Access to Communication for Deaf, Hard-of-Hearing and ESL Students in Blended Learning Courses

by

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Definition of Blended Learning at RIT

- 25-50% classroom lectures
- Other seat time replaced by instructor-guided online learning activities
  - Quizzes
  - Virtual projects (team and/or alone)
  - Synchronous chats
  - Asynchronous discussions

Traditional Classroom Challenges

- With Interpreters and Hearing Instructors
  - Lag Time
  - Difficulty in responding to Instructor Questions
  - Feel out of Sync
  - Not comfortable stopping flow to ask questions
  - Feel isolated or left out of interaction in mainstream settings

Online Learning

- Slows Synchronous pace
- Allows deaf, HH and ESL students more time to compose a response or ask a relevant question

Blended Learning

- Joins the best of traditional and online learning activities
- More universities involved using courseware management systems
- Academic leaders endorse active learning & use of instructional technology

Results from Other Studies with Other Student Populations

- University of Central Florida
- 2003-04 RIT survey without demographic information:
  - 95% course completion rates
  - 70% of students favored blended learning.
  - Faculty energized by redesigning for a blended format

RIT 2004-05 Study - Perception of Communication from 4 Groups

- Hearing
- Deaf
- Hard-of-Hearing
- English as a Second Language (ESL)

2004-05 Survey of All Blended Learning Students at RIT

- 3 quarters
- 582 students (53% response rate)
- 68% male, 32% female
- 96% full time, 4% part-time
- 85% undergraduate, 15% graduate
- 3% deaf, 4% hh, 93% hearing
- Within hearing group, 10% English second language

RIT Blended Survey, continued…

- 16 Likert items
- 2 open ended questions
- 4 demographic items

RIT Blended Survey, continued…

Two types of Likert Questions used:

1. Asked students to rate their **agreement** with specific statements using this five point scale:
5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree

Examples of these items include:
- "I learned more about my fellow students because part of this course was online"
- "I interacted more with fellow students because part of this course was online."

RIT Blended Survey, continued…

2. Asked students to compare their level of **interaction** in this blended course to more traditional courses that meet only in the classroom using this five point scale:
5 = Increased, 4 = Somewhat Increased, 3 = No Difference,
2 = Somewhat Decreased, 1 = Decreased

Examples of these ratings include:
- "The amount of interaction with other students"
- "The quality of your interaction with the professor."

RIT Blended Survey, continued…

The two open-ended questions were:

- "If more courses were offered like this (ones that meet in the classroom and online) what changes would you recommend"
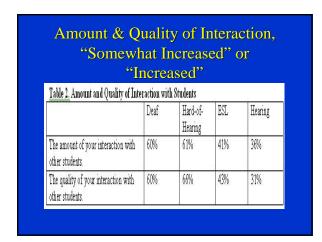- "What did you like best about this course?"

RIT Blended Survey, continued…

- Demographic Questions
- Finally, the survey asked four demographic questions:
1. Student workload (full or part-time)
2. hearing status (hearing, hard-of-hearing or deaf)
3. level of program (graduate or undergraduate)
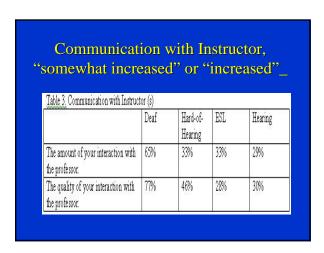4. If English is a second language (Yes, No)

Survey Results

Ease of Communication, "Agreed" or "Strongly Agreed"

Table 1. Communication with Peers

	Deaf	Hard-of-Hearing	ESL	Hearing
I learned more about my fellow students because part of this class was online.	60%	66%	38%	26%

Amount & Quality of Interaction, "Somewhat Increased" or "Increased"

Table 2. Amount and Quality of Interaction with Students

	Deaf	Hard-of-Hearing	ESL	Hearing
The amount of your interaction with other students.	60%	61%	41%	36%
The quality of your interaction with other students.	60%	66%	42%	31%

Amount & Quality of Interaction, Deaf and HH student Comments

- *"I think the online discussion is the best (part of) this class."*
- *"(I like) learning about other students who are in this class and their opinion and beliefs about the things we learn in class!"*
- *"I liked how I was able to interact more with other students, especially the hearing."*
- *"At least I get to read about other students' thoughts and opinions about the assigned readings and assignments. It allows room for learning and increased knowledge."*
- *"Neutrality and respect regardless of race and disability. Only respect you receive is from knowledge and opinions not based on your appearances."*

Communication with Instructor, "somewhat increased" or "increased"_

Table 3. Communication with Instructor (s)

	Deaf	Hard-of-Hearing	ESL	Hearing
The amount of your interaction with the professor.	65%	33%	33%	29%
The quality of your interaction with the professor.	77%	46%	28%	30%

Deaf and HH Comments relating to Communication with the Instructor

- *"Since no interpreters are on night class, it is more convenient for me to communicate with teacher and students online."*
- *"I seemed to have a greater voice in lending my opinion and questions regarding the topics in which I have received a great amount of feedback."*
- *"The study of cultural differences and applying it to my life was interesting, and the use of online postings was much more interactive for me."*
- *"More availability with the instructor…"*

Overall Satisfaction with Blended Experience, "Agreed or "Strongly Agreed"

Table 4. Overall Satisfaction

	Deaf	Hard-of-Hearing	ESL	Hearing
I like having part of the course online and part of it in the classroom	66%	70%	53%	62%
I like learning from online activities	60%	66%	45%	51%
Other students should have the opportunity to take a class like this in the future.	77%	75%	46%	55%

Deaf and HH perceived Advantages of Blended Learning

- *"I like the part where we can take part of the course in and out of the classroom."*
- *"I would say that is fun to do project but I rather try online for credit because I live off campus and sick of go to class to learn something new, I would like to get online and learn something new that mean time is gonna be flexible which is much better."*
- *"The fact that the course was combined with online time really allowed me to manage my time better. It is always a long day for me, so it takes a lot of stress away for me to be able to not go to class every time."*
- *"Flexible time in when to meet for class and for on my own time."*
- *"I can say this course is more independent for the students."*

Conclusion

- Most RIT students positive about blended format
- Deaf and HH most positive
  - Direct interaction with instructor and peers without interpreters
  - More level communication playing field

Questions?

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