendations are summarised as follows –

- (a) a three-year pilot scheme on “Promoting e-Learning” should be launched in 20 to 30 local schools;
- (b) a one-off grant should be provided to all local schools in the 2009/10 school year for purchasing e-Learning resources for students;
- (c) an e-platform for transacting e-Learning resources and an online community for teachers should be set up at the HKEdCity website;
- (d) from the 2009/10 school year onwards, additional resources should be provided for strengthening and expediting the development of the Depository for primary levels. Measures should also be taken to expedite the development of the Depository for secondary levels so as to expand the coverage of the Depository in terms of Key Stages and Key Learning Areas (KLA); and
- (e) in-depth studies on the copyright of e-Learning resources and the possible impact on students' health due to the frequent use of such resources should be carried out.

7. After considering the WG's recommendations, we propose to take forward the measures detailed in the ensuing paragraphs.

Pilot Scheme on e-Learning

8. As the WG has pointed out, successful implementation of e-Learning hinges on the availability of quality e-Learning resources, and the sustainable development of such resources depends on the collaboration and joint efforts of the schools, academia and private sector. In line with the WG's recommendation, the Government will take the lead to create an appropriate environment for e-Learning and promote it as students' major mode of learning through carrying out a pilot scheme to look into how e-Learning should be implemented in different contexts as well as the support measures required.

9. Under this pilot scheme, the participating schools will be the research and development centres and change agents for wider adoption and adaptation of e-Learning. Specifically, through the pilot scheme, we hope –

- (a) to better understand the challenges on strategic school development that schools may face as well as teachers' needs in respect of e-Learning resources, infrastructure, professional development, support services and the like;
- (b) that sound pedagogical practices can be developed for wider adoption in the school sector in future;
- (c) to encourage schools to partner with various sectors and develop viable partnership models; and
- (d) to explore commercially viable business models for the development of e-Learning resources.

10. We plan to set aside \$68 million out of the proposed new commitment of \$128 million for the pilot scheme. Of the \$68 million, a total of \$57 million will be disbursed to about 20 to 30 schools participating in the pilot scheme to meet the expenses arising from implementation, including but not limited to –

- (a) engaging in research and development of pedagogical practices on e-Learning;
- (b) co-developing e-Learning resources and/or platform with partners, including other schools, tertiary institutions, and the private sector (IT and publishing firms);
- (c) enhancing the participating schools' IT infrastructure and providing necessary computer devices for students; and
- (d) providing additional technical and teaching support.

11. All government, aided, caput and Direct Subsidy Scheme (DSS) primary and secondary schools (including special schools) may apply to join the pilot scheme which will last for three school years for the participating students. Allowing some lead time for participating schools to start the relevant programmes, the pilot scheme is expected to end in the 2013/14 school year. Interested schools will be required to submit school-based proposals to implement e-Learning to enhance the effectiveness of learning and teaching. While schools may submit proposals on their own, they may also form school clusters and submit joint applications. Selection will be based on the merits of the proposals, the criteria of which will be decided by a Steering Committee that will oversee the pilot scheme and to recommend the way forward on e-Learning. The Steering Committee will comprise representatives from the school sector, IT sector, education publishing/e-content providers, academia and parents. On average, each participating school will receive a grant of about \$1.9 million. The exact amount will depend on the estimated budgets of the schools' proposals to be approved by the Education Bureau (EDB). To ensure prudent use of public resources, any unspent provision granted to the participating schools will be clawed back by the Government after the end of the pilot scheme. Apart from the \$57 million to be granted to the participating schools, we also propose to earmark \$11 million for providing support services to schools; conducting research and evaluation for the pilot scheme; and facilitating the dissemination of practices generated by participating schools.

12. To facilitate schools to make sound proposals and to collaborate with other relevant stakeholders, a series of engagement activities will be organised beforehand. These include briefing sessions to enhance schools' understanding of the aims and objectives of the pilot scheme, exposure sessions to expose schools to different schools of thoughts and relevant resources, experience capturing sessions to enable schools to tap ideas from local and overseas practitioners, and partnership sessions to facilitate schools to line up with academic and private sector partners.

Providing a one-off grant to schools for purchasing e-Learning resources

13. The use of e-Learning resources is a world-wide trend. The WG pointed out that the expertise of the textbook publishers and the IT sectors should be made use of to develop e-Learning resources that suit the needs of students and teachers. While there are recurrent funds¹ for schools which can be used for purchasing e-Learning resources, in line with the WG's recommendation, we propose to provide a total of \$50 million as one-off grant for all government, aided, caput, and DSS schools (including special schools) in 2010-11, which the schools may spend over three years.

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¹ Recurrent funds are disbursed in the form of block grants including Operating Expenses Block Grant, Expanded Operating Expenses Block Grant and Expanded Subject and Curriculum Block Grant.

14. In line with the current arrangement for disbursement of the Composite IT Grant, schools will receive a grant of about \$33,000 to \$83,000 depending on the number of classes. The grant is for purchasing e-Learning resources and aims to promote the use and further enrich the inventory of e-Learning resources in schools, as well as to facilitate and promote the development of the e-resources market. Any unspent provision will be clawed back by the Government after the 2012/13 school year.

15. We will arrange a series of supporting activities to help schools use the grant effectively. These activities include, for example, seminars on how to choose pedagogically sound e-Learning resources, and exposition or online information on sources of e-Learning resources. These activities may be organised by EDB and/or HKEdCity, or in conjunction with other sectors.

Setting up an e-platform for transaction of e-Learning resources and an online community for teachers at the HKEdCity website

16. To complement the above proposed measures, the WG also recommended the setting up of an e-platform for transacting e-Learning resources. Accordingly, we will task HKEdCity² to develop an e-platform for providing a secured online one-stop shop where e-Learning resources can be sourced and purchased. Specifically, this infrastructure will assist students, teachers and parents to acquire e-Learning resources online from various providers, encourage and facilitate the education publishing sector, education sector, IT sector and other e-content providers to develop e-Learning resources, display their products and to have on-line transactions.

17. To act as a market facilitator, HKEdCity will consult relevant stakeholders (including the IT sector, publishing sector, non-governmental organisations, schools, parents, students, etc.) to work out the standards of the platform, the collaboration mechanism, the user requirements, transaction models, etc. The intention is that the e-platform will be inter-operable with existing e-platforms and e-Learning resources; and will also attend to digital rights management issues as well as the necessary payment gateway facility. We propose to set aside \$10 million for HKEdCity to set up the platform, covering costs of infrastructure, developing various operation models and payment gateway, providing Digital Rights Management Solution, and promotion, contingency and miscellaneous items. We expect the e-platform to be ready for full-fledged use by early 2011.

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² HKEdCity is a wholly-owned company of the Government, set up to promote IT in Education and support the Government's education policy. HKEdCity already has the basic infrastructure as well as the necessary membership system (students, teachers, schools and parents) to see to the set-up of the platform quickly, efficiently and cost-effectively.

18. In addition to the e-platform for online transactions of e-Learning resources, the HKEdCity will strengthen its online teacher community with a view to facilitating peer review and sharing of e-Learning resources. The HKEdCity will absorb any additional resources required in this regard.

Strengthening and expediting the development of the Depository of Curriculum-based Learning and Teaching Resources

19. At present, when implementing e-Learning, teachers need to spend time searching for relevant resources from the Internet. This has been cited as one of the reasons leading to increased workload. To help teachers cope with the challenge, EDB has undertaken under the Third IT in Education Strategy to develop the Depository for Primary 1 to Secondary 3 levels in Chinese Language, English Language, Mathematics and Science (for secondary levels) and General Studies (for primary levels). Under an approved commitment of \$40 million³, a sum of \$20 million has been earmarked for the staff costs required to develop the Depository.

20. The original intention was to complete the Depository for primary levels by the end of the 2010/11 school year; and that for the secondary levels by the end of the 2012/13 school year. The development of the Depository for primary levels has been progressing well. It collects free resources, both online and printed, provided by local and overseas government organisations, tertiary institutions, schools and non-profit-making organisations. The resources are selected and organised into thematic units based on the local curriculum framework, with teaching suggestions as well as user guides.

21. The WG recommended that the development of the Depository at primary and secondary levels be strengthened and expedited to complement the above measures, pending the emergence of a mature e-Learning market. In line with the WG's recommendations, we propose that the completion of the Depository for primary levels be advanced to the end of the 2009/10 school year, after which the Depository should be further strengthened, updated, and enhanced in the next two school years until the 2011/12 school year. As for the Depository for Secondary 1 to 3, we have just completed an analysis on user requirements. The result suggested an expansion of the scope to cover six KLA, viz. Chinese

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³ A total of \$40 million under Head 156 Government Secretariat : Education Bureau Subhead 700 General non-recurrent Item 913 Implementation of the third strategy on information technology in education was approved by this Committee vide FCR(2007-08)58 on 22 February 2008 for the implementation of various measures under the third strategy on information technology in education, including (a) staff cost for developing the on-line depository; (b) production and purchase of digital resources for the depository; (c) trying out new IT initiatives by schools; (d) strengthening technical support for schools; (e) raising parents' information literacy; and (f) enhancing students' information literacy.

Language; English Language; Mathematics; Science; Personal, Social and Humanities; and Technology. To cater for the need of users, we propose that the scope of the Depository for secondary levels be expanded to cover the aforesaid KLA. As such, on top of the \$20 million which has already been earmarked for the staff cost for developing the Depository under the Third IT in Education Strategy, we estimate that additional funding of \$12 million will be required for engaging additional manpower to strengthen and expedite the development of the Depository. About \$2.5 million will be required for the primary levels and about \$9.5 million for the secondary levels.

22. Upon the completion of this project, we believe that the development of the Depository can be self-sustained and can be further developed by teachers themselves through an online community at the HKEdCity website to be set up to facilitate peer review and sharing of e-Learning resources among teachers. Besides, it is believed that a mature e-Learning market will gradually emerge to provide local schools with sufficient quality e-Learning and teaching resources.

Carrying out in-depth studies on the copyright of e-Learning resources and the possible impact on students' health due to the frequent use of such resources

23. The WG expressed concerns about the possible impact of the frequent use of computers on students' physical, psychological and social well-being. Some stakeholders were also concerned about copyright issues of online resources. They pointed out that the source of a significant amount of online resources was unknown, and teachers might encounter difficulties in obtaining permission to use the materials. Publishers, on the other hand, were concerned about illegal use of their e-Learning resources as these could be disseminated more readily than printed materials. As such, the WG suggested that studies on the two issues be carried out in order to formulate relevant strategies and support measures.

24. We will carry out the studies on the issues of health and copyright. We will consult and work in collaboration with relevant organisations and professionals, with a view to implementing awareness programmes, preparing resource materials to help teachers, parents and students to understand more about the two issues and providing relevant advice and support. EDB will absorb the financial implications of these studies from within existing resources.

FINANCIAL IMPLICATIONS

25. As detailed above, the proposals related to the promotion of and research on e-Learning and development of related materials and services will require non-recurrent expenditure totaling \$140 million. The estimated cash flow requirements for the respective items are listed below –

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	Financial Year						Total
	2010-11 \$'000	2011-12 \$'000	2012-13 \$'000	2013-14 \$'000	2014-15 \$'000	2015-16 \$'000	\$'000
<i>(a) e-Learning initiatives</i>							
(i) Pilot scheme on e-Learning	58,300	2,000	2,000	1,900	2,100	1,700	68,000
(ii) Providing a one-off grant to schools for purchasing e-Learning resources	47,800	1,100	1,100	-	-	-	50,000
(iii) Setting up an e-platform for transactions of e-Learning resources and an online community for teachers at the HKEdCity website	10,000	-	-	-	-	-	10,000
Sub-total	116,100	3,100	3,100	1,900	2,100	1,700	128,000
<i>(b) Depository of Curriculum-based Learning and Teaching Resources</i>							
(i) Additional staff cost for developing the online depository	2,400	4,100	3,600	1,900	-	-	12,000
Sub-total	2,400	4,100	3,600	1,900	-	-	12,000
Total	118,500	7,200	6,700	3,800	2,100	1,700	140,000

While the pilot scheme on e-Learning and the purchasing of e-Learning resources will span across a few school years, we intend to provide the relevant grants to the eligible schools upfront, in 2010-11, to provide them with more flexibility in planning and deployment of resources and to simplify the administrative arrangements. Any unspent provision will be clawed back according to the arrangements set out in paragraphs 11 and 14 above.

26. We expect that within the overall level of commitment, minor adjustments may be made to the cash flow requirements across the respective financial years and among different measures as shown in paragraph 25 above according to the actual operational needs. EDB will include relevant provisions in

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the draft Estimates of the respective years and will absorb from within its existing resources the recurrent costs arising from the implementation of the e-Learning initiatives. Subject to this Committee's funding approval, EDB will start to implement the proposed measures.

PUBLIC CONSULTATION

27. Members of the WG came from various sectors, including IT experts, school principals, teachers as well as representatives from tertiary institutions, the textbook publishing industry, the Consumer Council and the parent sector. As set out in paragraph 6 above, an extensive consultation exercise comprising three public forums, two student forums and questionnaire surveys was launched from February to June 2009 to collect views from the public, school principals, teachers, students and parents on the further promotion of e-Learning in the school sector.

28. We consulted the Legislative Council Panel on Education on the proposal on e-Learning as set out in this submission and other issues relating to the development of textbooks at its meeting on 14 December 2009. Members raised no objection to the funding proposal on e-Learning and noted the Administration's plan to submit the funding proposal to the Finance Committee. The Panel will invite representative organisations to give views on the other issues at its meeting in February 2010.

BACKGROUND

29. In the 2008-09 Policy Address, the Chief Executive announced, *“To enhance students’ ability for self-learning and interactive learning, and to promote the use of e-books rather than printed copies, we will look into the development of electronic learning resources. The use and prices of school textbooks have become a public concern. Some people have pointed out that the frequently-revised textbooks have imposed a financial burden on parents in recent years. We will invite information technology experts, parents, school principals, teachers, publishers and others to form a task force to study these issues in detail. We will draw on international experience in formulating long-term measures to alleviate the financial burden on parents and to facilitate learning.”* To follow up this announcement, EDB set up the WG, chaired by the Under Secretary for Education, to examine the issues of textbooks and e-Learning resources and make recommendations to SED so as to formulate effective strategies and measures.