 USING VIDEO TO MEASURE TEACHING PRACTICES IN SCIENCE CLASSROOMS

Presented by:
Vandana Thadani, Ph.D., Psychology

During this informal presentation, I’ll describe my work developing measures of teaching practices in middle and high-school science classrooms. The measures capture the cognitive and learning strategies elicited through teachers’ instructions, suggestions, tasks and questions—which I refer to collectively as “teacher tasks and questions” (TTQs). For example, TTQ measures capture whether teachers elicit reproduction of information, reasoning, note-taking, reflective thinking, or strategy regulation from students during instruction. The rationale for the measures is that TTQs may frame students’ “job” during lessons as involving any of the cognitive strategies listed previously, and because students’ cognitive strategies play an important role in learning, TTQs may predict student learning. I’ll discuss future directions for this research, which involve assessing whether the TTQ measures have predictive validity—i.e., do they predict student learning or other aspects of students’ beliefs/thinking?

This talk is part of the STEM Education Research Seminar series. The goal of the series is to provide a forum for faculty working on research related to STEM education to present and discuss their work. All interested welcome.

The STEM Education Research Seminar is organized by Anna Bargagliotti, Ph.D., Mathematics, and Jeff Phillips, Ph.D., Physics. Please contact them directly or via teachers@lmu.edu for details.