

Primary School

To be filled in by

Mathematics Education KLA Teacher

Survey on the Implementation of Key Learning Area Curricula in Schools 2003

The Curriculum Development Institute (CDI) of the Education and Manpower Bureau has commissioned the Division of Social Studies of City University of Hong Kong to conduct the captioned Survey. The information collected will be used to make decisions on how to support teachers and heads better in the implementation of the curriculum reform. Please fill out the questionnaire and pass it on to the School Head or the representative of your school on or before 28 July 2003.

The survey will be conducted in an anonymous manner. All the information collected will be **kept in strict confidence** and will be used only for the evaluation of the curriculum implementation. If you have any questions, please contact our Research Assistant, Ms Flora Fu, at 2788 9034. Thank you for your cooperation!

Please read the statements in this questionnaire carefully. Then check the appropriate box for your chosen answer or write down your answers in the space Provided.

Section A Aims and Strategies of School Curriculum Development

| 1. The statements below refer to the aims of the current school curriculum reform that schools should achieve within 10 years. To what extent do you agree with these aims? | Strongly Disagree | Disagree | No Opinion | Agree | Strongly Agree | Don't Know |
|--|-------------------|----------|------------|-------|----------------|------------|
| <p>Students will</p> <ul style="list-style-type: none"> • recognize their roles and responsibilities as members in the family, society and the nation; and show concern for their well-being • understand their national identity and be committed to contributing to the nation and society • develop a habit of reading independently • engage in discussion actively and confidently in English and Chinese (including Putonghua) • develop creative thinking and master independent learning skills (e.g. critical thinking, information technology, and self-management) • possess a breadth and foundation of knowledge in the eight Key Learning Areas • lead a healthy lifestyle and develop an interest in and appreciation of aesthetic and physical activities | | | | | | |

| 2. The statements below refer to the aims of the Mathematics Education Key Learning Area curriculum. To what extent do you agree with these aims? | Strongly Disagree | Disagree | No Opinion | Agree | Strongly Agree | Don't Know |
|--|-------------------|----------|------------|-------|----------------|------------|
| <p>Every learner</p> <ul style="list-style-type: none"> • should have ability to think, to inquire, to reason, to communicate, to solve problems, and to appreciate the aesthetic nature and cultural aspect of mathematics | | | | | | |

| | | | | | | |
|--|-------------------|----------|------------|-------|----------------|------------|
| 3. The statements below refer to the short-term (2002-06) focuses of curriculum development in the Mathematics Education Key Learning Area. To what extent do you agree with these focuses of development? | Strongly Disagree | Disagree | No Opinion | Agree | Strongly Agree | Don't Know |
| <p>Schools and teachers focus on</p> <ul style="list-style-type: none"> • discouraging students to do meaningless drilling • adapting the mathematics curriculum to cater for student diversities so as to help students to do projects, exploratory activities, consolidation/enrichment activities, etc • encouraging more teacher/student interactions in class • helping students develop a positive attitude towards mathematics learning • using diversified learning activities and tools to arouse students' interest in learning mathematics and to foster high-order thinking skills • using diversified assessments for improving learning and teaching | | | | | | |

| | | | | | | |
|--|-------------------|-------------|------------------|---------|--------------|------------|
| 4. Have you read the following key curriculum documents? If you have, to what extent do you find the documents helpful in implementing the Mathematics Education Key Learning Area curriculum reform in your school? | Have not yet read | Have read | | | | |
| | | Not Helpful | Slightly Helpful | Helpful | Very Helpful | No opinion |
| a) <i>Basic Education Curriculum Guide (Primary 1 – Secondary 3)</i> | | | | | | |
| b) <i>Mathematics Education Key Learning Area Curriculum Guide (Primary 1 – Secondary 3)</i> | | | | | | |
| c) <i>Mathematics Education Key Learning Area – Mathematics Curriculum Guide (P1-P6) (2000)</i> | | | | | | |
| d) <i>小學數學科教學資料冊 (第一輯) (2001)</i> | | | | | | |
| e) <i>小學數學科教學資料冊 (第二輯) (2002)</i> | | | | | | |
| f) <i>小學數學輔導教學 (2001)</i> | | | | | | |

5. Other views and suggestions for this section (Aims and Strategies of School Curriculum Development):

Section B Confidence and Competence in Implementing Curriculum Reform

| 6. As a teacher of the Mathematics Education Key Learning Area, - how confident are you in implementing the following strategies in your school? - how competent are you in implementing these strategies? | Confidence Level | | | | | Competence Level | | | | |
|--|--------------------|---|---|---|---|--------------------|---|---|---|---|
| | Low < ----- > High | | | | | Low < ----- > High | | | | |
| | 0 | 1 | 2 | 3 | 4 | 0 | 1 | 2 | 3 | 4 |
| a) Help plan a school-based curriculum to facilitate continuity across Kindergarten to Primary One | | | | | | | | | | |
| b) Help plan a school-based curriculum to facilitate continuity across Primary Six to Secondary One | | | | | | | | | | |
| c) Design appropriate learning tasks and activities to help students work towards the learning targets and objectives | | | | | | | | | | |
| d) Design projects in a single Mathematics subject, across the Mathematics or across KLAs to develop students' self-directed learning | | | | | | | | | | |
| e) Promote student learning through reading so as to enhance students' independent learning capabilities | | | | | | | | | | |
| f) Encourage students to read Mathematics reference books, magazines and journals | | | | | | | | | | |
| g) Incorporate civic and moral education into learning activities of this subject or KLA | | | | | | | | | | |
| h) Promote interactive learning through the use of information technology | | | | | | | | | | |
| i) Use effective teaching strategies to cater for learner diversity, e.g., make curriculum adjustment in the learning focus, learning materials, homework, and assessment | | | | | | | | | | |
| j) Use assessment and feedback to enhance learning and teaching | | | | | | | | | | |
| k) Adopt diversified modes of assessment to assess learning process and outcomes | | | | | | | | | | |
| l) Assign diversified homework according to the learning focus | | | | | | | | | | |
| m) Design exercises with emphasis on practicality and closely related to daily life situations | | | | | | | | | | |

| | Confidence Level | | | | | Competence Level | | | | |
|---|------------------|---|---|---|---|------------------|---|---|---|---|
| | Low <-----> High | | | | | Low <-----> High | | | | |
| | 0 | 1 | 2 | 3 | 4 | 0 | 1 | 2 | 3 | 4 |
| n) Provide learning materials as a means for students to acquire the mathematical concepts or master the skills | | | | | | | | | | |
| o) Create opportunities for students to learn from experience in real contexts (e.g. field observations, visits, and mathematics activities outside the school) | | | | | | | | | | |

7. Other views and suggestions for this section (Confidence and Competence in Implementing Curriculum Reform):

Section C Teachers' Professional Development

| | Very Inadequate | Inadequate | Adequate | Very Adequate | No Opinion |
|---|-----------------|------------|----------|---------------|------------|
| 8. Opportunities for teachers' professional development in different domains of curriculum development have been provided. To what extent do you find them adequate ? | | | | | |

| 9. Below are some ways to promote teachers' professional development in relation to curriculum reform. In your opinion, how effective are they in enhancing your professionalism? | Not Effective | Slightly Effective | Effective | Very Effective | No Opinion |
|---|---------------|--------------------|-----------|----------------|------------|
| a) Discussion among colleagues | | | | | |
| b) Collaborative lesson planning | | | | | |
| c) Peer observation | | | | | |

| | Not Effective | Slightly Effective | Effective | Very Effective | No Opinion |
|---|---------------|--------------------|-----------|----------------|------------|
| d) Action research | | | | | |
| e) Attending seminars and workshops | | | | | |
| f) Attending in-service teacher development courses | | | | | |
| g) Independent study | | | | | |
| h) Others (Please specify the way and extent of effectiveness): _____ | | | | | |

10. Other views and suggestions for this section (Teachers' Professional Development):

Section D Effectiveness of Learning and Teaching Strategies

| 11. Has your school implemented the following strategies in the learning and teaching of Mathematics? If yes, how effective do you think they are in enhancing student learning? | Not yet Implemented | Implemented, and it is | | | | |
|---|---------------------|------------------------|--------------------|-----------|----------------|------------|
| | | Not Effective | Slightly Effective | Effective | Very Effective | No Opinion |
| a) Design learning tasks and activities to help learners work towards the learning targets and objectives | | | | | | |
| b) Design a school-based curriculum following the direction of the central curriculum framework | | | | | | |
| c) Provide appropriate learning experiences to students as related to the five dimensions of Mathematics learning, development of generic skills, and positive values and attitudes | | | | | | |
| d) Adopt learning and teaching strategies to enhance students' mathematics competence | | | | | | |

| | Not yet Implemented | Implemented, and it is | | | | |
|--|---------------------|------------------------|--------------------|-----------|----------------|------------|
| | | Not Effective | Slightly Effective | Effective | Very Effective | No Opinion |
| e) Use effective teaching strategies such as making adjustment to learning focus, learning materials, homework and assessment to cater for learner diversity | | | | | | |
| f) Adopt diversified modes of assessment to provide feedback for improving student learning | | | | | | |
| g) Arrange appropriate assessment tasks to replace parts of tests and examination | | | | | | |
| h) Use a wide variety of quality print and non-print resources | | | | | | |
| i) Incorporate the learning through reading strategy in lesson design to enhance students' independent learning capabilities | | | | | | |

12. Other views and suggestions for this section (Effectiveness of Learning and Teaching Strategies):

Section E Factors Affecting the Curriculum Reform

| 13. To what extent are the following factors helpful in implementing the Mathematics Education curriculum reform in your school? | Not Helpful | Slightly Helpful | Helpful | Very Helpful | No Opinion |
|--|-------------|------------------|---------|--------------|------------|
| a) Students' interest in learning mathematics | | | | | |
| b) Students' applicability of mathematics | | | | | |
| c) Parents' understanding on diverse mode of assessment | | | | | |
| d) Fundamental training in mathematics for more teachers | | | | | |
| e) Teachers' understanding on students' learning ability | | | | | |

| | Not Helpful | Slightly Helpful | Helpful | Very Helpful | No Opinion |
|--|-------------|------------------|---------|--------------|------------|
| f) More spaces for curriculum adjustment and utilization of “spare time” | | | | | |
| g) More experience sharing on the learning and teaching of mathematics | | | | | |

| 14. Have the following factors hindered, helped or not affected the implementation of the Mathematics Education curriculum reform in your school? | Serious Hindrance | Slight Hindrance | No Effect | Of Some Help | Of Great Help | No Opinion |
|---|-------------------|------------------|-----------|--------------|---------------|------------|
| a) Understanding among teachers about the aims of the curriculum reform | | | | | | |
| b) Coordination among various reforms implemented in schools in recent years | | | | | | |
| c) The pace of curriculum change/reform | | | | | | |
| d) Resources (e.g. manpower, funding) | | | | | | |
| e) Leadership of the School Head | | | | | | |
| f) Attitude of parents | | | | | | |
| g) Teachers’ workload | | | | | | |
| h) Students’ adjustment to the teaching approaches promoted in the curriculum reform | | | | | | |

15. Other views and suggestions for this section (Factors Affecting the Curriculum Reform):

Section F Impact of the Implementation of the Mathematics Education Curriculum Reform

| 16. To what extent do the students benefit from the implementation of the Mathematics Education curriculum reform in your school? | Not Significant <-----> Very Significant | | | | |
|---|--|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 |
| a) Students' motivation and interest in learning Mathematics are enhanced | | | | | |
| b) Students' communication skills are enhanced | | | | | |
| c) Students' critical thinking skills are enhanced | | | | | |
| d) Students' creativity is enhanced | | | | | |
| e) Students' ability in using mathematics to solve problems is enhanced | | | | | |
| f) Students' ability to express their views clearly and logically in mathematical language is enhanced | | | | | |
| g) Students' ability in using number and symbol is enhanced | | | | | |
| h) Students' spatial sense is enriched | | | | | |
| i) Students' capability of appreciating the aesthetic nature and cultural aspect of mathematics is enhanced | | | | | |
| j) Students' overall capability in mathematics is enhanced | | | | | |
| k) Students' positive values and active attitudes are developed | | | | | |

| 17. How far have you benefited in your own professional development from implementing the Mathematics Education curriculum reform in your school? | Not Significant <-----> Very Significant | | | | |
|---|--|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 |
| a) Subject knowledge is enhanced | | | | | |
| b) Teaching strategies are enhanced | | | | | |
| c) Knowledge about curriculum development is enhanced | | | | | |
| d) Skills for developing and evaluating the school-based curriculum are enhanced | | | | | |
| e) Skills for developing assessment strategies are enhanced | | | | | |

18. Other views and suggestions for this section (Impact of the Implementation of the Mathematics Education Curriculum Reform):

Section G Personal Particulars

| | | | | |
|--|-----------------|---|----------------------------------|---------------|
| 1. a) Total number of years of teaching: | | | | |
| 0 –5 years | 6 – 10 years | 11 – 15 years | 15 years or above | |
| b) Total number of years of teaching in this school: | | | | |
| 0 –5 years | 6 – 10 years | 11 – 15 years | 15 years or above | |
| c) Total number of years of teaching in the subject: | | | | |
| 0 –5 years | 6 – 10 years | 11 – 15 years | 15 years or above | |
| 2. Qualifications (multiple options acceptable) | | | | |
| Teacher’s Certificate | | Advanced Certificate in Teacher Education | Bachelor’s Degree | |
| Postgraduate Diploma/ Certificate of Ed | | Master’s Degree | Doctoral Degree | |
| Others(Please specify): _____ | | | | |
| 3. Teacher training (multiple options acceptable) | | | | |
| Chinese Lang Ed | English Lang Ed | Mathematics Ed | Science Ed | Technology Ed |
| General Studies | Arts Ed | Physical Ed | Personal, Social & Humanities Ed | |

Section H Additional Comments

1. In your opinion, what additional measures will facilitate the implementation of the Mathematics Education curriculum reform?

2. In your opinion, what other obstacles will hinder the implementation of the Mathematics Education curriculum reform?

3. With regard to the implementation of the Mathematics Education curriculum reform, what insights would you like to share?

4. Other comments/recommendations:

~ End of Questionnaire. Thank you ! ~