

For discussion on 12 February 2007

## **LegCo Panel on Education**

### **Progress of the Study on Small Class Teaching**

#### **Purpose**

This paper reports the progress of the study on small class teaching (SCT) being conducted in 37 primary schools.

#### **Background**

2. Any decision to implement SCT should be premised upon the actual benefits which SCT may bring to students. In order to assess the benefits of SCT in the local context in terms of both academic and affective outcomes, and to identify the teaching strategies and support necessary for maximizing the benefits of SCT, the Education and Manpower Bureau (EMB) launched a longitudinal study on SCT (the Study) in the 2004/05 school year. We last presented to the Panel the progress of the Study on 13 June 2005.

#### **The Study**

3. The Study is progressing according to schedule, under the guidance of our consultant Professor Maurice Galton and the supervision of the Steering Committee comprising experienced academics and frontline educators. We have been collecting qualitative and quantitative data from the participating schools to assess the learning process and learning outcome of the first and second cohorts of Primary One (P.1) pupils admitted in the 2004/05 and 2005/06 school years respectively. In the 2006/07 school year, the two cohorts of pupils are studying in small classes at P.3 and P.2 levels respectively.

## Design of the Study

4. According to the study design, the first cohort of pupils has been studying in small classes from P.1 to P.3 inclusive and will return to regular classes in P.4 in the 2007/08 school year. The second cohort has been studying in small classes from P.1 to P.2 and will return to regular classes in P.3 in the 2007/08 school year. Such a design will enable us to assess the sustainability of the effects of SCT in the early years when these two experimental cohorts return to regular classes in P.4 and P.3 respectively and to compare the 2-year and 3-year small class effect (at the time when we commenced the Study, we originally envisaged that the two cohorts of students would both return to regular classes at P.3). The Study is scheduled for completion in end 2008. The study design is illustrated below:

School Year		Grade Level			
2004/05	(small class)	P.1			
2005/06	(small class)	P.1	P.2		
2006/07	(small class)		P.2	P.3	
2007/08	(regular class)			P.3	P.4

## Data Collection

5. The data collected include pupils' background and disposition as gleaned from two sets of questionnaires completed by parents and pupils respectively. A teacher questionnaire has also been used to collect teachers' views on the advantages of SCT and to identify any problems that may have arisen during implementation of SCT under the Study. In the 2005/06 school year, we have conducted systematic classroom observations of 134 lessons to record the frequency and nature of classroom interactions in all the participating schools. Standardized tests in Chinese, English and Mathematics administered at the beginning and end of a year have served to measure pupils' academic performance. To explore in greater depth the factors which either help or hinder the teachers in their attempt to modify existing classroom practice in ways that maximize the advantages of SCT, case studies in six out of the 37 participating schools have been conducted in early 2006 and will continue in 2007.

## Professional Support for Participating Schools

6. To bring out and evaluate the maximum effect of SCT in the local context, the EMB school support team has been providing teachers participating in the Study with professional training and support through seminars, workshops, study tours and learning circles. The team has also been visiting the participating schools for collaborative lesson planning and school-based workshops. In addition, the consultant has been conducting lesson observations regularly, sharing his views with schools and discussing with them the pedagogy they adopt. In the 2005/06 school year, Professor Galton and the school support team have paid a total of about 135 visits to the 37 schools to discuss their implementation plans, conduct collaborative lesson planning and school-based workshops, observe lessons to provide professional feedback and collect examples of good practices for sharing in workshops and sharing sessions. The professional training and support activities conducted in the 2005/06 school year are listed at Annex. Feedback from the schools on the support measures has been very positive.

## Findings and Observations

7. Since the Study is ongoing, it is premature to draw any firm conclusions based only on data collected so far. To give Members a general feel, the consultant's preliminary analyses based on the first two years' data and observations are summarised below:

- 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.
- 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 SCT on promoting these generic skills were not conclusive.
- Analyses of five schools with large numbers of disadvantaged pupils against the remainder showed that disadvantaged pupils did better under SCT in Chinese and Mathematics for Cohort 2, but this advantage was not replicated for Cohort 1.

- 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.
- Although it is 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.
- 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.

8. The consultant presented his preliminary analyses and observations to the Steering Committee and to the participating schools in late 2006. He also recommended to the schools strategies to improve the teaching and learning based on his observations and data analyses.

### **Implementation of SCT for Disadvantaged Students**

9. Pending completion of the Study, we have introduced a SCT Scheme for primary schools with a high concentration of disadvantaged pupils (the Scheme) with effect from the 2005/06 school year. Introduction of the Scheme took into account overseas research studies which indicated that SCT had more significant effects on students with weak family support and in their early years of schooling. Under the Scheme, primary schools with 40% of their P.1-P.3 pupils receiving Comprehensive Social Security Assistance or full grant under the Student Financial Assistance Scheme are provided similar resources and support as in the Study to implement SCT in P.1 to P.3. In the 2005/06 school year, 29 eligible schools participated in the Scheme. Since the pupil profile changes across years, the number of participating schools has increased to 48 in the 2006/07 school year.

10. The EMB school support team has also been providing professional training for schools participating in the Scheme, so as to support teachers in their attempts to adapt their existing classroom practice to the demands of the smaller classes. In developing a programme of professional development, the school support team builds upon their experience of working with schools in the Study. The team also visited each of the 29 schools at least twice to discuss their implementation plans, understand their support needs, conduct lesson observations and provide feedback. The professional training and support activities for the participating schools in the 2005/06 school year are listed at Annex.

11. We have also appointed Professor Maurice Galton to evaluate the Scheme alongside the Study. Data is collected from the 29 participating schools to supplement those in the Study. To facilitate comparisons, the same standardized tests and questionnaires used in the Study were adopted. Two cohorts of P.1 pupils admitted to the 29 participating schools in the 2005/06 and 2006/07 school years respectively are being tracked. The first cohort will be followed into P.3 and the second cohort into P.2 in the 2007/08 school year. Professor Galton will also use his visits to the schools to make a summative judgment of the changes taking place in the classrooms observed.

## **Way Forward**

12. We will continue to help schools participating in the Study and the Scheme to develop and try out effective teaching and learning strategies. The research team will also continue to collect data and information for analyses by the consultant. The evaluation will be completed by the end of 2008. The Administration will map out the way forward for SCT having regard to the outcome of the Study and our experience with the Scheme.

Education and Manpower Bureau  
February 2007

**Support / Training Programme for Schools Participating in  
the Study and the Scheme in the 2005/06 School Year**

<b>Time of Delivery</b>	<b>Support / Training for Schools Participating in the Study</b>	<b>Support / Training for Schools Participating in the Scheme</b>
July 2005		Half-day briefing on implementation of the Scheme by EMB and sharing on Shanghai experiences by teachers participating in the study tour in March 2005
September & October 2005	School visits to discuss schools' progress and provide advice	Familiarization school visits to align goals and understand support needs of schools
October 2005	Three identical half-day workshops on how to make use of questioning techniques to enhance pupils' thinking skills	
November 2005	In-service Teacher Education and Training (INSET) Day for the consultant to brief schools on the progress of the Study and to recommend improvement strategies; and for teachers of selected experimental schools to share good practices	Half-day seminar by the consultant on group work and other strategies that can be effectively deployed in a small class setting
December 2005 & January 2006	Two identical two-day workshops on how to conduct an interactive lesson	
February 2006		A half-day seminar by the consultant on 6 areas of pupil learning to be developed in small classes and an introduction on the theoretical framework governing the use of Assessment for Learning
January to May 2006	Intensive support in the form of school-based workshop and collaborative lesson preparation for schools upon request	School visits to observe lessons and provide feedback
February to June 2006	Learning Circles formed for Chinese, English, and Mathematics teachers of the participating schools to meet once a month to observe lessons at one another's schools, followed by review discussions facilitated by EMB's school support team	
April 2006	A study tour to Shanghai to visit exemplary schools practising small class teaching	
June 2006	A half-day sharing session on Shanghai experiences in small class teaching by teachers participating in the study tour in April 2006	