

Department of Mathematical Sciences Colloquium

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Students' Mental Act of Anticipating in Solving Problems Involving Algebraic Inequalities and Equations

Some students approach non-routine problems by applying a procedure that comes to mind while others begin by analyzing the problem situation and/or predicting a result prior to performing any actions. My research aims at characterizing students' ability to anticipate and predict as they solve algebra problems. Anticipating refers to the act of envisaging an action to accomplish something, such as to obtain an answer, to attain a goal, or to explore an idea. Predicting refers to the act of guessing or expecting a result prior to performing any actions. In this presentation, I will (a) illustrate how these two mental acts are analyzed using Harel's MA-WoU-WoT (Mental Act - Way of Understanding - Way of Thinking) framework, (b) discuss categories of students' acts of anticipating and predicting, (c) identify relationships between students' anticipation and their conceptions of inequalities, and (d) summarize clinical observations regarding the processes by which students advance their ability to anticipate and predict.

**Friday, February 10, 2006, at 4 pm in Bell Hall 143
The University of Texas at El Paso**

Please note the unusual time for the Colloquium.
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Refreshments will be served in front of the colloquium room
15 minutes before the start of the colloquium.

For further information, please contact Dr. Pavel Šolín, Bell Hall 220. Phone:
(915) 747-6770, email: solin@utep.edu.