

Mathematics Education Seminar Fall 2010

Fridays, 2-3pm

Grants Room

3302 Rood Hall

Book: *Theories of Mathematics Education: Seeking New Frontiers*

[Access the book online](#)

This page is intended as a reference for anyone who is interested in attending the Mathematics Education Seminar.

Background:

Our seminar serves as a forum for mathematics education graduate students and faculty as well as anyone interested in attending. Participants typically receive an article to read before each meeting and are encouraged to come with notes, questions, and other items to discuss from the article. We investigate, question, and respectfully challenge ideas from the articles and each other while keeping in mind current works and research in the field of mathematics education. Meetings usually last for one hour.

For more information regarding this Seminar or to acquire the reading for the week, feel free to email James Kratky james.l.kratky@wmich.edu.

Date	Article/Topic	Meeting Location	Notes
Sept 17	Sriraman, B., & English, L. (2010). Surveying Theories and Philosophies of Mathematics Education. In B. Sriraman & L. English (Eds.), <i>Theories of Mathematics Education</i> (pp. 7-32): Springer Berlin Heidelberg.	Rood 3375	<p><u>Themes in the discussion</u></p> <ul style="list-style-type: none"> Constructivism as a learning theory <ul style="list-style-type: none"> A “Grand Theory” in math ed. Is it possible? Grand theories in other fields: physics, biology The culture of research & Math Ed The Math Wars: role of beliefs
Sept 24	Lester, F. K. (2010). On the Theoretical, Conceptual, and Philosophical Foundations for Research in Mathematics Education. In B. Sriraman & L. English (Eds.), <i>Theories of Mathematics Education</i> (pp. 67-85): Springer Berlin Heidelberg.	Rood 3375	<ul style="list-style-type: none"> Relations between practical, conceptual, and theoretical frameworks Bricolage and bricoleur (p. 74) – research is about using the tools we have available (appropriately) to try to answer our research questions
Oct 1	Lesh, R., & Sriraman, B. (2010). Re-conceptualizing Mathematics Education as a Design Science. In B. Sriraman & L. English (Eds.), <i>Theories of Mathematics Education</i> (pp. 123-146): Springer Berlin Heidelberg.	Rood 3302	<ul style="list-style-type: none"> Seven Characteristics of Design Science Continued discussion of a <i>Grand Theory</i> Research nowadays is often scaled up “Isolated studies seldom result in any large scale changes” (p. 129). The importance of adaptability in research & design.
Oct 8	Goldin, G. A. (2010). Problem Solving Heuristics, Affect, and Discrete Mathematics: A Representational Discussion. In B. Sriraman & L. English (Eds.), <i>Theories of Mathematics Education</i> (pp. 241-250): Springer Berlin Heidelberg.	Rood 3302	<ul style="list-style-type: none"> The 5L and 3L pail problem <ul style="list-style-type: none"> How to represent the problem Debate on Fig 1 schematic The content in Discrete Mathematics <ul style="list-style-type: none"> What makes it unique How it connects to other Math What makes it “fun” – role of Affect Connection to real life situations The role of Whole Numbers over rational and real numbers. Heuristics <ul style="list-style-type: none"> “encourage students to ask the generalizing question” (p. 247) planning and persevering in problem solving
Oct 15	Scheduling Conflict: No Seminar this week		Scheduling Conflict: No Seminar this week
Oct 22	Cai, J. (2010). Preface to Part IX. In B. Sriraman & L. English (Eds.), <i>Theories of Mathematics Education</i> (pp. 261-262): Springer Berlin Heidelberg.	Rood 3302	

	English, L., & Sriraman, B. (2010). Problem Solving for the 21st Century. In B. Sriraman & L. English (Eds.), <i>Theories of Mathematics Education</i> (pp. 263-290): Springer Berlin Heidelberg.		
Oct 29	Scheduling Conflict: No Seminar this week		Scheduling Conflict: No Seminar this week
Nov 5			
Nov 12			
Nov 19			
Nov 26			
Dec 3			
Dec 10			

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