

September 2008

**M.B. Ulmer**  
Professor of Mathematics  
University of South Carolina Upstate

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**Education**

Livingston University - 1965-66

University of Alabama - 1964-65, 66-70, -B.A., M.A., Math, elected to Phi Beta Kappa

University of Alabama - 1970-72 -Ph.D. Analysis, with minors in Applied Math and Statistics

**Professional Experience**

- 1983 - Present - Professor of Mathematics, USC Upstate
- January 2001 – July 2004 - Acting Dean, College of Arts and Sciences, USC Spartanburg
- July 2000 – July 2004 - Associate Dean, College of Arts and Sciences, USC Spartanburg
- 1995 - 1998 - Chair, Div. of Math and Computer Science, USC Spartanburg
- 1993 - 1994 (20 weeks)- 12th grade statistics teacher, Byrnes High School (unpaid volunteer)
- 1991 - 1992 (18 weeks)- 8th grd statistics teacher, Campobello-Gramling School (unpaid volunteer)
- 1976 - 1983 - Associate Professor of Mathematics, and
- 1972 - 1976 - Assistant Professor of Mathematics, USC Spartanburg
- 1970 - Temporary Instructor of Statistics  
University of Alabama Dept of Industrial Engineering

**Selected Other Relevant Experience**

- 1982 - 83 - Computer Consultant, Gifted/Talented program  
School District 2, Spartanburg County
- 1982 - Operations Research Consultant, Milliken Research Corporation
- 1966 - Laboratory Statistician, Gulf States Paper Corporation

**Professional, Honor and Honorary Memberships**

1. Mathematical Association of America
2. SC Council of Teachers of Mathematics, former Advisory Assembly delegate
3. National Council of Teachers of Mathematics
4. International Association for Statistical Education (Founding Member)
5. Phi Kappa Phi, Founding Member of the USC Spartanburg chapter
6. Alpha Mu Gamma (Foreign Language honor society) honorary member

**Selected Papers and Presentations**

1. "Teacher Preparation Efforts in the Southeastern U.S. - Strategies, Contents, and Observations", International Conf on Teaching Statistics, Dunedin, New Zealand, August, 1990
2. "Preparing Teachers for Integrating Statistics into the Curriculum - Who Will Implement the Standards?", SC Academy of Science, Spartanburg, SC, April, 1991
3. "Teaching Strategies in Probability and Statistics for Middle and Secondary School Teachers with Inadequate Background", with M. Scott, The Fourth International Conference on Teaching Statistics, Marrakech, Morocco, July, 1994
4. "Regression as a Foundation for a Quantitative Elements Course for the Liberal Arts", The Fifth International Conference on Teaching Statistics, Singapore, June 1998.
5. "Project-Based Instruction in Mathematics for the Liberal Arts", Annual meeting of the Southeastern Section of the Mathematical Association of America, Memphis, TN. March 1999
6. "Problem-Based Learning, Critical Thinking and Assessment", 23<sup>rd</sup> Annual Conference of the South Carolina Council of Teachers of Mathematics, Hilton Head Island, SC, November 1999

7. "Assessing Alternative Pedagogies: Two Approaches to Comparing Problem-based and Traditional Instruction" with Jonathan Trail, Planning and Assessment South of the Border – Cancun Conference, May 2003
8. "Problem-Based Learning in the Middle Grades Classroom" with Cece Toole and Valerie Duarte. South Carolina Conference of Teachers of Mathematics Fall Conference, October 2006, Myrtle Beach.

### **Selected Workshops Presented**

1. "What is Chaos, What is a Fractal, How Are the Two Related, and Why Would Anyone Want to Know?", Partnership for Excellence conference, Spartanburg, SC, Sept. 1992
2. "Modern Statistical Methods for Introducing Algebra", Greenville County Partnership for Excellence conference, Blue Ridge H.S., October 1992
3. "Using Statistics to Motivate Algebra", South Carolina Council of Teachers of Mathematics state conference, Hilton Head, SC, 1992
4. "Data Analysis: The Foundation of the Quilt of Integrated Math", NCTM regional conference, Paducah, KY, November 1993
5. "Data Analysis, Algebra, and Tech Prep", Symposium 3, Upstate Tech Prep Consortium Applied Math Workshop, June, 1994
6. "Project Based Teaching with Technology", SC Council of Teachers of Mathematics annual conference, Myrtle Beach, SC, 3 November 1995
7. "Raisin' the Level of Math Preparedness", with Lewanna Caldwell, SC Council of Teachers of Mathematics annual conference, Myrtle Beach, SC, 2 November 1996
8. "Lessons and Promises of Problem-Based Math", PBL 2000, Samford University, Birmingham, AL, 31 October, 2000

### **Selected Publications**

1. "A Finite Hysteretic Multiserver Queue with Some Discrimination of Customers" by M. Scott and M.B. Ulmer, *Utilitas Mathematica*, vol. 42, November 1992
2. "Teaching Strategies in Probability and Statistics for Middle and Secondary School Teachers with Inadequate Background", with M. Scott, *Proceedings of the Fourth International Conference on Teaching Statistics*, vol I, 1994
3. "Capitalizing On Strengths in a Project Based Course for the Liberal Arts", *Mathematics for Liberal Arts Students*, (abstracts of Math Fest, '97), August, 1997
4. "Problem-Based Math - A Complete Course", *The Mathmate*, vol 22, no 4, Fall, 1999
5. "Project-Based Instruction in Mathematics for the Liberal Arts", *Ellipse*, vol 8, no 2, November, 1999
6. "Revolution or Evolution in Mathematics Education? The USCS Experience", *PBL Insight*, vol 2, no 3, January, 2000
7. "Self-Grading for Formative Assessment in Problem-Based Learning", *Academic Exchange Quarterly*, vol 5, no 1, pp. 68-71, March 2001.
8. "Self Grading: A Simple Strategy for Formative Assessment in Activity-Based Instruction", abstracted for citation in *Resources in Education* and added to the ERIC microfiche collection, April, 2001.
9. "When Am I Gonna Use This?", *The Mathmate*, vol 28, no 4, December 2005.
10. "Self-Grading for Formative Assessment in Problem-Based Learning" to appear in *Sound Instruction, Volume II*, ISBN 0-9709895-1-2, a publication of Academic Exchange Quarterly. Publication expected Fall 2008.