



Apr 14th, 9:00 AM - 10:00 AM

Math Workshops: A Study of Constructivism, Problem Solving, And Differentiated Instruction

Claire Current
Illinois Wesleyan University

Robin Leavitt, Faculty Advisor
Illinois Wesleyan University

Follow this and additional works at: <https://digitalcommons.iwu.edu/jwprc>

Current, Claire and Leavitt, Faculty Advisor, Robin, "Math Workshops: A Study of Constructivism, Problem Solving, And Differentiated Instruction" (2012). *John Wesley Powell Student Research Conference*. 6.

<https://digitalcommons.iwu.edu/jwprc/2012/ESposters/6>

This Event is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

Poster Presentation ES

**MATH WORKSHOPS: A STUDY OF CONSTRUCTIVISM, PROBLEM SOLVING,
AND DIFFERENTIATED INSTRUCTION**

Claire Current and Robin Leavitt*
Educational Studies Department, Illinois Wesleyan University

This self-study explores the elements necessary for creating math workshops to meet the needs of a diverse group of learners. I aimed to discover the ways math workshops could provide an environment for students to problem solve and construct their own mathematical understanding. I designed three workshops based on the mathematical content being covered and implemented each the day before a quiz in mathematics. Data included the comparison of the plans for the workshop with student achievement on the subsequent quiz along with field notes and reflections. Based on this data, I developed a picture of the most effective workshop format in which prior instruction in problem solving is coupled with collaborative work on tiered and open-ended tasks. Providing whole class instruction to introduce multiple problem solving strategies and familiarizing students with a variety of constructivist tasks ahead of time, math workshops can be a successful tool for differentiating instruction.