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Panel on Education

Updated background brief prepared by the Legislative Council Secretariat for the meeting on 16 April 2007

Small class teaching

Purpose

This paper summarises the discussions of the Panel on Education (the Panel) on issues relating to small class teaching in primary and secondary schools.

Background

2. In 1992, the Education Commission Report No. 5 (ECR5) recommended, among others, a reduction of five places in the standard class size at each level from Primary 1 (P1) to Secondary 5 (S5) by phases and improvement of teacher-to-class ratio. The Administration, at that time, agreed to the class size as recommended in ECR5, i.e. 35 students for each conventional class and 30 for each activity approach class in primary schools, and 35 students for each class in secondary schools.

3. In 1997, the Administration decided to adjust the class size slightly by adding two students to each class in primary schools and temporarily suspend the reduction of class size in secondary schools in order to speed up the full implementation of whole-day primary schooling by 2007-2008. According to the Administration, this adjustment of class size was complemented by a wide range of enhanced measures to support schools and teachers, including providing 860 additional clerical staff to primary and secondary schools, speeding up the creation of graduate posts in primary schools, and providing secondary schools and primary schools with 880 and 650 additional teachers respectively in four school years.

4. In response to an oral question raised at the Council meeting on 13 November 2002, the Secretary for Education and Manpower (SEM) advised that given the controversial nature of the subject of small class teaching, the complexity of the problems involved and the substantial resources required for implementation in

public sector primary schools, the Administration planned to conduct a pilot study on small class teaching in 30 to 40 primary schools as from the 2003-2004 school year. The participating schools would try out a class size of about 20 students at junior levels. The objective of the study was to find out -

- (a) whether small class teaching was able to bring about positive effects on teaching and learning, and if so, how and to what extent;
- (b) how the expertise and teaching strategies of teachers affected the effectiveness of teaching and learning in small and regular classes; and
- (c) whether small class teaching was cost-effective.

Deliberations of the Panel

5. Since the Administration's announcement of the launch of the pilot study at the Council meeting, the Panel followed up the subject of small class teaching at a number of meetings. The following provides a gist of the related issues considered by the Panel in chronological order.

The proposal of a longitudinal study on small class teaching

6. The Administration informed the Panel on 18 November 2002 its intention to conduct a longitudinal study on small class teaching as from the 2003-2004 school year. Members queried the need to conduct the longitudinal study. They considered that the benefits of small class teaching were apparent and all teachers would support its implementation to facilitate class management and improve student-teacher interactions in a classroom setting.

7. The Administration explained that although there had been calls for a reduction in class size in primary education, overseas experience showed that reducing class size per se might have very little effect on the quality of education. It was necessary to find out the pre-conditions and teaching strategies which would maximise the benefits of small class teaching. In view of the substantial resources required for implementing small class teaching in public sector primary schools, it needed to conduct a longitudinal study in selected primary schools to find out the relationship between small class teaching and its effectiveness on teaching and learning. The longitudinal study would help determine the optimal class size for primary education and identify the role and functions of teachers in both small and regular classes. The Administration would formulate policies and implementation strategies for the cost-effective use of education resources after a careful examination of the results of the longitudinal study.

8. Members urged the Administration to consider maintaining the resources allocation to primary schools at the current level and allow small class teaching in case their student enrolment decreased as a result of a declining student population.

They also requested the Administration to consult frontline teachers on the merits of small class teaching, instead of making reference solely to the results of the longitudinal study.

The study on effective strategies of class and group teaching in primary schools

9. At the Panel meeting on 19 May 2003, the Administration informed members of its proposal to conduct a study on effective strategies of class and group teaching in primary schools (the Study), instead of the longitudinal study as originally proposed. The objective of the Study was to identify the good practices in small class and variable group teaching in selected public sector primary schools for dissemination to and adaptation by other schools for enhancing learning effectiveness. The Study would be in two stages. At stage one, a survey would be conducted on existing good practices of effective small and variable group teaching strategies adopted in schools. At stage two, the attributes of success as identified from the exemplars in stage one would be applied to 10 selected schools which adopted conventional class teaching.

Rationale for replacing the longitudinal study

10. Members were concerned that the Study was in essence not a study on small class teaching. The adoption of variable class size and group teaching strategies did not mean a reduction in class size but only a flexible adjustment of class size to suit different learning and teaching activities. Replacing the longitudinal study by the Study was tantamount to a change in the Administration's position on small class teaching.

11. The Administration explained that there were diverse views on the proposed longitudinal study. Opponents of small class teaching considered that the professionalism of teachers was more important in enhancing the quality of teaching and learning in a class room setting. Although all public sector primary schools were provided with similar resources, some schools had managed to practise variable class size and group teaching strategies to enhance learning effectiveness. Given the resources constraints, the Administration considered it appropriate to conduct an in-depth case study on how schools might employ effective strategies of small class teaching and group learning to enhance teaching and learning effectiveness. The six-month survey at the first stage of the Study would identify the good practices of effective small and variable group teaching strategies adopted in some public sector primary schools for dissemination to other schools.

Findings of the first stage of the Study

12. The Administration subsequently briefed the Panel on 16 February 2004 on the preliminary findings of the first stage of the Study and the design framework for the second stage of the Study. Members were informed that not many suitable good practices of small class teaching could be identified in the first stage of the Study for dissemination to schools. Based on the findings of the first stage of the Study, the Administration concluded that to optimise the educational benefits of small class

teaching, teachers should be given professional support and the initiatives should be focused on students who were in greatest need for early intervention.

Need for the second stage of the Study

13. In the light of the findings in the first stage of the Study, the Administration decided to re-focus the second stage to try out small class teaching in some selected schools. In the second stage, participating schools would be given additional time-limited resources to operate small classes of about 25 students, starting at P1 and then proceeding to P2 for two consecutive cohorts. The students would return to regular classes at P3. The Administration would follow up the two cohorts of students longitudinally beyond P2 to see whether the benefits of small class teaching at P1 and P2 could be sustained as they moved up to higher levels, and whether they would compare favourably in terms of their affective and academic domains with students of similar background in other schools not participating in the Study. The second stage of the Study would last for four years and the Administration would consider the findings of the Study to determine the way forward for small class teaching.

14. Members queried the need to conduct the second stage of the Study when different parties, including the Administration, agreed that teaching in small classes would be better than in large classes if all other factors were equal. Members also criticised the limited scope of the Study as it covered only primary schools. There was concern that the outcome of the Study might be used by the Administration to justify a decision not to implement small class teaching. The Administration was requested to work out a timetable for progressive implementation of small class teaching in all public sector schools, instead of conducting the second stage of the Study in four years

15. The Administration explained that there were views in the education community that small class teaching was not necessarily the best way to improve the quality of education, and that the professionalism of teachers was more important. Many academics even considered that small class teaching was not cost-effective and suggested using the resources in other educational areas. Given the divergent views and the significant resources implications, the Administration considered it necessary to conduct the Study to ascertain the benefits of small class teaching in local school environment before deciding on the way forward. The Study would assess students' achievements on standard tests, improvements in learning behaviour and abilities to develop generic skills and higher order thinking skills. The Study would also link students' learning outcome to the teaching pedagogies and strategies for small class teaching. Should the results of the Study be positive, the Administration would draw up a timetable for progressive implementation of small class teaching in other schools.

Criteria for selecting participating schools

16. Members had sought information on the criteria proposed by the Administration for selecting participating schools. The Administration's intention was to identify around 40 schools with a sizeable portion of students of disadvantaged

background, such as new arrival from the Mainland and students receiving Comprehensive Social Security Assistance (CSSA). Members considered that to enhance its reliability and comprehensiveness, the Study should include a wide variety of primary and secondary schools with different teaching and learning characteristics, and cover different levels of classes and subjects.

17. The Administration explained that in proposing the selection criteria for participating schools in the Study, it had made reference to overseas experience, and aimed at identifying schools which could optimise the benefits of small class teaching. The findings of the Study would be less convincing if it covered a wide variety of schools with a few sample schools in each category. The Administration also advised that overseas studies had found that small class teaching would benefit students from socially disadvantaged families more. Given the fiscal deficits, the Administration considered it necessary to use the limited resources allocated for the Study in the most cost-effective manner.

Evaluation

18. Members noted that the implementation of small class teaching would hinge on the evaluation of the Study carried out by a Steering Committee only. Members considered it inappropriate to assess the Study on the basis of the performance of the participating schools with mainly band 3 students or new arrival children. Members also queried how the learning process and outcomes of students in the participating schools could be objectively assessed and compared with their counterparts in other schools.

19. The Administration explained that the Steering Committee would comprise two local academics and three primary school heads. The learning process and outcomes of students in the participating schools would be assessed by both quantitative and qualitative instruments. The Administration would provide school-based support and organize briefings and workshops for teachers before the commencement of the Study and at intervals throughout the Study. For evaluation purpose, the performance of the participating schools and their students would be assessed by comparison with other schools having a similar student enrolment. Apart from academic indicators, evaluation of the Study would also be made by way of questionnaires to be completed by schools, teachers, parents and students.

The proposed extension of the Study to primary schools with a high concentration of disadvantaged students

20. At its meeting on 13 June 2005, the Panel discussed the Administration's proposal to extend the Study to a number of selected schools with a high concentration of disadvantaged students. The meeting was attended by Professor Maurice GALTON of the Faculty of Education at the University of Cambridge in his capacity as the appointed consultant to the Study, members of the Steering Committee, representatives of some participating schools in the Study and academics in small class teaching.

21. Under the proposal, starting from the 2005-2006 school year, small class teaching would be implemented for selected schools with a high concentration, say 40% of students receiving CSSA or full grant under the Student Financial Assistance Scheme. It was estimated that some 75 primary schools would meet the 40% threshold.

22. While the attending deputations affirmed the positive effects of small class teaching, some expressed reservations about the proposal to extend small class teaching to schools with a high concentration of disadvantaged students. These deputations were concerned that such selection criterion would create adverse labeling effect on the selected schools. They also considered that all students should have equal right to quality education and equal opportunities to learn in small class.

23. The Administration explained that the proposal aimed to help the disadvantaged students and support the Government's pledge to alleviate inter-generational poverty. It had taken into account overseas research findings that small class teaching had more significant effects on students with weak family support. The Administration therefore considered it appropriate to provide additional support to schools with a large enrolment of students with weak family support. The Administration stressed that it would not disclose the names of the selected schools to avoid the unnecessary labeling effect.

24. Professor GALTON pointed out that according to the research findings in England, the benefits of small class teaching in schools with more students from low-income families were more significant than in schools with more students from middle-class or high-income families. As some schools received more private support than others, the Government in England allocated more resources to schools with less private assistance in order to create a level playing field.

25. On the progress of the existing Study, the Administration informed members that the Study was proceeding according to schedule, with 37 government and aided primary schools starting small class teaching in P1 as from the 2004-2005 school year. The final report of the Study would be completed at the end of 2008 and the appointed consultant would submit yearly interim reports between 2005 and 2007.

Interim findings of the Study

26. The Administration and Professor GALTON briefed the Panel on the interim findings of the Study at the meeting on 12 February 2007. Based on the first two years' data and observations, Professor GALTON provided the following preliminary analysis:

- (a) there was insufficient evidence to demonstrate that pupils in small classes fared better than their counterparts in regular classes in terms of academic performance, subject attitudes and motivation;

- (b) attempts were made to break down each attainment test into a number of 'generic skills' such as critical thinking, problem solving and creativity. Results regarding the impact of small class teaching on promoting these generic skills were not conclusive;
- (c) analyses of five schools with large numbers of disadvantaged pupils against the remainder showed that disadvantaged pupils did better under small class teaching in Chinese and Mathematics for Cohort 2, but this advantage was not replicated for Cohort 1. Cohort 1 were pupils studying in small class from P1 to P3 and would return to regular class in P4 in the 2007-2008 school year, and Cohort 2 were pupils studying in small class from P1 to P2 and would return to regular class in P3 in the 2007-2008 school year;
- (d) systematic classroom observations revealed signs, particularly among teachers of Chinese and Mathematics, that participant teachers were changing their practice in ways that resulted in higher levels of problem-solving questioning and a greater range of feedback responses, although, overall, there was little evidence of a dramatic change in teaching modes;
- (e) although it was widely believed that more individual attention could be given to pupils in a small class context, systematic lesson observation data showed low levels of individual attention that teachers provided for pupils in the small classes; and
- (f) the case studies observed that schools and teachers had not yet reached the stage where they were willing to take ownership for revising the curriculum in ways which maximized the advantages of having fewer pupils in the class.

Release of the interim report

27. Members questioned the validity of the observation that there was insufficient evidence to demonstrate that students in small classes fared better than their counterparts in regular classes in terms of academic performance, subject attitudes and motivation. Members pointed out that this observation was at variance with the experience shared by the schools participating in the Study. Members urged the Administration to release the interim report of the Study to facilitate their understanding of its design and methodologies.

28. The Administration stressed that the findings and observations of the Study were preliminary, and it had no intention to undermine the benefits of small class teaching through the preliminary findings. In order to maintain the independence of the Study and avoid unnecessary disturbances to the participating schools, the Education and Manpower Bureau (EMB) had all along adopted the practice of not disclosing the interim findings of research studies in progress. EMB would release the findings of the final report of the Study by the end of 2008.

Government's stance

29. Noting that the Chief Executive (CE) had pledged to implement small class teaching if he was re-elected for the Third Term, members considered it unnecessary to await the completion of the Study before deciding the way forward for small class teaching. As the benefits of small class teaching had been ascertained by operational experience, members urged the Administration to implement small class teaching immediately.

30. The Administration maintained the view that as a responsible Government in the use of public resources, it was necessary to conduct the Study to assess the benefits of small class teaching and identify the cost-effective ways to maximise the benefits of implementing small class teaching in the local context. The Administration also pointed out that CE was aware of the conduct of the Study and, so far, had not directed that EMB should implement small class teaching in all public sector schools.

31. On behalf of the Panel, the Chairman had written to CE enquiring whether he supported the implementation of small class teaching. In her reply to the Chairman, the Private Secretary to CE advised that CE considered that any decision to implement small class teaching in Hong Kong should be premised upon the actual benefits to students in the local context. Considering the significant long-term financial commitment and the scarcity of local experience in implementing small class teaching, the Administration needed to plan strategically to ensure that the investment into small class teaching was well made. The Administration would map out the way forward taking account of the outcome of the Study.

32. In response to a question at the Special Finance Committee meeting on 20 March 2007, SEM revealed that the cost of implementing small class teaching in primary and secondary schools would be about \$3.9 billion and \$6.7 billion respectively.

Relevant papers

33. A list of the relevant papers on the Legislative Council website is in the **Appendix**.

Appendix

Relevant papers on small class teaching

Meeting	Date of meeting	Paper
Legislative Council	15.7.1998	Official Record of Proceedings, Question 6 (Question)
Legislative Council	30.9.1998	Official Record of Proceedings, Question 20 (Question)
Legislative Council	14.10.1998	Official Record of Proceedings, Question 20 (Question)
Panel on Education	18.1.1999 (Item III)	Minutes Agenda
Legislative Council	19.12.2001	Official Record of Proceedings Pages 63 - 67 (Question)
Legislative Council	3.7.2002	Official Record of Proceedings Pages 69 - 77 (Question)
Legislative Council	13.11.2002	Official Record of Proceedings Pages 15 - 22 (Question)
Panel on Education	18.11.2002 (Item IV)	Minutes Agenda
Legislative Council	27.11.2002	Official Record of Proceedings Pages 83 - 143 (Motion)
Panel on Education	19.5.2003 (Item V)	Minutes Agenda
Panel on Education	16.6.2003 (Item IV)	Minutes
Legislative Council	3.12.2003	Official Record of Proceedings Pages 79 - 147 (Motion)
Panel on Education	16.2.2004 (Item III)	Minutes Agenda
Panel on Education	19.7.2004 (Item IV)	Minutes Agenda

Meeting	Date of meeting	Paper
Legislative Council	27.10.2004	Official Record of Proceedings Page 69 (Question)
Panel on Education	8.11.2004 (Item V)	Minutes
Legislative Council	2.12.2004	Official Record of Proceedings Pages 5 - 103 (Motion)
Panel on Education	13.6.2005 (Item IV)	Minutes Agenda
Legislative Council	8.6.2005	Official Record of Proceedings Pages 76 - 80 (Question)
Legislative Council	8.3.2006	Official Record of Proceedings Page 78 - 80 (Question)
Legislative Council	17.5.2006	Official Record of Proceedings Pages 70 - 74 (Question)
Legislative Council	21.6.2006	Official Record of Proceedings Pages 83 - 92 (Question)
Legislative Council	6.12.2006	Official Record of Proceedings Pages 33 - 38 (Question)
Legislative Council	24.1.2007	Official Record of Proceedings Pages 151 - 209 (Motion)
Panel on Education	12.2.2007 (Item IV)	Minutes Agenda
Finance Committee	20.3.2007	Administration's replies to Members initial written questions