

## PRACTICAL BEGINNING FOR A CHILD-CENTERED MATHEMATICS PROGRAM

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A report of an elementary general session at the Annual Mathematics Conference, held in Red Deer - by Mary Beaton

Dr. MacLean gave an illustrated presentation including a statement of the objectives of a child-centered program. The mathematics teacher needs to diagnose the level of understanding reached by his pupils and use appropriate activities to raise this level. At the elementary level, many materials such as cupcake tins, home-made balances, a trundle wheel and ruler can be assembled and used by the children in solving real-life problems. In one classroom, the mirror from the nurse's room was used on a table for studying notions of symmetry. The overhead projector can be used effectively by the children after they have made their own transparencies.



Ontario teachers at a workshop

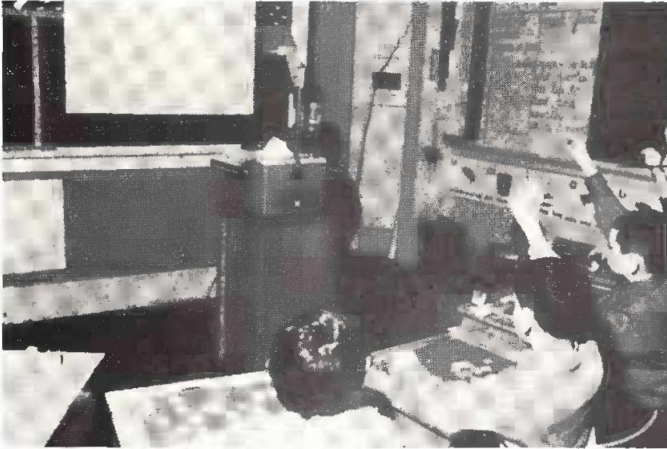
The oral approach should be emphasized. Each child should have an opportunity to report to a group or to the class on how he has solved a problem or how he has constructed a polyhedron.

The pictorial approach is also useful. In one class, the children were discussing their pets. After each child had drawn a picture of his pet, the group went on to tally the number of pets of each kind represented. This led to the development of a histogram.



A group of students constructing polyhedra

If each child's work is displayed, the material on the



The overhead projector used by a student in group discussion

bulletin board will be constantly changing.

Dr. MacLean emphasized that evaluation will frequently occur during discussion with individual pupils in the child-centered approach. Samples of work can be retained for parent examination.

Dr. MacLean has visited classes where children cannot wait to get to school in the morning and have to be driven out at four o'clock. He believes enthusiasm is the greatest generator of ideas.

#### AN ABSTRACT OF A STUDY OF THE RELATIONSHIP BETWEEN SELECTED ACTIVITIES FOR TEACHER PREPARATION AND STUDENT ACHIEVEMENT IN GRADE IX MATHEMATICS

Morgan Johnson, Calgary

Of interest to teachers, and to those groups concerned with the education of teachers, is a continuing assessment of the effectiveness of programs which are alleged to contribute to teacher effectiveness. As yet, conclusive answers to questions in this area appear to be far away. Mr. Johnson's research attempted to come to grips with certain aspects of this problem with reference to preparation for the teaching of a specific mathematics program. Some of his conclusions confirm, and some appear to contradict, other research findings in the same general problem area. Perhaps his most encouraging finding is the positive relationship between "teacher effectiveness" and participation in professional development activities.

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