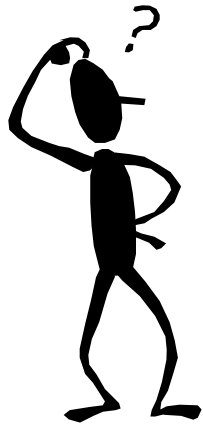


Myths and Facts for Hearing Loss

(How Hard of Hearing People Hear)



Beth Wilson, PhD

This presentation is available At www.nchearingloss.org/programs.htm
The author, Beth Wilson has given permission for anyone to use it.

BethJWilson@cs.com



Topics

- The Forgotten Child
- Explaining Hard of Hearing Issues
- Translating to the Classroom



Hearing Ability Varies

Okay	Problem
Quiet office	Noisy classroom
Carpeting	Bare floor
Bright room	Dark or inconsistent lighting
One-on-one	Discussion
Voice I know	New person
Close distance	Second row
Healthy and well-rested	Head cold
Can see the speaker	Tapes, people behind me

Hearing children do not experience this variation



Listening is an Active Sport

- I can listen in noise for a few minutes, but not for an hour
- I can listen in an ideal classroom without technology for an hour, but not all day
- I can run around the block, but I can't run in a marathon

**For hard of hearing people, the journey is at full speed.
The hearing people are allowed to walk.**



Explaining Hearing Loss Issues

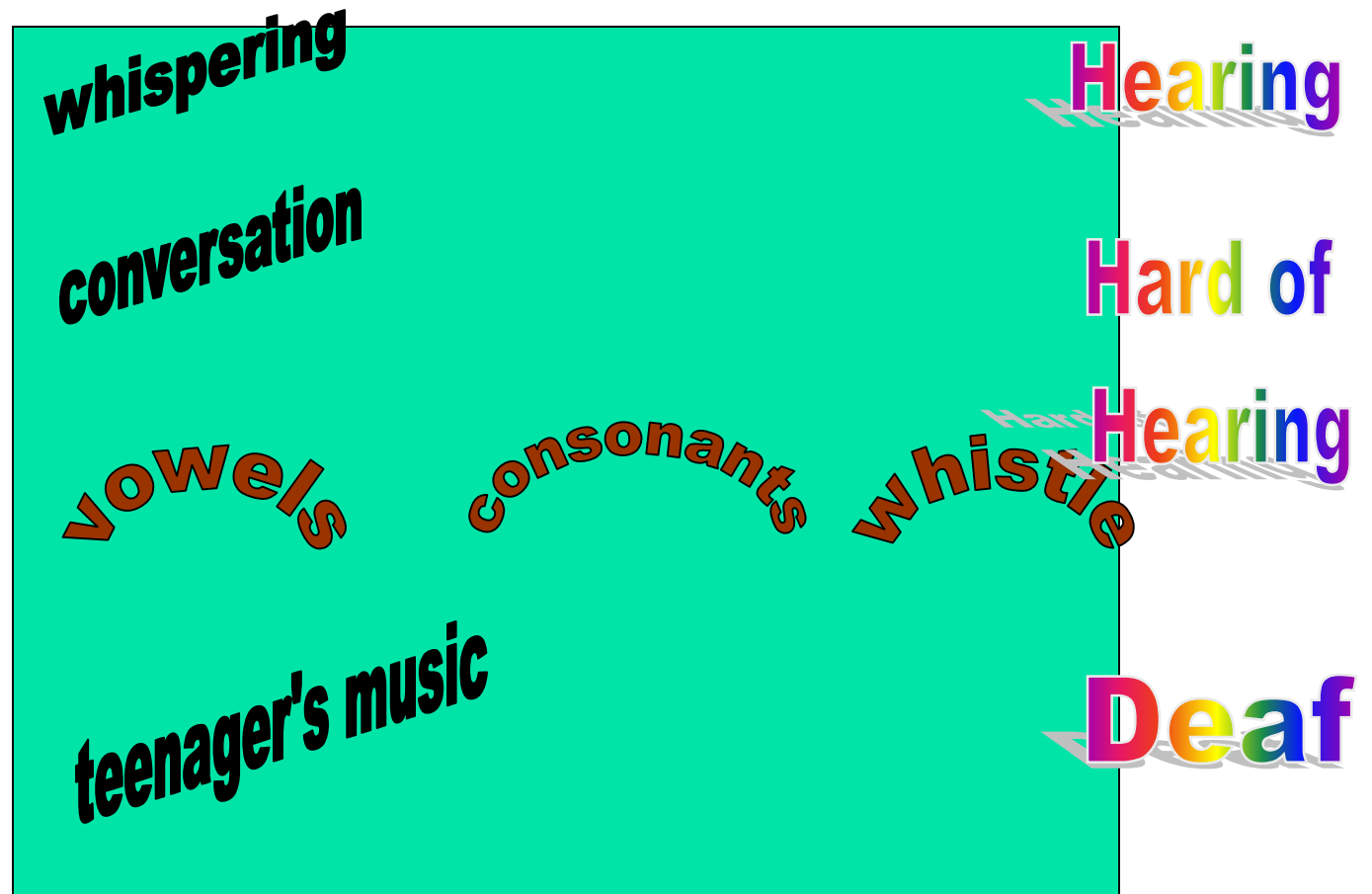
Hard of Hearing is Not Just Less Deaf





Medical Perspective

loudness



frequency



Cultural Labels

- Deaf
 - part of Deaf culture/community
 - deafness is an identity
- deaf
 - cannot hear well even with hearing aid
 - culturally hearing (translation: isolated)
- Hard of hearing
 - may hear some with hearing aid
 - too deaf to be hearing and too hearing to be Deaf
- My spouse thinks I can't hear

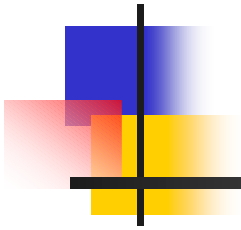


Audiogram is Partial Story

- Frequencies heard
- Volume required to hear frequencies

- Tinnitus? Recruitment?
- Listening skills
- Coping strategies
- Technology
- Sleep the night before

Are You Wearing Your
Hearing Aid?





Hearing Aid Facts

- Hearing aids do not “fix” hearing loss
 - not like glasses
 - external amplifier has to go through “bad” ear
- Problems with hearing aids
 - amplify background noise
 - can have interference from equipment
- Hearing aid helps, but is not total solution



Hearing Aid “Quality”

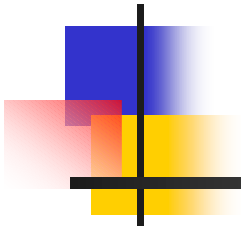
High cost digital aids



Low cost “invisible” aids

- Price does not always mean better fit
- Individual preference
 - Familiar tone
 - Listening environments
 - Gadget comfort level
- Fitting can be complex
 - Earmold
 - Programming
 - Tuning

But You Can Lipread





Fact: Lipreading is an Art

**You're hard of hearing!
So you can lipread, right?**

**Only when I want to
get myself in trouble...**

Hollywood Teaches Us:

**When someone loses their hearing they are able to lipread as
compensation**

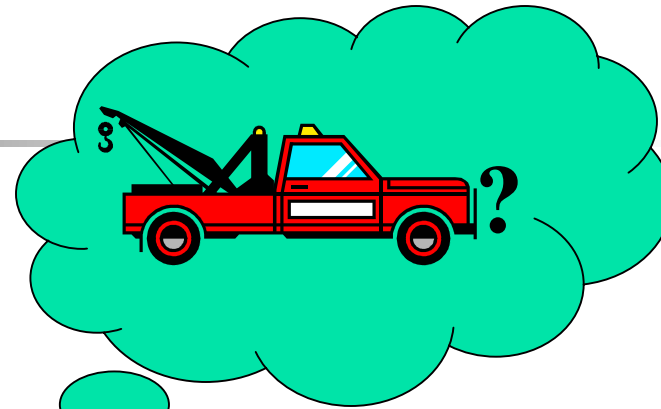
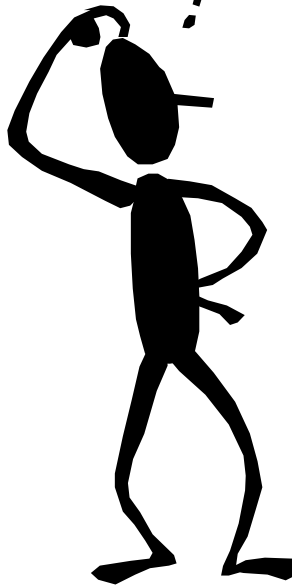
Reality Is:

Lipreading is a difficult skill that few are able to master

An Example

Can you bowl next week against the Tow Trucks?

Sure --
I'll be there!

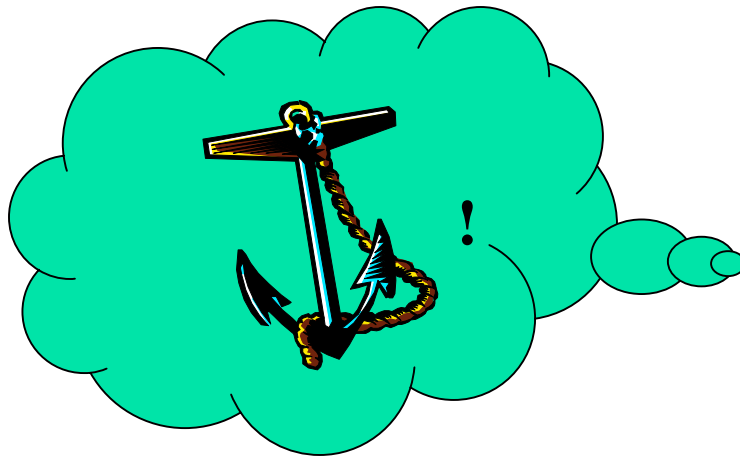


Which Team is it Really?

Navy Department 20
Navy Department 40
Navy Department 60
Raytheon A
Raytheon B
Coast Guard
Army
Marines



The Answer



**I hear the
COAST GUARD
has a good team!**



Did You Know?

- Lipreading is only successful
 - when the speaker never moves
 - all the words are known
 - the words are predictable
- Only 1/3 of speech is visible on the lips

**An “expert” lipreader is guessing at
66% of what is said!**



How Does Lipreading Work?

- | | | | |
|------------|--|---|------------|
| “f” | ● How air is stopped (teeth, lips, none) | ● | “s” |
| | ● Inside the mouth | ● | |
| | ● Throat | ● | |
| | ● Vocal Chords | ● | |

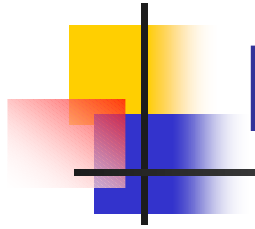
“s” versus “f”

same except for the highest frequency
sound the same with a high frequency loss
they look different on the lips

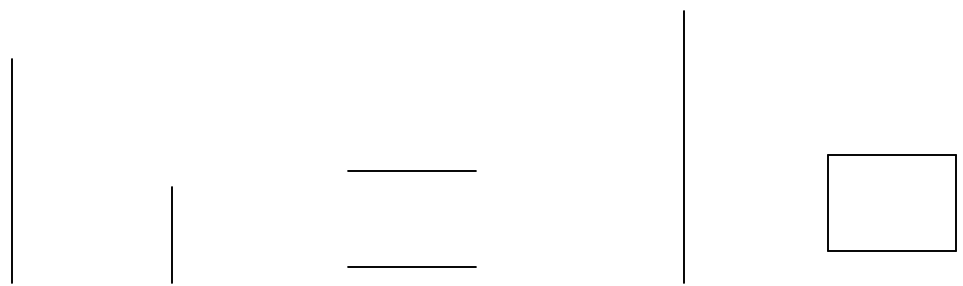
How about if you sit closer?

We can turn up the volume...





Louder Not Necessarily Clearer



What is this word?



Louder Not Necessarily Clearer



Now it's louder...



Louder Not Necessarily Clearer

h e l p

Now it's clearer.



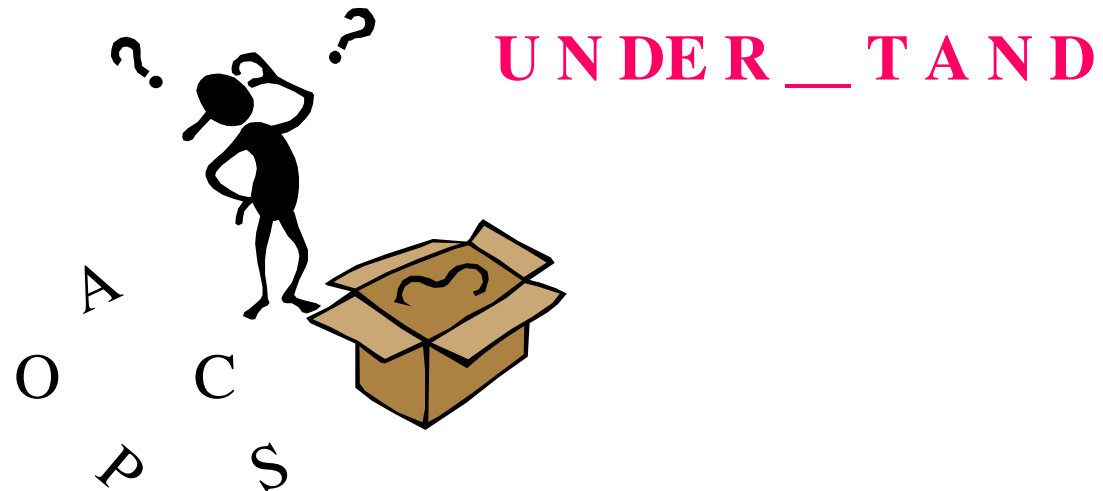
Ambiguity is the Real Problem

- A few numbers that sound the same
 - 15, 16, 50, 60
 - “Fifteen, that is, one-five.”
- Letters sound the same
 - B, C, D, E, G, P, T, V, Z
 - “C as in Cat”
- Try it again, I got part of it
- Sometimes I need you to use a different word



Filling in the Gaps

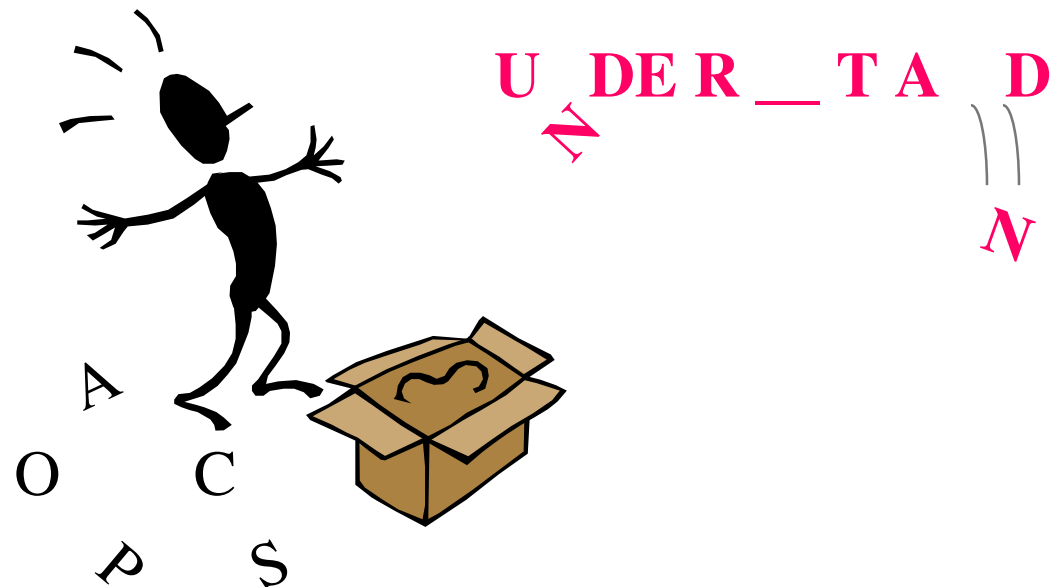
Hard of Hearing People Play
“fill in the gaps”
to guess at the missing notes





Losing the Race

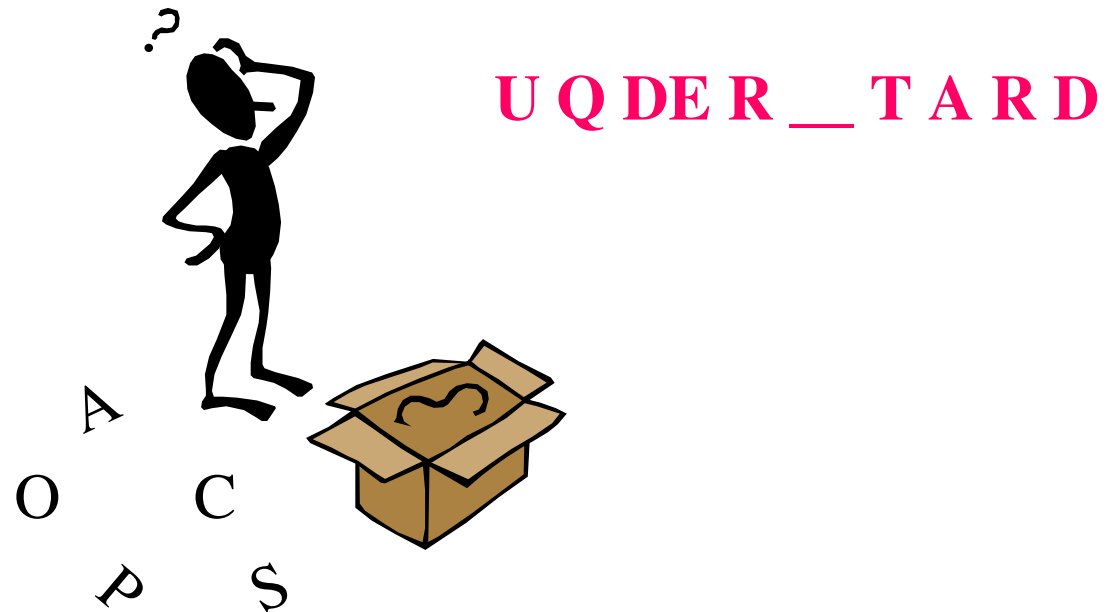
In noise there are more gaps to fill.





Competing Speech Is Worst

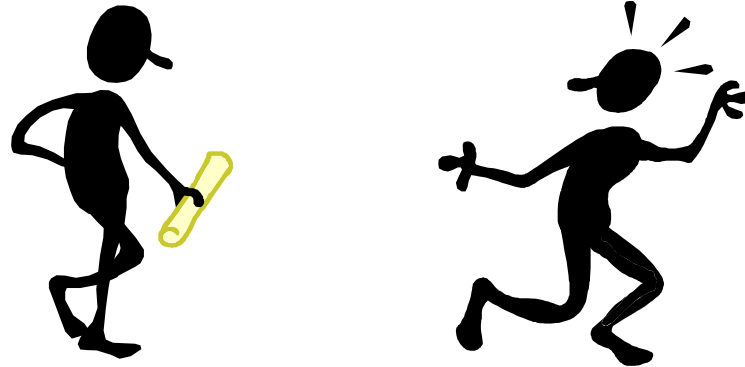
With nearby conversations there are gaps to fill and errors to correct





Time Delay to Fill in the Gaps

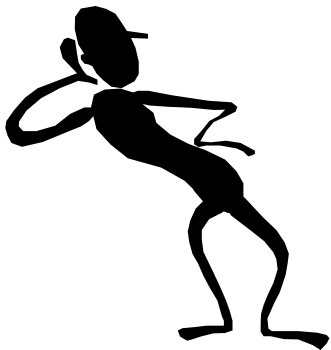
When the next phrase arrives before sorting out the previous one, it becomes too hard to keep up.



People with hearing loss need extra processing time to listen.

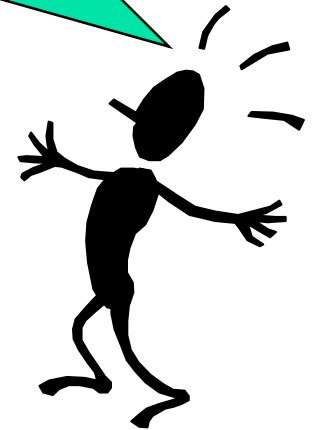
Very Little Usable Volume

Can you turn it up,
I can't understand
the program



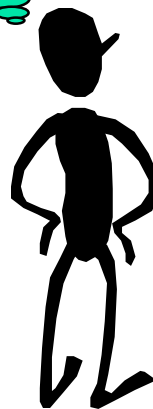
Volume = 5

Can you turn it down,
I can't think over here.



Volume = 3

Perfect



Volume = 8

Ouch





A Common Phenomenon for Hard of Hearing People

- Need “8” to understand
- Need “3” to ignore
- Everything in between is useless

**Source of misunderstanding:
“they have selective hearing”
“this noise won’t bother them”**



Confidence about Hearing

- Experience in guessing wrong
- Not confident about what was “heard”
- Examples:
 - “Are they late, or did I get the arrangements wrong”
 - “Yes, I’ll give her the message” “I didn’t understand them, you’ll have to call back”

Not enough to say “did you understand”,
Need to ask for information to be repeated back



“I Think I Hear Fine”

- Poor mitigation strategies
 - Let me know if you miss anything
 - Did you hear everything okay?
 - *Same as asking: Are you asleep?*
- Person with hearing loss is worst judge of what they heard
- My biggest problem is not what I didn't hear, but what I think I did hear



Communication

- Communication is not about
 - what is said
 - how it is said

Communication is About
What is Understood



My Hearing Loss

- Hearing loss is a challenge, not a limitation
- Hearing loss is something you share with everyone you attempt to communicate with
- Accommodation is a tool, not a weapon
- Ears are not important – only what is in between
- What do you mean I can't... Watch me.
- We can talk about my hearing loss.
- I want you to understand.

BethJWilson@cs.com