



and the

Twenty-seventh Annual Conference

of the

Research Council on Mathematics Learning

March 9-11, 2000

THURSDAY (March 9, 2000)

Thursday, 8:00 a.m.-12:00 p.m. Boardroom

RCML Executive Board meeting

Thursday, 12:00 p.m.-5:30 p.m. Hallway

Registration

Thursday, 4:00 p.m.-5:30 p.m. Coney Island B & C

Cash Bar Reception

Thursday, 5:30 p.m.-7:00 p.m. Coney Island B & C

1. Keynote

Dr. Pearl Brewer
Professor and Associate Dean for Academic Affairs, UNLV
*Understanding How Gaming Technology Works or
"OK, What Machine Should I Play?"*

Thursday, 7:00 p.m. Dinner on your own or in small groups

FRIDAY (March 10, 2000)

???-7:45 a.m. Breakfast in the Surf Buffet

Friday, 8:00 a.m.-9:00 a.m. Coney Island A

2.

Welcome

Dr. Gene Hall, Dean, UNLV College of Education

Founders' Lecture

Sponsored by John Wiley and Sons, Publishing Co.

Dr. Jane McCarthy --(At Risk)

Director, Accelerated Schools Project Satellite Center,
UNLV

*Who's Coming to School? The Impact of Diversity
on Mathematics Education*

Friday, 9:10 a.m.-10:00 a.m.

- ~~3.~~ Preservice Teachers' Success on Items Related to Middle School Mathematics: The Influence of Course Taking and Reasons for a Prevalent Misunderstanding
Anna O. Graeber Coney Island A
4. Beliefs about Mathematics and Pedagogy Held by Preservice and Inservice Teachers in the Northwest Georgia Area as Measured by the "Standards Belief Instrument" (SBI)
Carla Moldavan, Donald J. Sparks, and Lelia C. Mullis Coney Island B
5. Learning Mathematics with Technology
Azita Manouchehri, Mary Enderson, and Lyle Pagnucco Boardroom
6. What Makes a Good Mathamatics Problem? Perceptions and Cognitive Change in Preservice Elementary School Teachers
Esther M. Huntzinger Billings and Dave Klanderma Coney Island C
7. A Study of Preservice Teachers' Metaphors for Mathematics Learning
Stacy Reeder and Darlinda Cassel BCR 271
8. Who's Coming to School?...Question and answer period
Jane McCarthy BCR 272
- ~~9.~~ An Analysis of the Error Patterns of Developmental Students, Preservice Elementary Teachers, and Inservice Teachers
Barbara Rives BCR 275
10. Early Field Experience: Applying Assessment and Instruction in a Tutoring Case Study
Ann R. Crawford BCR 276

Friday, 10:00 a.m.-10:15 a.m.

Coffee Break

Hallway

Friday, 10:15 a.m.-11:05 a.m.

11. Case Study of Teaching Fractions in Fourth Grade
Carol Novillis Larson Coney Island B
12. The Organocentric Curriculum: Learning and Assessment in Dynamic Learning Communities
Jayne Fleener Coney Island C
13. Texas Collaborative for Excellence in Teacher Preparation Project
Harriet Lamm, Diana S. Perdue, and Pam Littleton Boardroom
14. Project TEACH: The Community College's Role in Teacher Education
Steve Kinholt and Christie Gilliland BCR 271

15. Working from the Paradigms: Incorporating Worldview Ideologies into Mathematics Education
Terri Teal Bucci BCR 272
16. Learning to Line Up: Case Studies from the Fractions Institute for Teachers (FIT)
Sheryl A. Maxwell BCR 275
17. What Do We Know About What Happens to Learning in Distance Learning?
Lynae Sakshaug BCR 276

Friday, 11:10 a.m.-12:00 p.m.

18. Economics Students' Misconceptions of Mathematics Concepts
Pat Lamphere Jordan and Jon Willner Coney Island C
19. Computerized Mathematics
Cynthia Glickman Boardroom
20. Mathematics, Literacy, and Technology: One Part of an Early Childhood Teacher Education Technology Infusion Plan
Kay A. Wohlhuter BCR 271
21. Pre-service Teachers' Misconceptions about Various Geometry Topics
Robin A. Ward BCR 272
22. Connecting Mathematics and Art
Virginia Usnick BCR 275
23. Oklahoma Teacher Education Collaborative
Sandy Scaffetta Johnson BCR 276

Friday, 12:00 p.m.-1:45 p.m. Coney Island A

Lunch and RCML Annual Meeting

Friday, 2:00 p.m.-2:50 p.m.

24. Least Common Multiple, Reversibility, and How Secondary Mathematics Majors and Elementary Majors with an Emphasis in Mathematics Reasoned (or Not)?
Melfried Olson Coney Island B
25. Mathematical Beliefs of Students Entering Teacher Education
Don Wiken and Roger Ray Parsons Coney Island C
26. Mentoring Beginning Math Teachers
Sue Brown Boardroom
27. Preservice Teachers' Learning the Use of Manipulatives to Teach Fractions and Decimals
Enrique Ortiz BCR 271
28. Progress & Problems in Geometry for Elementary Teachers
David E. Boliver BCR 272
29. Investigating Probabilistic Understanding of Preservice Elementary Teachers
Robert J. Quinn BCR 275
30. Fair Discrete Probability/Statistics
John J. Edgell, Jr. BCR 276

Friday, 3:00 p.m.-3:50 p.m.

31. Inservice-Preservice Connections for Teacher Change
Daniel J. Brahier, Marsha Williams, Kathy Albers, and Stephanie Maloney Coney Island A
32. Continuing Support for the Mathematical Development of More Able Younger Students
Anne Reynolds Coney Island B
33. Reflections on Project 2061 Mathematics Textbook Analyses
Mary Ellen Foley and Sue P. Reehm Coney Island C
34. The Effect of Teacher Actions on Student Beliefs about Mathematics
Diana S. Perdue Boardroom
35. Pre-service Secondary Mathematics Teachers' Attitudes About the History of Mathematics
Kelly Marie Sullivan BCR 271
36. Embedding Clinical Process in a Technology-driven Classroom
George A. Pattison III-Wyer BCR 272
37. Reaching Out to At Risk Kids: A Service Learning Project for Preservice Teachers
Kay Wall BCR 275
38. Pre-service Pre-methods Elementary Teachers' Interpretation of Young Children's Reasoning
Jodelle S. Wuertzer Magner BCR 276

Friday, 3:50 p.m.-4:15 p.m.

Snack Break

Coney Island A

Friday, 4:15 p.m.-5:30 p.m.

Coney Island A

39. John Wilson Memorial Address
 Dr. Dan Leeson, Retired IBM Executive,
 Adjunct Instructor of Mathematics,
 De Anza College, Cupertino, CA
Was Mozart a Mathematician?



Conference Committee *My*

Friday, 5:30 p.m.--??? Dinner on your own.

SATURDAY (March 11, 2000)

???-8:00 a.m. Breakfast in the Surf Buffet.

Saturday, 8:10 a.m.-9:00 a.m.

- 40. Teacher as Learner, Designer and Researcher: The Impact of the NCTM Reform on K-4 Educators (1990-1999)
Lynn Cowen, Tanutda Devine, Lisa Farmer, Lawrence Svec, and Roland Pourdavood Coney Island A
- 41. Constructivist vs. Traditional Methods of Teaching Young Children Mathematics
Martie Gibson and Gene Geist Coney Island B
- 42. The Relationship Between Mathematics and Music Training
Kathryn S. Reinke and John Reinke Coney Island C
- 43. Native Americans Count Too: Mathamatics in Traditional Shoshoni Culture
Jim Barta and Ed Galindo Boardroom
- 44. Making Mathematics Meaningful
Ramakrishnan Menon BCR 271
- 45. Algebraic Thinking K-8: A Year Long Program
Winifred A. Mallam BCR 272
- 46. The Marriage of Mathematics and Psychology in Gaming
William Speer BCR 276

Saturday, 9:10-10:00 a.m.

47. **How Do Middle-grade Students Learning from Standard-based Mathematics Curricula Perform on the State Mathematics Assessment?**
Robert Reys, Greg Holliday, Richard Lapan, Barbara Reys, and Dee Wasman Coney Island A
48. **Views from the Field: Perspectives of a Junior Year Integrated Mathematics Methods and Accompanying Field Experience**
Sandra Sue Holzwarth, Sandy Taylor, and Judith Olson Coney Island B
49. **Analytic Scoring of Student Work on Problem-solving Tasks**
James R. Olsen Coney Island C
50. **Technology for All Students: Appropriate Activities for Regular and Exceptional Students**
Dixie Metheny and Marjorie Harpold Boardroom
51. **GT's Comments about "A Gebra Named AI"**
Carolyn L. Pinchback BCR 271
52. **Making Instructional Decisions: Is it Ever Okay to Tell?**
Ellen Hines BCR 272
53. **Successful Mathematics Educational Programs with a Curriculum Focus**
Roberta Gehrmann BCR 276

Saturday, 10:00 a.m.-10:15 a.m.

Coffee Break

Coney Island A

Saturday, 10:15-11:05 a.m.

54. **Algebra Beliefs: Contrast in Pre-collegiate and Collegiate Faculty**
Johnny W. Lott and David R. Erickson Coney Island A
55. **Multicultural Literature As A Context for Mathematical Problem Solving: Children and Parents Learning Together**
Marilyn E. Strutchens Coney Island B
56. **Mathematics Learning and the Brain - Targeting Research Questions**
Charles Dietz Coney Island C
57. **Improving Children's Probabilistic Reasoning with Technology**
Hollylyne Stohl Drier Boardroom
58. **Accomodations in Mathematics Instruction in the General Education Setting for Students with Special Needs**
Kathleen M. McCoy BCR 271
59. **Ethnomathematics...What is it?**
Daniel Clark Orey and Milton Rosa BCR 272

60. How Can Integration of Mathematics and Science Contribute to Paradigm Change?
David M. Davison and Kenneth Miller BCR 275
61. Learning Through Rich Problem Solving Contexts
Kouider Mokhtari and Kathryn S. Reinke BCR 276

Saturday, 11:15 a.m.-12:15 p.m.

Lunch

Coney Island A

Saturday, 12:30 p.m.-1:20 p.m.

62. The Development of Children's Mathematical Thinking: From Addition to Algebra
Jeff Shih, Megan Franke, Elham Kazemi, and Stephanie Capitolo Biagetti Coney Island A
63. Reforming Mathematics Education: Implication and Application of Constructivism
Roland G. Pourdavood, Lynn M. Cowen, and Lawrence V. Svec Coney Island B
64. Philosophy of Mathematics and Music in the University Setting
Jeff Johannes Coney Island C
65. The Distance Game: Children's Mathematizing in a Computer Number Space
Michael Naylor Boardroom
66. Readability of Mathematical Word Problems
Lynda R. Wiest BCR 271
67. Addressing the Needs of Students Who are Below Grade Level But Do Not Qualify for Special Education
Kimberly Arp BCR 272
68. Pre-Algebra Students' Solution Strategies for Algebraic Problems
Diana Steele BCR 276

Saturday, 1:30-2:20 p.m.

69. **Mathematics in the Service of Reading and Writing**
Alan Zollman, Kathryn S. Reinke, Kouider Mokhtari, Elizabeth Willner,
Margaret Scott, and Martie Gibson Coney Island B
70. **Exploring the Connections Between Multiplication Fact Strategies and
Mastery Recall**
Marilyn Sue Ford Coney Island C
71. **Story Problems in the Deaf Education Classroom: Teachers'
Perceptions of Story Problem Difficulty**
Claudia M. Pagliaro and Ellen Ansell Boardroom
72. **Research Perspectives on Inclusion in Mathematics**
Bea Babbitt BCR 271
73. **Algebra1, A PUMP Rather than a Filter**
Glenn Bruckhart and OliveAnn D. Slotta BCR 272
74. **Computers in Middle School Mathematics: A Bridge from Concrete to
Abstract Thought**
Mary Kay Robbins BCR 275

Saturday, 2:30 p.m.-3:30 p.m.

Coney Island A

75.

Keynote

Grace Dávila Coates

EQUALS, Lawrence Hall of Science

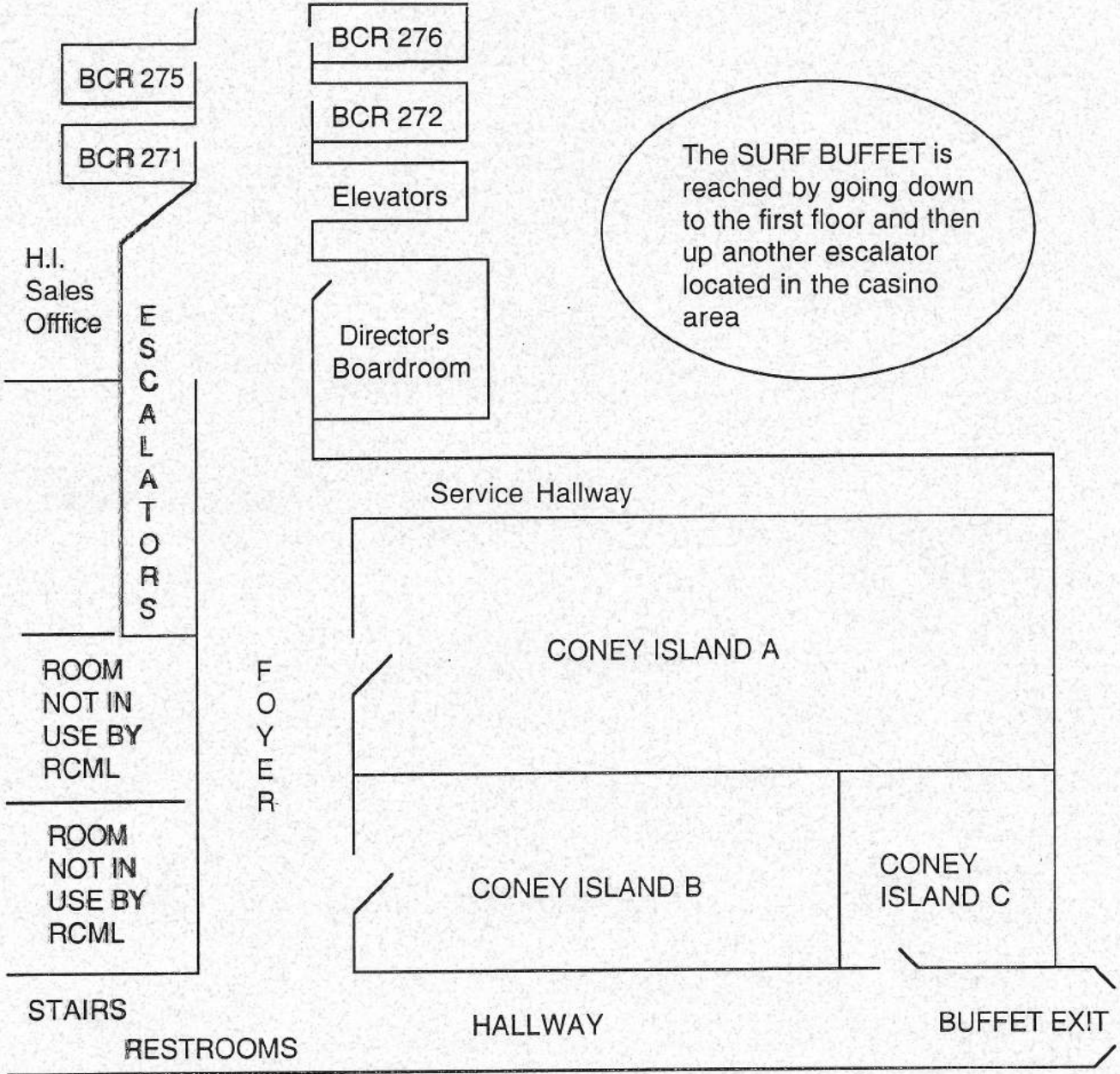
*Building Learning Communities in a Hurry-up
World: Informal Learning Programs and the Role
of Research*

Thank you for attending RCML 2000.

Saturday, 3:45 p.m.-6:00 p.m.

Boardroom

RCML Executive Board meeting



BCR 275

BCR 271

H.I.
Sales
Office

ESCALATORS

ROOM
NOT IN
USE BY
RCML

ROOM
NOT IN
USE BY
RCML

STAIRS

RESTROOMS

BCR 276

BCR 272

Elevators

Director's
Boardroom

Service Hallway

CONEY ISLAND A

FOYER

CONEY ISLAND B

CONEY
ISLAND C

HALLWAY

BUFFET EXIT

The SURF BUFFET is reached by going down to the first floor and then up another escalator located in the casino area

Albers, Kathy	31	Maxwell, Sheryl A.	16
Ansell, Ellen	71	McCarthy, Jane	2, 8
Arp, Kimberly	67	McCoy, Kathleen M.	58
Babbitt, Bea	72	Menon, Ramakrishnan	44
Barta, Jim	43	Metheny, Dixie	50
Biagetti, Stephanie Capitolo	62	Miller, Kenneth	60
Billings, Esther M. Huntzinger	6	Mokhtari, Kouider	61, 69
Boliver, David E.	28	Moldavan, Carla	4
Brahier, Daniel J.	31	Mullis, Lelia C.	4
Brewer, Pearl	1	Naylor, Michael	65
Brown, Sue	26	Olsen, James R.	49
Bruckhart, Glenn	73	Olson, Judith	48
Bucci, Terri Teal	15	Olson, Melfried	24
Cassel, Darlinda	7	Orey, Daniel Clark	59
Coates, Grace Dávila	75	Ortiz, Enriqu�	27
Cowen, Lynn M.	40, 63	Pagliari, Claudia M.	71
Crawford, Ann R.	10	Pagnucco, Lyle	5
Davison, David M.	60	Parsons, Roger Ray	25
Devine, Tanutda	40	Pattison III-Wyer, George	36
Dietz, Charles	56	Perdue, Diana S.	13, 34
Drier, Hollylynne Stohl	57	Pinchback, Carolyn L.	51
Edgell, John J., Jr.	30	Pourdavood, Roland G.	40, 63
Enderson, Mary	5	Quinn, Robert J.	29
Erickson, David R.	54	Reeder, Stacy	7
Farmer, Lisa	40	Reehm, Sue P.	33
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Ford, Marilyn Sue	70	Reynolds, Anne	32
Franke, Megan	62	Reys, Barbara	47
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Gehrmann, Roberta	53	Rives, Barbara	9
Geist, Gene	41	Robbins, Mary Kay	74
Gibson, Martie	41, 69	Rosa, Milton	59
Gilliland, Christie	14	Sakshaug, Lynae	17
Glickman, Cynthia	19	Scott, Margaret	69
Graeber, Anna O.	3	Shih, Jeff	62
Hall, Gene	2	Slotta, OliveAnn D.	73
Harpold, Marjorie	50	Sparks, Donald J.	4
Hines, Ellen	52	Speer, William	46
Holliday, Greg	47	Steele, Diana	68
Holzwarth, Sandra Sue	48	Strutchens, Marilyn E.	55
Johannes, Jeff	64	Sullivan, Kelly Marie	35
Johnson, Sandy Scaffetta	23	Svec, Lawrence V.	40, 63
Jordan, Pat Lamphere	18	Taylor, Sandy	48
Kazemi, Elham	62	Usnick, Virginia	22
Kinholt, Steve	14	Wall, Kay	37
Klanderma, Dave	6	Ward, Robin A.	21
Lamm, Harriet	13	Wasman, Dee	47
Lapan, Richard	47	Wiest, Lynda R.	66
Larson, Carol Novillis	11	Wiken, Don	25
Leeson, Dan	39	Williams, Marsha	31
Littleton, Pam	13	Willner, Elizabeth	69
Lott, Johnny W.	54	Willner, Jon	18
Magner, Jodelle S. Wuertzer	38	Wohlhuter, Kay A.	20
Mallam, Winifred A.	45	Zollman, Alan	69
Maloney, Stephanie	31		
Manouchehri, Azita	5		