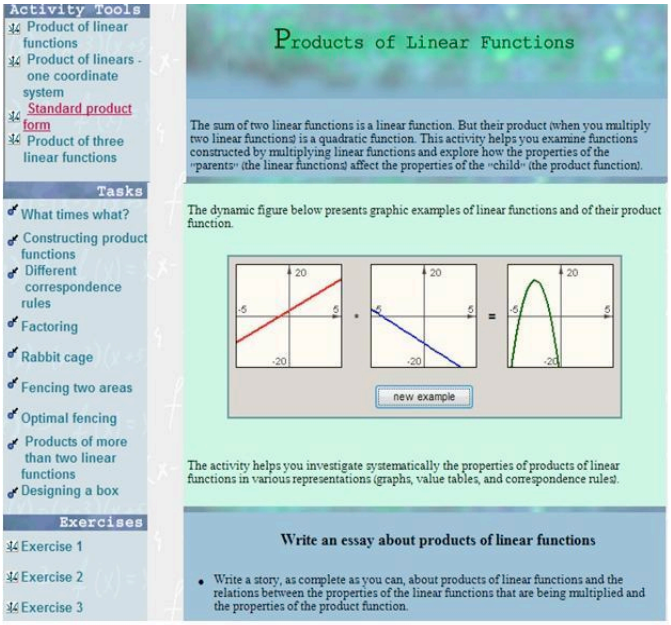
International Society for Design and Development in Education Selects Winner of Third Annual Design Awards, "The Eddies"

Michal Yerushalmy from Israel's University of Haifa

Pittsburgh, PA (Oct 7, 2010) The International Society for Design and Development in Education (ISDDE) recently announced the winner of the organization's third annual design awards, known as "the Eddies," to recognize excellence in design of educational products and materials in science or mathematics. The 2010 award winner and recipient of a $10,000 prize is **Michal Yerushalmy** of the Research Institute of Alternatives in Education at the University of Haifa, for **Visual Math**, a curriculum developed through a rigorous process to produce innovative materials with great demonstrated impact on students, teachers, and educational designers around the world.

Visual Math, developed by teams led by Michal Yerushalmy, is a function-based mathematics program for 7th through 12th grade (http://www.cet.ac.il/math-international/junior.htm and http://www.cet.ac.il/math-international/high.htm). It systematically builds student understanding of secondary school mathematics from a functions perspective through rich tasks that often involve computer programs (Algebra Sketchbook, Algebra Patterns, Calculus Unlimited, and The Geometric Supposer). Rather than serving only as enrichment activities, these environments are closely integrated into a coherent, multi-year curriculum in which students develop strong skills based on inquiry into the big ideas of algebra, calculus and geometry.



Visual Math was first developed in the early 1990s, building upon prior successful designs in geometry. It has seen 4 major revisions over 16 years of systematic development. The changes included systematic revisions of tasks based upon careful analysis of student and teacher needs, but also included the integration of an innovative e-book structure for the materials that builds upon the unique affordances of **digital interactive books**. The developed materials also included workshops and multimedia packages for teachers.

The impact on students was carefully documented through a range of studies showing that **VisualMath** students outperform traditional curriculum students by a wide margin on a range of measures (national tests, placement exams, and complex problem solving tasks). One line of work demonstrated that students from the lower 25% greatly benefited from the pressure for thinking and analysis found within Visual Math. At the same time, a second line of work also established that gifted/talented students also benefit from the rich curriculum. These studies showed that well designed materials could be useful to a very broad range of students.

A contemporary continuation of VisualMath is **Math4Mobile**. This project seeks to convert ubiquitous mobile technology into an important resource for inquiry teaching and learning mathematics.

Visual Math digital materials are open for use in various formats and languages; teachers, educational designers, and researchers from around the world are documenting the impact the Visual Math materials had on them.

Michal Yerushalmy heads the **Institute for Research of Alternatives in Education** which aspires to become the premier research and design incubator for technological innovation in education, bringing together developers and researchers from academia and industry, in Israel and abroad, with research fellows in the learning sciences.

About the International Society for Design and Development in Education

ISDDE was founded to bring together outstanding designers and developers to collectively define and achieve excellence in educational products and materials, particularly in science, math, and technology; and to create a professional community that shares knowledge, research, approaches, and critiques. ISDDE advances these goals through annual conferences, an e-journal, *Educational Designer*, and "The Eddies," which recognize and give exposure to outstanding work in the field. The 2011 "Eddies" will recognize a substantial body of work over a period of years. For more information about ISDDE and its awards, visit www.isdde.org.

Contacts:

- Christian Schunn, Chair, ISDDE Prize Committee, USA phone 412 624 8807 schunn@pitt.edu
- Philip Daro, Co-Chair, ISDDE Prize Committee, USA phone 415 216 7542 pdaro@berkeley.edu
- Hugh Burkhardt, Chair, ISDDE: UK phone 0115 951 4411 or 0774 062 0909 Hugh.Burkhardt@nottingham.ac.uk
- Michal Yerushalmy, Professor of Mathematics Education, and Director of Research Institute of Alternatives in Education at the University of Haifa: Israel phone 972-4-8240832, michalyr@construct.haifa.ac.il http://www.edu.haifa.ac.il/personal/michalyr/