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

1. OBSERVE
   See phenomena, compare to beliefs and experience

2. INTERPRET
   Take notes on videos, suggest value and meaning

3. THINK
   Construct an argument, select evidence, offer alternative theories

4. TRANSFER
   Apply knowledge to practice, contribute to video library

5. REVISE
   Reflect, get feedback, modify approach

VITAL

An innovative, Web-based video analysis system, VITAL helps teachers make connections between the psychology of mathematical thinking and classroom practice by enabling them to observe children closely, interpret what they see, and develop arguments using cited video content as evidence.

http://cenmtl.columbia.edu/vital/nsf

OBSERVE
MATHEMATICAL THINKING

GIVE A LESSON
CONDUCT A CLINICAL INTERVIEW

EARLY CHILDHOOD CLASSROOM

ASSESSMENT

Analysis of student work
Critical incident reports
Surveys/interviews

Extended analysis using personal video, faculty commentary

Mathematical thinking working space

Classroom experiences and clinical interviews

Video of children's work

Video with instruction and talk

Video of children and teachers