



Video Interactions for Teaching and Learning (VITAL): A Learning Environment for Courses in Early Childhood Mathematics Education

PROJECT OVERVIEW

Our aim is to prepare early childhood mathematics educators through courses and "virtual fieldwork" to help connect theoretical knowledge of developmental psychology, mathematics, and pedagogy, with practical experiences, including classroom teaching and assessment strategies.

EXECUTION

	LEARNIN GOAL	NG	VITAL FEATURE	LEARNING ACTIVITY	
	OBSERVE	Recognize and identify important events as they occur	Video viewer	Select and describe meaningful segments of video	
Skill building,	ASK	Formulate questions that improve one's understanding	Guided lesson	Anticipate and analyze expert questions	<text><text><text><text><text><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></text></text></text></text></text>
critical thinking, integrating with practice, and self-evaluation	THINK	Assess the relative merits of observed evidence	Workspace	Identify and organize evidence to support an argument	
	INTERPRET	Construct an argument based on understanding of evidence	Multimedia essay	Write an essay arguing a hypothesis, cite evidence	Image: Control (Langer

				Unis point metra <u>Kristeen-surface area</u> Weicher or not young children are inherently adding, subtracting or councing without
TRANSFER	Apply observation, asking, thinking, and interpretation skills to practice	Contribution to digital library	Create and videotape a lesson and interview that investigate an interesting new idea	<image/>
REFLECT	Examine personal experiences using new critical perspective, revise approach	Final project	Analyze one's lesson and interview based on understanding of theory and actual events	

RESEARCH & EVALUATION

Our central research question is whether VITAL, in support of a model course based on the *Development of Mathematical Thinking*, provides teachers with enhanced learning opportunities that extend their capacity to understand related theory and to more effectively apply their understanding in the classroom.

Does VITAL help teachers develop an informed approach to practice accomplished by a combination of the study of theory and

virtual field experience?

