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### ONLINE TUTORING: FACE-TO-FACE AND THROUGH A LENS



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- Tutors
- Student Research Assistants: Jonathan MacDonald & Annette Tavernese



#### Objectives

- Define online tutoring
- Review previous online tutoring with D/HH students
- Examples from the Deaf and Hard of Hearing Virtual Academic Community (DHHVAC)
- Discuss findings from preliminary analysis of tutoring videos
- Q&A



### DHHVAC Model Barriers & Strategies

#### **Student Preparation**

Remote Tutoring
Remote Mentoring
Using G+ Hangouts

Remote Mentoring
Peer-to-Peer Interaction
Using G+ Private Community

**Socialization** 

Accessible
STEM Information
Using Website,
G+ Private Community,
& G+ Public Page

Accessible Media



#### Online Tutoring Defined

- Synchronous or real-time
  - Still face-to-face (like traditional office hours or tutoring), but mediated by the computer

- Asynchronous (delayed time)
  - Email or other exchanges that do not occur at the same time



### Synchronous Tutoring Functions

- Instruction
- Collaboration
- Support
- Socialization and informal exchange
- Extended outreach

(Finkelstein, 2006)

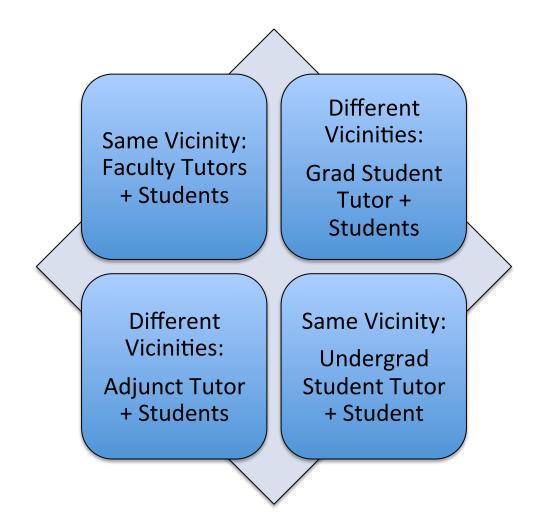


### Prior Online Tutoring Projects for D/HH Students

- Brown (2010)
  - High school students
  - Science classes
- Bryant (2011)
  - NTID
  - Writing course



#### **DHHVAC Tutoring Models**





- At least 140 synchronous tutoring sessions between February 2012-present:
  - 15 different tutors
  - 34 different students
  - 8 different topics

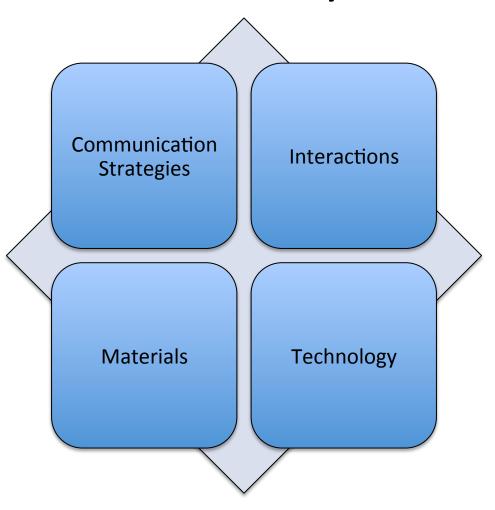
# Online Tutoring Examples from the Deaf STEM Community Alliance





- Sample: 21 videos (February 2012-April 2014)
- 3 tutors
- 5 students
- Courses:
  - Biochemistry (8)
  - Chemistry (2)
  - Math (1)
  - Physics (10)







- Communication Strategies
   (Simultaneous Communication, ASL only, Spoken English only)
  - Primarily Simultaneous Communication
    - More tutor-initiated than learner-initiated
    - Very few instances of grabbing attention
- Interactions
  - Asking questions, giving feedback or information,
     expressing understanding similar initiation tutor/learner
  - Initiating feedback for approval of opinion or response to a problem – more often tutor-initiated



- Materials
  - On-line course documents
    - Homework modules
    - Reference materials—dictionaries, journal articles
  - Hard-copy materials
    - Drawings, photos
    - Homework sheets
  - Text chat + ASL
  - Text chat only
- Technology
  - Very few tech problems
  - Very few instances of needing to instruct each other on how to use the technology



#### Discussion

- First step
  - Continue refining coding scheme
  - Adding more videos
- Tutoring is complex, not one-size-fits all
- Provides flexibility for both learner and tutor
- Good way to incorporate increasing online resources used in teaching classes
- With appropriate training, minimal technology problems