

The Eureka! Experience- Instructional Techniques that Encourage it!

FLEX DAY PRESENTATION 1/27/12

Watch two of your colleagues participate in an intriguing experiment designed by an educational psychologist. Learn about the successive stages that your students go through to assimilate mathematical terms and concepts. Witness the Eureka! experience - the point in the learning process when students confidently claim, "Now I understand it!" Instructors from all disciplines will leave with new ideas that they can immediately put to use in their classroom or during office hours.

Special needs:

I will need a 6-foot long table at the front of the room that I will use for a demonstration/activity. Depending on the size of the audience, I might need the table placed on a riser platform so that the people at the back of the room can see what takes place on the table.

About Presenter:

Alan Tussy is currently in his 25th year as a mathematics instructor at Citrus Community College in Glendora, CA. Tussy attended the University of Redlands where he received a B.S. in Mathematics. He returned a fifth year to student teach and earn a secondary teaching credential. He was hired out of college by the Arcadia Unified School District where he taught junior high and high school mathematics. While teaching in Arcadia he attended California State University, Los Angeles, and received a M.S. in Applied Mathematics. The Masters degree led to a part-time and then full-time position that he now enjoys. Alan has authored nine mathematics textbooks that are published by Cengage-Brooks/Cole. They range in level from a basic mathematics to intermediate algebra.

More about the program:

I will select two members of the audience to serve as "subjects" in an activity developed by one of the leading educational psychologists of the 20th century, Lev Semenovitch Vygotsky. The remainder of the audience will assume the role of "clinician" as they watch each subject work through the problem. Much can be learned from the demonstration about concept formation in our students and the important relationship between thought and language.

After the demonstration, I will discuss Vygotsky's five major findings about concept formation. Then I will share some specific instructional techniques that I employ to promote concept formation and the Eureka experience in my students.