



Newsletter

January 2010

IBL Projects Receive NSF Grant

Recently four university centers for Inquiry-Based Learning, plus the assessment and evaluation group from the University of Colorado, were notified of their success in obtaining a collaborative grant from the National Science Foundation for a three-year project entitled:

“Research, Dissemination, and Faculty Development of Inquiry-based Learning (IBL) Methods in the Teaching and Learning of Mathematics.”

Please see *NSF Grant* on page 2

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Academy Gives Grants

October 2009

Mini-grants of up to \$5,000 each were awarded to 23 university professors through the newly formed **Academy of Inquiry-Based Learning**. AIBL, though still in a preliminary stage of development, intends these grants to quickly help with the first steps towards starting IBL courses or activities in members' departments.

The Academy is an association of professors, instructors, teachers and non-teaching supporters (such as retired professors having substantial IBL experience, administrators, and foundation personnel) who are committed to developing and disseminating guided inquiry based learning (IBL) techniques.

Katherine Socha, with the help of an advisory group, led the way in

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A network group for new and experienced IBL teachers.

Moore Method in the UK

August 2009

Chris Good was a graduate student of Mike Reed at Oxford, in turn a Ph.D. student (1970) of Ben Fitzpatrick at Auburn University, and there experienced Moore-style courses. As a Senior Lecturer at the University of Birmingham, Chris obtained an EAF grant in 2004 to support visits to Baylor University in Texas where he observed Moore Method classes taught by Brian Raines.

With this mentoring experience as preparation, Chris introduced a Moore Method course in 2004 at Birmingham entitled 'Developing Mathematical Reasoning.' Enrollment was limited to less than twenty first-year students, those with the highest entrance qualifications in mathematics. It has continued as an elective course, always having more applicants than places, and consideration is being given to offering a second section.

Chris Sangwin, a Lecturer at Birmingham, has taken over the course during the last few years and chose to remove the high entrance qualification requirement. The two Chrises are now putting forward a grant proposal for funding

in the UK to work toward the goal of having every undergraduate mathematics student experience at least one IBL mathematics class during her or his college career.

Jo Boaler, Marie Curie Professor of Education at Sussex University, agreed to be an advisor to their project. Her latest book, *What's Math Got to Do with It? Helping Children Learn to Love Their Least Favorite Subject - and Why It's Important for America*, is an example of how she has engaged the public at large in discussion of teaching methods that have proven effective.

Bob Burn, author of problem-oriented texts such as *Numbers and Functions* that are eminently suitable for IBL courses, is one of the consultants for the proposed project.

See a catalogue description of the course at:

web.mat.bham.ac.uk/R.W.Kaye/admin/firstyear/momd.html

NSF Grant from page 1:

To quote from the grant abstract:

Inquiry-based learning has been a prominent component in education since the days of Socrates. In more recent times, one of the strongest proponents of this type of learning has been R.L. Moore. ... Present-day Inquiry-Based Learning (IBL) includes less strict versions of Moore's techniques, which are in direct contrast to the traditional lecture

method of instruction.

The four IBL centers are associated with the departments of mathematics at

University of California, Santa Barbara,
University of Chicago,
University of Michigan, Ann Arbor,
University of Texas at Austin,

Links to their web sites can be found at:

www.discovery.utexas.edu/rlm/projects-announcements.html

Guide for the Moore Method

July 2009

From the publisher's description:

The Moore Method: A Pathway to Learner-Centered Instruction offers a practical overview of the method as practiced by the four co-authors, experienced university professors. This is a "how to" manual for implementing the method and an answer to the question, "what is the Moore method?" Moore is well known as creator of The Moore Method (no textbooks, no lectures, no conferring) in which there is a current and growing revival of interest and modified application under inquiry-based learning projects. Beginning with Moore's Method as practiced by Moore himself, the authors proceed to present their own broader definitions of the method before addressing specific details and mechanics of their individual implementations. Each chapter consists of four essays, one by each author, introduced with the commonality of the authors' writings.

Topics include the culture the authors strive to establish in the classroom, their grading methods, the development of materials and typical days in the classroom. Appendices include sample tests, sample notes, and diaries of individual courses. With more than 130 references supporting the themes of the book the work provides ample additional reading supporting the transition to learner-centered methods of instruction.

Academy from page 1

getting the Academy started. She is currently on leave from St. Mary's College of Maryland and benefiting from a AAAS Fellowship at the NSF. Katherine has received recent honors from the Mathematical Association of America: the Henry Alder Award for Distinguished Teaching and the Lester R. Ford Award for expository excellence.

Next grant cycle:

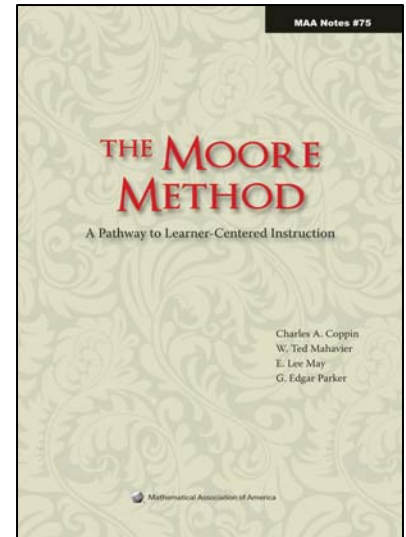
AIBL invites applications for the small grants program. The deadline will be 1 April 2010. Decisions will be announced in June.

For information about Academy membership and funding guidelines visit:

www.eduadvance.org/guidelines_files/academy.html

or contact

aibl@edu-adv-foundation.org



Available online from the Mathematical Association of America or amazon.com.

"We believe the quantitative and qualitative data demonstrate that, for students of all levels of study, learning some mathematics through the Moore Method is significantly and sustainably beneficial."
 University of Birmingham
 UK project proposal,
 2009.

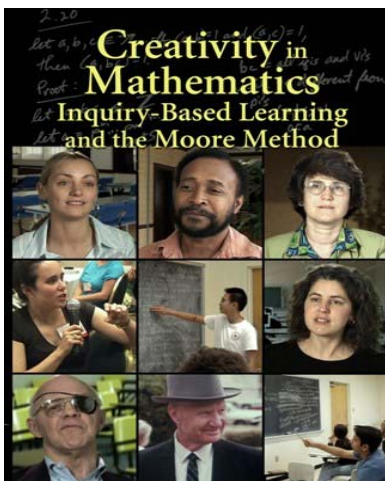
New DVDs

Creativity in Mathematics

David Garrigus, the award-winning producer, attended several annual Legacy of R.L. Moore conferences and recorded individual attendees talking about their IBL experiences.

The result is an absorbing 20-minute introduction to the guided discovery method known as Moore Method or Inquiry-Based Learning. It is particularly strong in conveying how successful it has been from a number of different points of view: new and experienced IBL teachers as well as students and education leaders from across the USA.

The main video is on YouTube while the DVD, available from the Legacy Project, also has additional material that provides more information on historical background and other topics.

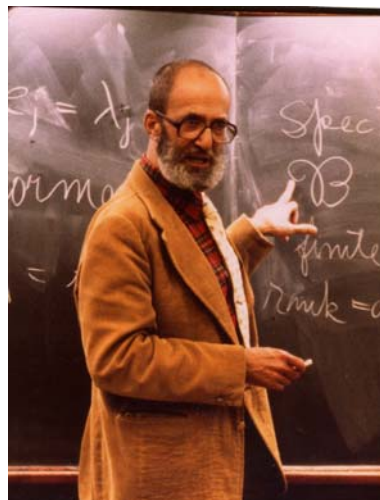


I Want to Be a Mathematician

In a rare interview, Paul Halmos, whose writings influenced generations of mathematicians, shares with Peter Renz his thoughts on mathematics and how to teach it and write about it. He describes how he came to learn about the Moore Method and to adapt it for his own teaching.

The film by George Csicsery is available through the Mathematical Association of America. There is a preview at:

www.zalafilms.com/films/halmospsynopsis.html



A Gift to the Future

If you are interested in providing financial support for the continuing use of Inquiry-Based Learning and the Moore Method in meeting the challenges that face education, one effective means is through a gift to the Educational Advancement Foundation.

During the calendar year 2010 your gift will be matched one-to-one by EAF.

For information on how to implement this and how to incorporate your support as part of an estate plan please contact the EAF or visit:

<http://www.eduadvantage.org/bequest.html>