Selected Writings from the Journal of the Mathematics Council of the Alberta Teachers' Association: Celebrating 50 years (1962–2012) of delta-K

Edited by Egan J Chernoff, University of Saskatchewan and Gladys Sterenberg, Mount Royal University

A volume in the series The Montana Mathematics Enthusiast: Monograph Series in Mathematics Education. Series Editor: Bharath Sriraman, The University of Montana

The teaching and learning of mathematics in Alberta-one of three Canadian provinces sharing a border with Montana-has a long and storied history. An integral part of the past 50 years (1962-2012) of this history has been delta-K: Journal of the Mathematics Council of the Alberta Teachers' Association. This volume, which presents ten memorable articles from each of the past five decades, that is, 50 articles from the past 50 years of the journal, provides an opportunity to share this rich history with a wide range of individuals interested in the teaching and learning of mathematics and mathematics education. Each decade begins with an introduction, providing a historical context, and concludes with a commentary from a prominent member of the Alberta mathematics education community. As a result, this monograph provides a historical account as well as a contemporary view of many of the trends and issues in the teaching and learning of mathematics. This volume is meant to serve as a resource for a variety of individuals, including teachers of mathematics, mathematics teacher educators, mathematics education researchers, historians, and undergraduate and graduate students. Most important, this volume is a celebratory retrospective on the work of the Mathematics Council of the Alberta Teachers' Association.

CONTENTS: The MCATA Constitution. Foreword: Marj Farris and Florence Glanfield. Preface: Egan Chernoff and Gladys Sterenberg. Introduction: Gladys Sterenberg and Egan Chernoff.

1960s. The '60s—Eventful and Memorable, Werner Liedtke. Geometry, L. W. Kunelius. "Polyan" Mathematics, H. F. McCall. Overview of Change: Or a Look at the Forest Before We Can't See It for the Trees, E. A. Krider. Can High School Students Learn Some of the Concepts of Modern Mathematics? Nora Chell and W. F. Coulson. Discovery or Programming, William F. Coulson. What Is Modern Mathematics? Elizabeth Caleski. A Coordinated Review of Recent Research Conducted in the Department of Elementary Education University of Alberta Relevant to Mathematics Education, W. G. Cathcart and W. W. Liedtke. Using the Overhead Projector: Some Random Notes, Murray R. Falk. Some New Math in Old Ruts, H.L. Larson. Reading in the Field of Mathematics, R. W. Cleveland. Commentary: Mathematics Teaching and Learning in the 1960s as Reflected in delta-K, Tom Kieren.

1970s. Introduction to Mathematics Teaching and Learning in the 1970s, Klaus Puhlmann. Mathematical Preparation of Alberta Math Teachers, Donald O. Nelson. The Current Status of High School Calculus, Murray R. Falk. "New Math" Sparks Lively Debate, What is CAMT? H. J. Promhouse. More To It Than You Think, Marion Loring. 4 Kilograms of Hamburger and a Liter of Milk Please, S. A. Lindstedt. The Teaching and Learning of Secondary School Mathematics, H. W. Van Brummelen. Basics in Junior High, Bernie Biedron. Thanks for Your Response: Editor's Report on Calculator Questionnaire, Ed Carriger. Constructive Rational Number Tasks, T. E. Kieren. Commentary: Mathematics Education in the 1970s: A Retroperspective, David Pimm.

1980s. Mathematics Education in Alberta in the 1980s, Len Bonifacio. Statistics in the High School, Dennis G. Haack. An Alternative Course for the "I Hate Math and I've Never Been Any Good At It" Student, Elaine V. Alton and Judith L. Gersting. Expecting Girls to Be Poor in Math: Alternatively, Chance for a New Start, Gordon Nicol. A Constructivist Approach to Teaching Mathematics, Sol E. Sigurdson. If This Is Television, Shouldn't My Intelligence Be Insulted? Kate Le Maistre. Logo: An Opportunity for Synthesis, Self-Control and Sharing, J. Dale Burnett. Readability: A Factor in Textbook Evaluation, Yvette M. d'Entremont. Combining Literature and Mathematics: Making Math Books and Finding Math Concepts in Books, Bernard R. Yvon and Jane Zaitz. Psychology in Teaching Mathematics, Marlow Ediger. The Development of Problem-Solving Skills: Some Suggested Activities (Part II), John B. Percevault. Commentary: 1980s: An Agenda in Action, A Decade of Change, A. Craig Loewen.

1990s. The Dawn of the Information Age, Darryl Smith. It's All Greek to Me: Math Anxiety, Darlene Hubber. Moving Out of the Comfort Zone, Marie Hauk and Bryan Quinn. Learning About Computers and Mathematics: A Student Perspective, Craig M. Findlay, Building a Professional Memory: Articulating Knowledge About Teaching Mathematics, Barry Onslow and Art Geddis. Enhancing Mathematics Teaching in the Context of the Curriculum and Professional Standards of the National Council of Teachers of Mathematics, Klaus Puhlmann. Computers in Classrooms: Essential Learning Tool ... or Program for Disaster? Alison Dickie. Mathematics as Problem Solving-A Japanese Way, Daiyo Sawada. Western Canadian Protocol: The Common Curriculum Framework (K-12 Mathematics), Hugh Sanders and Gina Vivone-Vernon. Multiculturalism and Equities Issues: Selected Experiences and Reflections, Werner W. Liedtke. Implementing Manipulatives in Mathematics Teaching, A. Craig Loewen. Commentary: delta-K in the 1990s: Learning Mathematics with Meaning, Elaine Simmt.

2000s. Some Mentions in the Aughts, Mark Mercer. Enhancing Numeracy in the Early Years, Werner W. Liedtke. Teaching Mathematics for Peace, David Wagner. Emergent Insights into Mathematical Intelligence from Cognitive Science, Brent Davis. Secondary Mathematics Education Curriculum Developments: Reflecting on Canadian Trends, Florence Glanfield. Noticing as a Form of Professional Development in Teaching Mathematics, Julie S. Long. Textbooks in Mathematics Learning: The Potential for Misconceptions, Ann Kajander and Miroslav Lovric. Rationale Gone Missing: A Comparative and Historical Curriculum Search, Lynn McGarvey. Perceptions of Problem Solving in Elementary Curriculum, Jennifer Holm. To Become Wise to the World Around Us: Multiple Perspectives of Relating Indigenous Knowledges and Mathematics Education, Gladys Sterenberg, Liz Barrett, Narcisse Blood, Florence Glanfield, Lisa Lunney Borden, Theresa McDonnell, Cynthia Nicol, and Harley Weston. Developing Inquiry-Based Teaching Through Lesson Study, Olive Chapman, Krista Letts, and Lynda MacLellan. Commentary: Mathematics Education for the Twenty-First Century, Olive Chapman. Final Commentary: Looking Back on Our Selected Writings from Fifty Years of delta-K, Egan Chernoff and Gladys Sterenberg.

Publication Date: 2014

ISBNs:

Paperback: 9781623967000 Hardcover: 9781623967017 E-Book: 9781623967024

Price:

Paperback: \$45.99 Hardcover: \$85.99

Trim Size: 6.125 X 9.25 Page Count: 492 Subject: Education, Mathematics, International

BISAC Codes: EDU000000 EDU029010 EDU037000