

1035-97-1278

**Daniel Kiteck\*** (danielkiteck@gmail.com), **Emily Schnitger\*** (emily.schnitger@gmail.com) and **Matthew Wells\*** (mwells@ms.uky.edu). *Panel 3: Graduate Student panel on the effect of graduate students on content knowledge issues in the K-12 classroom.*

Through opportunities such as the FERMAT program and ALGEBRA CUBED, in-service high school and middle school teachers work with current graduate students to introduce different lessons into the classroom. This panel focuses on the effect that such lessons have on the content knowledge in a K-12 classroom on both students and their teachers. One such activity, given to a high school classroom, is the SNAP activity. Here, the students learned of elementary ideas in group theory by experimenting with a new operation and a special set of elements. Basic definitions, such as identity, inverse, and closure, are developed. Another such activity, given as a Pi-day activity, involves finding the formula for the surface area of a sphere. In this activity, the students formed connections between areas of circles and the surface area of a sphere through the use of different manipulatives. After the connection was formed, the formula for the surface area is derived. The panel will share their experiences of working in a high (middle) school setting, as well as discuss these activities and more. Then the panel will collectively describe the effect that such activities have on the students and their teacher, with a focus on their content knowledge. (Received September 19, 2007)