

**Meeting:** 1003, Atlanta, Georgia, MAA CP G1, MAA Session on Drawing on Our Students' Thinking to Improve the Mathematical Education of Teachers

1003-G1-333      **Patricia L Hale\*** ([phale@csupomona.edu](mailto:phale@csupomona.edu)), Cal Poly Pomona, Math Dept., 3801 W. Temple Ave., Pomona, CA 91768. *Using Large Surfaces to See Students' Understanding.*

Educators find that by the time they learn how their students are (often erroneously) thinking about a particular mathematical topic, it is too late to do very much about it and still cover the requisite material for a course. To try to improve this situation, many found that employing in-class group work often created as many problems as it solved. Eric Hsu presented a solution to the dilemma: have students work in groups using large surfaces such as the white board. By having students do group work on large surfaces one can easily look around the room and see all student's progress, including common misunderstandings; it is easy to not intrude on a group's discussion, but still observe the group's approach and solution to solving a problem. Additionally, students are more attentive when lectures are centered on a peer's work; lectures are spontaneously given and centered on the particular classroom's understanding. This talk will describe possible key components to using large surfaces which include reading assignments, reading quizzes, in-class group work, homework, projects and exams. The most surprising result is that, using this method, it was actually much easier to cover all the material included in the course. (Received September 10, 2004)