LETTER FROM THE DIRECTOR

A Happy New Year to you all! The Kaput Center’s work continues to grow and solidify as we begin to focus on new endeavors that build upon our prior work. We continue to work in Massachusetts’ schools and we are seeking to establish new collaborations with partners in various States and institutions around the world. We are excited by the opportunities that collaboration with different cities and countries might offer us all.

Building on the prior success of the international conferences in our first year, we recently hosted a second *Foundational Issues in Mathematics Education* conference at the Center. We welcomed colleagues from a wide variety of places and spent time thinking about the future of mathematics education. We are looking to host a third symposium later this year. We have also organized several interdisciplinary colloquium talks and continue to publish books, articles and educational resources for various users.

We are continuing to build a digital infrastructure to support our work with colleagues in various places and are in the process of establishing forums to share ideas and setting up content in social networking spaces such as the Apple Learning Interchange. Please let us know your thoughts on this and how it can be developed.

I look forward to interacting with you and assessing where our mission can be carried out in ways that complement your own work and extends our work too this year.

We are looking forward to addressing new challenges in inventive and creative ways in 2009. Our focus on change and making a difference in society remains a priority as we continue to be mindful and cognizant of the issues that challenge our environment and world today.

My best wishes to you,

Stephen Hegedus, PhD

RECENT PUBLICATIONS


Resorting to different semiotic perspectives (e.g., Peirce’s, Vygotsky’s, Saussure’s), the authors of this book deal with questions about the teaching and learning of mathematics as well as the history and epistemology of the discipline. Mathematics discourse and thinking and the technologically-mediated self of mathematical cultural practices are examined through key concepts such as metaphor, intentionality, gestures, interaction, sign-use, and meaning. This book is addressed to mathematics educators, psychologists, educators, and students of mathematics education. (back cover)


In recent years there has been increased interest in the nature and role of proof in mathematics education, with many mathematics educators advocating that proof should be a central part of the mathematics education of students at all grade levels. This important new collection provides that much needed forum for mathematics educators to articulate a connected K-16 “story” of proof. Such a story includes understanding how the forms of proof, including the nature of argumentation and justification as well as what counts as proof, evolve chronologically and cognitively, and how curricula and instruction can support the development of students’ understanding of proof. Collectively, these essays inform educators and researchers at different grade levels about the teaching of proof at each level and, thus, help advance the design of further empirical and theoretical work in this area. (pg. 1)
FOUNDATIONS SYMPOSIA

Our first symposium was held in March 2008 followed by a second event in November 2008. Over 35 scholars from around the world have joined staff and associates of the Center in debating what are some of the core foundational issues for mathematics education research that our field should be focused on over the next 10-25 years. Members of the Center’s advisory board who could not make the event have been adding to our work which can be found on our Public Wiki.

Core categories are presently focused on:
1. Ubiquity of Technology
2. Date Interpretation and Visualization
3. Complexity and Modeling
4. Broader Theoretical Issues

See http://tinyurl.com/7sl5vc for more details. We are presently arranging our thoughts into a digital Monograph series for publication with Springer and a collective letter for President Barack Obama on our thoughts and plans.

INTERDISCIPLINARY COLLOQUIUM SERIES

The Colloquium Series features prominent speakers from interdisciplinary areas. In the Fall 2008, the following speakers offered thought-provoking speeches that can be found on-line at: http://tinyurl.com/a4mpbw

Maria L. Blanton, University of Massachusetts, Dartmouth. Algebra in the Elementary Grades: Why Do We Need It and Why Do We Do It?

Guershon Harel, University of California at San Diego. A DNR Perspective on Mathematics Curriculum and Instruction

Chris Dede and Rebecca Mitchell, Harvard Graduate School of Education. Mathematics Teachers’ Adaptations of a Highly Novel Curriculum Based on Augmented Reality Technology

This Spring our talks will be available via webcast from http://kaputcenter.umassd.edu. Please visit our website to find out more information about the target population for these talks. We welcome you to join us at the Kaput Center if you are local or are visiting Massachusetts.

We also support informal talks at the Center. Please contact us if you wish to spend some part of your sabbatical here or wish to offer an informal seminar.

Noticeboard: Announcements and Requests

AVAILABLE NOW: two new SimCalc MathWorlds® products commercialized through the University of Massachusetts. A license provides you with access to an on-line database of curriculum materials developed through research projects, professional development materials, and video tutorials for use within your institution. Focus: Middle and High School. For further information and to request a quote, visit: http://tinyurl.com/64wls6

We are in our 2nd year of a 4-year longitudinal efficacy study funded by the US Department of Education’s Institute of Education Sciences (a. $2.2m) to develop and evaluate the impact of SimCalc resources and wireless connectivity (utilizing TI-Navigator™) on student learning and motivation throughout High School. Early results show a positive effect on learning. This year we are in over 30 Algebra 1 classrooms and 7 Algebra 2 classrooms in MA.

Visit: http://tinyurl.com/5uj9oa

K-16 Regional Mathematics Network

This newly formed Network is a coalition of school districts within Massachusetts and the University of Massachusetts Dartmouth. It promotes regional initiatives for the improvement of mathematics education and student achievement. Please contact us if you wish to join us at the next meeting.

Visit: http://tinyurl.com/5mdd39

We are interested in forming a Massachusetts Parents’ Symposium that brings together researchers, faculty, educational leaders and parents to work on new initiatives in our local schools. If you are interested in this idea please contact us.

If you are an educational leader interested in partnering on a research project in your school or district both locally, nationally, and internationally, please do not hesitate in contacting us. We have world-wide connections and are seeking to expand and establish these more.