



Mathematics Council NEWSLETTER

The Alberta Teachers' Association

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From the Editor

by Art Jorgensen

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The following article, with some minor modifications, is reprinted from The Illinois Mathematics Teacher, Vol. 39, No. 3, September 1988, pp. 23-24. I believe it has some real significance for mathematics education, not only in Alberta, but in all of Canada.

Setting a National Objective by Elaine Qadeem

Those public school educators involved with the teaching of mathematics in the daily school curriculum are now being bombarded with comparisons of the Canadian school system to the records (and claims) of achievement in the Asian world, especially Japan.

Our various school systems are under a mandate (official and unofficial) to correct this situation. Some of the proposed solutions have been "an utilization of math specialists in the elementary schools, a reevaluation of our content goals in mathematics so that students can move more quickly into more advanced material, a reevaluation of teacher certification guidelines, increasing expectation in math performance on the part of teachers and parents, greater involvement on the part of the parents in the instructional process and increasing the amount of time math teachers have for preparation." (The Illinois Mathematics Teacher, 1987, p. 4.)

Our focus on updating the instructional quality in our schools should not be based on the assumption that historically good and appropriate mathematical instruction has not been performed in Canadian schools, and that our country's math standards are in a global race with Norway, West Germany and Japan. When we compare Canada's national population to other far less pluralistic societies, our mandate for free public education for citizens in 10 different provinces far outstrips the control of public education in any nondemocratic monocultural island nation. Our nation of immigrants and migrants is far more diverse in languages, customs, religions and economic strata than any other nation in the developed world. Therefore our system(s) is/are and will be different, but not necessarily lacking.

HAPPY
Holidays

We allow our young students beyond the elementary school level to choose their involvement in the arts and sciences. We do not push them to produce (by federal mandate) so many ballerinas, engineers, computer specialists or "X" number of doctors by a given year. Certain ethnic groups within Canada may do this, but to date our constitution negates this type of occupational selection and tracking.

The mandate for the teaching and application of mathematics is not only for the educational community to consider and act upon. As we as a nation continue to explore our possibilities for national improvement in education, more rhetoric should address "problem solving" skills as an integral part of any "new" math objective. "Canadian schools changed radically in the 1960s and '70s in reaction to the launching of the satellite Sputnik by the Soviet Union. The fear that the Canadian education was inferior to the Soviet system led to a number of experimental approaches in several subjects." (The State Journal Register, March 1987, p. 11.)

Out of these fears, school systems often reacted instead of planned. Most of those experimental ideas are accumulating dust in our school storage rooms. Now, we are ready for more innovations in reaction to our myopic global view. We should be careful this time to accomplish what we need as a nation first, and address our competition with the international community, second.

The statistics and scores are in. Our skill in mathematics is lacking. But why not give this problem the national media attention that our citizens are accustomed to? Incentives in the workplace, a national math illiteracy alert (similar to the one we've gotten on reading illiteracy) and a math fitness program sanctioned by media personalities all seem appropriate at this time. These publicity gestures would certainly underscore the mandate that educators have been legislated to fulfill. And perhaps, in a simplistic way, get the Canadian public's attention. If we get their attention, there is an increase in the probability that we can get their tax support. Our Canadian educational system is in dire need of support, not comparison.

1989/90 MCATA Executive

The MCATA board is looking for practicing teachers who are interested in serving on the executive. If you know of a teacher who would be interested in serving on the executive, or if you would like to serve, please contact Past President Robert Michie at 230-4743 (bus.) or 246-8597 (res.).

Upcoming Inservice

The University of Lethbridge is hosting a Junior High School Math Workshop from July 31 to August 11, 1989. Under the direction of John Percevault, the workshop will focus on the effective implementation of the new junior high school mathematics curriculum. From reports received, the 1988 workshop participants were very satisfied.



Parody

by Ronald Cooknell

Psalm 23 and 121

The Principal is my shepherd; I shall not want to see him.
He maketh me come down to the office,
and leadeth me beside his desk;
he starteth a pain upon my right hand.
The blood shall not circulate for a day nor a night.
As I walk through a still hallway
I feel a new person, for he hath saveth me
from the evil forces of laziness.

1988 MCATA Conference a Success

A very special thanks to Al Olson and his various committees for organizing an excellent conference. The displays must be commended for the worthwhile exhibits, and the social activities were very well organized. Over 60 sessions were presented and were attended by nearly 700 registrants. It was gratifying to see so many of you partaking in the conference. I hope that each of you found or heard something worthwhile that you can use.

Upcoming Conferences

Now that the 1988 conference is history, it is time to start thinking about the future and to start planning for 1989 and 1990.

- The 1989 MCATA Conference will be held in Lethbridge from November 2 to 4, 1989, and will focus on the theme "Directions for the '90s." If you have ideas for sessions, of presenters or the organization, or if you would like to make a presentation yourself, please contact Conference Chairperson Dennis Burton by telephoning 328-9606 (bus.) or 327-2222 (res.).
- The year 1990 will be very special because Alberta will host a National Council of Teachers of Mathematics (NCTM) Regional Conference at the Calgary Convention Centre from October 25 to 27. If you have ideas for the organization or the program, contact Conference Chairperson George Ditto or Program Chairperson Lois Marchand by telephoning 294-6306.
- The 1989 NCTM Annual Conference will be held in Orlando, Florida from April 12 to 15. The theme is "Visions for the World of School Mathematics." I apologize for listing the wrong dates in the last newsletter.



Suggested Reading and Resource Materials

Are you looking for something interesting and challenging for those bright students? How about these?

Engineering Project Book

JETS Program Aids, a book from the Junior Engineering Technical Society (JETS), offers teachers a reference for student projects, interesting competitions and activities for fun as well as research.

One set of competitions, in engineering design, emphasizes team participation in designing, building and testing workable models. These activities stress creativity in meeting design parameters and overcoming the limitations of materials.

Another set of competitions, stressing problem solving, has a "pen and paper" approach to the technical, economic and social aspects of engineering problems. These competitions use research, investigation, technology assessment, decision making and communication skills. The book also describes "mini-projects" designed to be completed during a two-hour class period.

The book is available for \$5 from the Junior Engineering Technical Society, 1420 King Street, Suite 405, Alexandria, Virginia 22314-2715.

New Publications

Stories of Excellence: Ten Case Studies from a Study of Exemplary Mathematics Programs and Providing Opportunities for the Mathematically Gifted, K-12 are new publications from NCTM that look at excellence in students and in mathematics programs.

Stories of Excellence cites factors that are important in attaining excellence. These factors include effective leadership, careful decisions about the curriculum and its implementation, and teachers and their teaching. The ten geographically scattered schools in this study were selected because they manifest these elements. A brief overview of each school, the philosophy of the leadership and a glimpse of its curriculum are included in the studies. ISBN 0-87353-236-8.

Providing Opportunities for the Mathematically Gifted, K-12 helps in identifying the gifted, understanding them and providing alternatives for nurturing their giftedness. Guidelines for initiating programs for the gifted and exemplary programs for the gifted in mathematics are also examined. ISBN 0-87353-239-2.

These books are available from the NCTM for \$9 each (prepaid).

ATA Library

The ATA Library is an excellent source of reference material that is often overlooked. A copy of The Book Book (ATA Library Catalogue) is prepared biennially and distributed to all schools. New materials are constantly being added.

You can borrow material from the ATA library by telephoning 453-2411 (from Edmonton), 263-4774 (from Calgary) or 1-800-232-7208 (from elsewhere in Alberta), or by writing or visiting the library at 11010 142 Street, Edmonton, Alberta T5N 2R1.

Bibliographies are available on adolescents, children at risk, early childhood education, educational administration, effective schools, exceptional children, language arts, learning styles, multicultural education, parents and teachers, physical education, reading, science, staff development, teaching thinking skills, teaching today and writing.

Proposed Changes in Achievement Testing

At the September 17, 1988, executive meeting, Dennis Belyk, from the Student Evaluation and Records Branch of Alberta Education, outlined proposed changes in achievement testing. After circulating a copy of the document to the MCATA executive, he discussed the key points. The following statement is a brief summary of his presentation:

Alberta Education is pleased to announce the development of diagnostic materials for Grades 7 to 10. Marie Hauk, MCATA vice-president, has been seconded to help develop these materials.

- Achievement tests were developed to provide feedback to teachers and administrators regarding programs in their schools. They were not developed to be watchdogs.
- Changes are proposed at the feedback level. The results of this action will benefit the teachers. The Student Records Branch is also looking for data to compare achievement over time.
- An area of concern is the use and/or misuse of the information. The tests were not developed to evaluate teachers.

A document explaining enhancements to achievement tests will be mailed to teachers and parents throughout the province. Questionnaires will be forwarded to teachers in Grades 3, 4, 6, 7, 9 and 10.

The MCATA executive has prepared a reaction statement to this presentation, which has been submitted to Provincial Executive Council (PEC). PEC's reaction to the statement will be published in a forthcoming newsletter.



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