



## COLLOQUIUM

A MATHEMATICS INQUIRY LEARNING AT KUTZTOWN (MILK) LECTURE

3:30 P.M.

THURSDAY, SEPTEMBER 30, 2010

BOEHM HALL 260

### *The Moore Method: An Introduction*

DR. PADRAIG M<sup>c</sup>LOUGHLIN

*Associate Professor of Mathematics*

#### ABSTRACT

We begin by introducing the audience to the classic 'Moore Method' and its originator, R. L. Moore (1882 - 1974). We present Moore in his own words (some snippets from the film, *Challenge in the Classroom*) and outline the main features of the method. We describe a 'Moore Method' course (of which the speaker was a student more than a dozen times at several universities). A course taught in this manner oft has as a purpose encouraging the students to create, write, and present mathematically sound proofs of theorems.

We transition to a discussion of 'Modified Moore Methods' ( $M^3$ ) which include the speaker's own modified Moore method. The way a course is conducted varies from instructor to instructor, but the content of the course is usually presented in whole or in part by the students themselves. Instead of using a textbook, the students are given a list of definitions and theorems which they are to prove and present in class, leading them through the subject material. The Moore method or a modified Moore method typically limits the amount of material that a class is able to 'cover,' but promotes a depth of understanding that, we opine, is missing when one listens to a lecture.

We discuss 'Inquiry-Based Learning' (IBL) and how the Moore method and modified Moore methods are but types of inquiry-based learning techniques that can be used to successfully (hopefully) aid student learning. We close with a preview of the next speaker's talk, Dr. Stan Yoshinobu (California Polytechnic University), who will speak on the 14<sup>th</sup> of October in more depth and with greater clarity about inquiry-based learning.

**3:00 p.m.**

**refreshments served**

**3:30 p.m.**

**talk begins**

---

*The Mathematics Inquiry Learning at Kutztown (MILK) Lecture  
is funded by the generous support of the Academy for Inquiry-Based Learning,  
The Educational Advancement Foundation,  
and Mr. Harry Lucas, Jr.*

---

Kutztown Univ. of Pennsylvania Dept. of Mathematics

Dr. Paul S. Ache III, Chair