

The Mathematics Education into the 21st Century Project
Universiti Teknologi Malaysia
Reform, Revolution and Paradigm Shifts in Mathematics Education
Johor Bahru, Malaysia, Nov 25th – Dec 1st 2005

Wholemovement of Folding Circles

Bradford Hansen-Smith

Folding the circle is the most comprehensive and informational hands-on teaching tool we have. The circle is *whole*, it contains what we already know and extends the movement of patterned in-formation into areas not possible with any other shape or form. The circle generates and demonstrates the patterns, forms, and functions of mathematical generalizations. There is no cutting, adding to or taking away, only proportional folding of the circle. Learn the principles, process, and direct simplicity of sequential folding and joining circles. The nature of the circle and the information that can be generated by folding is not possible to anticipate by drawing the image. This is an experiential process applicable to students and teachers at all grade levels, starting with 5 and 6 year children. Paper plates, hair pins, and tape are provided.

Mathematical Experiences in a Technology Integration Research Study **Abstract for Proposed Paper Presentation**

Dr. Mhairi (Vi) Maeers

From 2001-2005 the Elementary Program (about 120 students) and a number of faculty of the Faculty of Education at the University of Regina have been engaged in a large project which we called i-TeacherEd, a research project partially funded by Industry Canada. The major goal of the project was to develop, implement, facilitate, and explore the integration of information communication technology into Teacher Education Programs. Each subject area methods class in year three of the program (the year during which the preservice teachers took most of their methods classes) was asked to create and implement a variety of activities that used and integrated technology in appropriate ways within that subject area.

The entire i-TeacherEd project final report is available on the i-teacherEd website (see <http://education.uregina.ca.iteachered>) This paper will briefly outline the i-TeacherEd project goals and objectives, some mathematical activities engaged in during the mathematics methods course which demonstrate appropriate and effective use of technology, some experiences during internship where the preservice teachers planned for and implemented technology in their mathematics lessons/units, and some reflections from the co-operating teachers, the preservice teachers, the faculty methods instructors, and the faculty advisors. The paper will outline some lessons learned from this experience and some recommendations for future research/exploration with preservice teachers as they engage in using technology (in appropriate ways) in their mathematics teaching. Generally we are interested in knowing how best to prepare the preservice teachers at the university (during methods classes, during professional studies classes or other classes, or during their field experiences) to embrace the notion of using technology in their teaching endeavors, of considering technology resources or tools as suitable for inclusion in their lessons, and of the considerate, critical approach to using technology—or ANY resource or tool in any (mathematical) teaching activity.