

## NADE PRESENTATION

### **Strategies for Teaching Math to Students who are Deaf & Hard of Hearing.**

Keep it Clear!

Keep it simple!

Keep it organized!

Make it Fun!

This is the basic principal behind the strategies that I have used to teach math to students enrolled in my beginning Algebra class. However, the dynamics of the classroom are changing. A beginning remedial algebra class now has a new sector.

#### Students who are Deaf & Hard of Hearing.

Bergen Community College (BCC), located in the metro New York area, is like similar institutions across the country facing a mounting challenge in providing remedial math instruction to growing numbers of students with disabilities and students who are educationally under prepared for college level mathematics courses.

Currently we offer over 250 sections of Developmental Mathematics each year with a total enrollment of about 6500. There are 450 students enrolled in sections of these classes who have documented disability or who are categorized as educationally disadvantaged students. These students come from a variety of educational backgrounds, including self-contained classrooms, resource rooms, and other settings where expectations for learning were low.

Over the past four years alone, the number of students with declared disabilities has steadily increased to 18% of the total student population. Accommodations including tutoring, sign language interpreters, extended time test taking, peer note-takers and readers have been used with considerable success. However, these accommodations may not be sufficient in supporting the population of students hearing loss and who communicate using sign language; and who may in fact have additional disabilities. The approaches to learning and/or learning styles of these students have yet to be closely examined, albeit high-risk, population.

In the spring of 2001, the Mathematics Discipline received support from our Center for Instructional Research and Development to develop strategies to enhance academic

success rates of remedial students with hearing loss. The purpose of the project was to help these students build the "gate keeper" mathematical skills needed for future success in science, mathematics, engineering, and technology (SMET) programs.

- First, students who are Deaf & hard of hearing need to develop independent modalities for self-instruction through supplements they can use by themselves.
- Second, the students who have not as yet embarked upon their developmental mathematics courses, or who have failed courses, should build a mathematical foundation of salient points, i.e., they need a jump start so as to level the playing field.

In response to these goals, and in collaboration with the Office of Specialized Services and the Center for Collegiate Deaf Education, *Mathematics Video Tapes, interpreted in American Sign Language* were produced.

#### WHY VIDEO'S?

- Most important, these videos allow the deaf student to become an independent learner.
- Videos can be used on an individual basis at the student's own pace, repeated as often as helpful. They can enrich formal classroom instruction and promote academic achievement. Students use the videos for the reinforcement of skills or for the introduction of new concepts. They can work without the supervision of an instructor or the need for an interpretive signer.
- The videos are consistent, using the same sign language interpreter for each lesson. The language of instruction is deliberately selected for ease of interpretation. For example words such as "subtraction" and "addition" which has the same interpreted sign as "negative" and "positive" have been replaced by more "sign able" words, like "combining".

**Please contact us with any additional information that may be relevant to this project.**

[lkass@bergen.edu](mailto:lkass@bergen.edu)

[Mwalker@bergen.edu](mailto:Mwalker@bergen.edu)

[Rfusco@bergen.edu](mailto:Rfusco@bergen.edu)

[Tivanko@bergen.edu](mailto:Tivanko@bergen.edu)

