



Creating a Virtual Academic Community for STEM Students

Lisa B. Elliot, Benjamin Rubin, James J. DeCaro, & E. William Clymer, Rochester
Institute of Technology/National Technical Institute for the Deaf

Kathy Earp, Camden County College

Michele D. Fish, Cornell University

Higher Education Teaching and Learning Conference, University of Central
Florida, January 14, 2013



Who We Are

- Deaf STEM Community Alliance
- Supported by the National Science Foundation, HRD #1127955
- 3-5 year project (2011-2016)





Campus Partners





Project Rationale

- Participation gap for students who are deaf or hard of hearing (D/HH)
- Contributing factors:
 - Student preparation (STEM basic skills, concepts)
 - Socialization (peers, role models)
 - Accessible media



Project Rationale

- Solution: Deaf STEM Community Alliance
 - Student preparation
 - Remote tutoring
 - Remote captioning
 - Remote interpreting
 - Socialization
 - Remote mentoring
 - Peer interaction
 - Accessible media
 - Curated collection of STEM resources



Goal and Objectives

- Goal
 - Increase the graduation rates of postsecondary D/HH STEM majors in the long term
- Objectives
 - document and disseminate a description of the process of creating a model VAC for replication
 - increase the GPAs and retention rates of D/HH students in STEM majors.

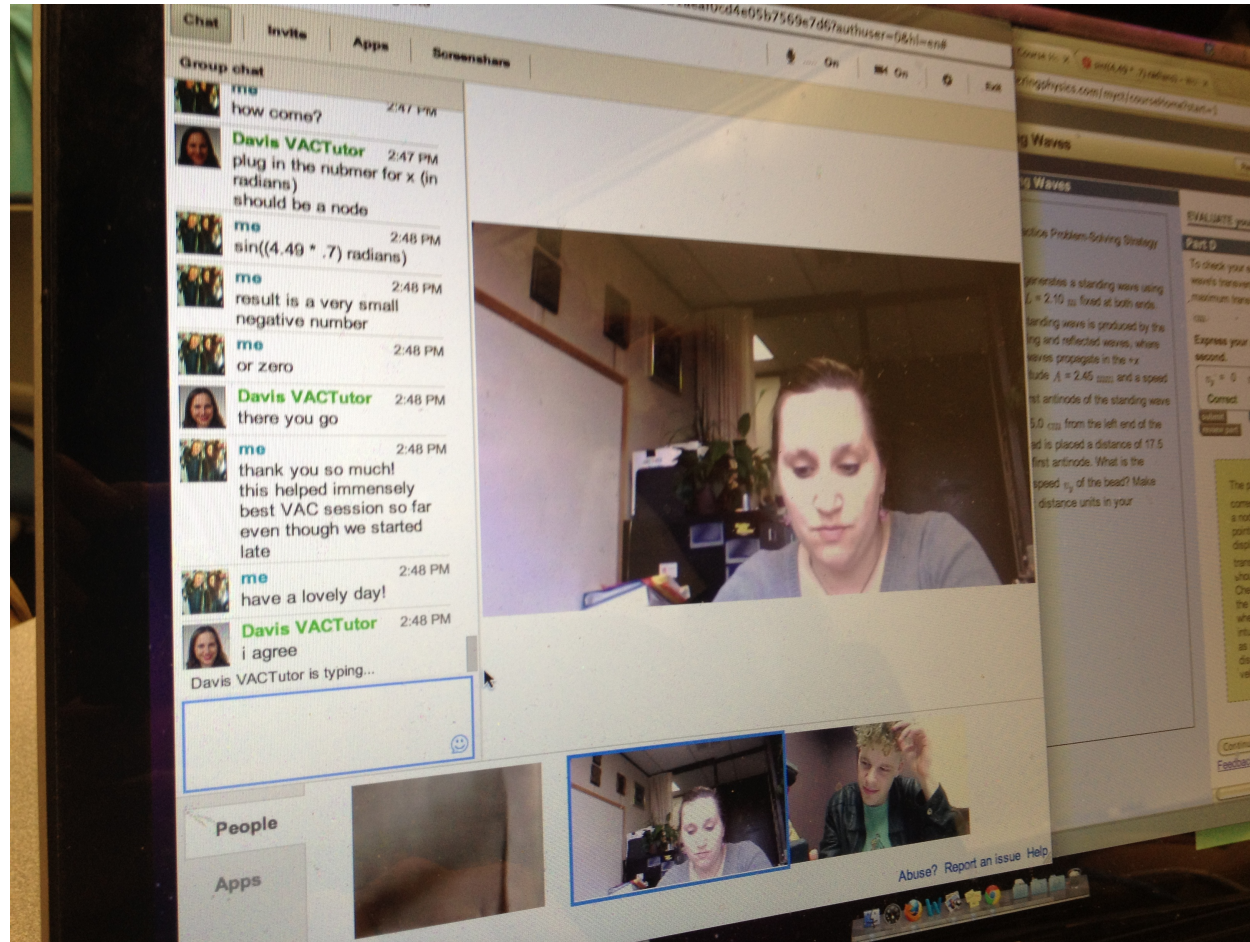


Remote Tutoring Using Google+ Hangouts





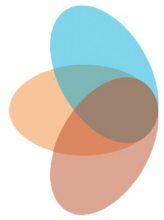
Remote Tutoring Using Google+ Hangouts





Remote Tutoring through the VAC – What is it?

Insert Video Here



Challenges & Strategies

- Challenges
 - Network/browser inconsistencies
 - Training & technical assistance
 - Google+ UI changes
- Strategies
 - Ethernet connection/Chrome browser
 - Ongoing feedback & technical assistance
 - On-line guides
 - Google Educational Enterprise account



Findings & Conclusions

- GPA unchanged (n=8; 3.26)
- Progress toward degree=one graduate
- Early in project – more to come!
- Great opportunity to learn about digital learning and *connectivism* vs. conventional models of learning
- Opportunity to learn about embracing innovation and technology



Contact Information

Deaf STEM Community Alliance

www.dhhvac.org