

*From Infant Babbling to Adult Speech:
Helping Children with Down Syndrome Develop Understandable Speech
Libby Kumin, Ph.D., CCC-SLP
(Speech Pathologist since '68, w/kids w/DS since '80)*

2 Books- Early Communication Skills/Classroom, Speech and Language/older kids (on the way)

9 Resource Guides (see handout) based on age level that can be downloaded

Video- "What Did You Say? A Guide to Speech Intelligibility in People w/DS (2006)

Speech Intelligibility:

Is the "understandability" of speech, ie. how easy or difficult is it for the listener to understand what the speaker is saying

Evaluation of speech intelligibility is a global diagnosis, subjective and depends on many factors ie familiar vs. unfamiliar listeners. It's difficult to measure- no standardized test.

95% of families (1,000) said children were difficult to understand outside of the family. Goal- to be understood by anyone in any situation, not just most familiar people.

*Need to create a profile (see handout) and use w/SLP.
Just the diagnosis doesn't point out specific methods to treat.*

There is no speech problem in kids w/DS that the typical population doesn't have. Label DS and then don't do anything about it- very successful when specify and treat.

Don't have to wait until start speaking to work on speech!

That's wrong and illegal!

Feeding therapy works towards speech therapy.

Pre-speech skills lead to speaking. A lot goes on before they speak.

Begin working early on muscles and movements.

What Affects Speech Intelligibility?

- *Anatomical factors- lips, tongue, palate, how jaws relate, tonsils, ears*
- *Physiological factors- lip & tongue posture/movement, trunk stability, breath control/support*
- *Neurofunctional Level- oral motor, motor planning/apraxia, sequencing, swallow/feeding pattern*
- *Perceptual/speech symptoms- sound errors (articulation), rate, fluency, prosody (rhythm)*
- *Nonverbal factors- eye contact, gestures, facial expressions, proxemics (social space)*

Apraxia/CAS- Childhood Apraxia Speech;

Studies in the past have focused on typical kids.

2001 study of 7 kids w/DS who all had apraxia- used typical treatment

Result- Apraxia methods worked!

All kids have hardware (brain, mouth lips).

Kids w/out Apraxia have software (automatic, built in).

Kids w/Apraxia have hardware, not software. Not pre-programmed.

** Need to teach movements ie. visual cueing “Me”- touch mouth, “Ghan”*

Therapy usually teaches; short to long and simple to complex. Involves movement and cues.

Kids become “locked in” if don’t get treated for Apraxia.

Apraxia is treatable- can identify and get therapy (see Apraxiakids.org)

Nothing lost in trying the approach for Apraxia.

If you think they have Apraxia- try it!

Information is used “badly” to keep you from using therapy.

Don’t accept- they learned all they will by 4!

Don’t accept “lazy” therapists who don’t want to do the extra therapy necessary for Apraxia.

Red Flags (in resource guide and NDSC website);

- *quiet good babies, little cooing or babbling*
- *difficulties feeding*
- *late talkers (avg for kids w/DS is 3-4, by age 5- use CAS methods)*
- *usually develop gestures*
- *in early words, they omit the 1st sound ie. up for cup, og for dog*
- *limited number of speech sounds or uses vowels often, not consonants*
- *consistency- words said correctly and then disappear. Sometimes you see it, sometimes you don’t*

3 Tests for Apraxia;

1. Kaufman Speech Praxis Test

2. Apraxia Profile

3. Verbal Motor Production Assessment for Children

The problem w/these is that the child needs to speak. Kumin believes can diagnose by history and description.

Check out chart w/symptoms, if you see your child there, it’s likely Apraxia methods would work.

Word “developmental” = not good to get insurance

“Apraxia” = more services

Therapy Approaches for CAS (see online article):

- *oral motor- practice movements for speech sound*
- *phonemic & articulation approaches- teach to make sounds and combine sounds into syllables*
- *visual cueing- prompt w/physical cues*
- *total communication approaches- use word in addition to sign or cues*
- *prosodic approaches (melodic intonation therapy)- use singing and rhythm to learn sound combinations*
- *shaping approaches- ie Kaufman Praxis Treatment Kit- na-nana-banana*

At Home:

- *use singing and melody*
- *encourage vocal play*
- *imitate sounds and then vary*
- *accept word approximations*
- *practice consonant/vowel combos (lalala)*
- *teach scripts- daily things*
- *use familiar verbal routines w/gestures (itsy bitsy spider and other hand rhymes)*
- *read books w/repeating lines (monkeys jumping on the bed)*
- *use cueing systems (work w/SLP)*

Libby Kumin-

“If people can’t be understood, they’re underestimated. They don’t get opportunities to show what they can do.

When people understand you, doors open, at school and at work.

Our children have so much to share- need to make it possible for them to fully engage.”

IEP Planning for School-Based Speech & Language Programs;

- Need and Eligibility
Yes, they need it. SLP knows it, but won't admit. If they say they need, the county has to pay for it.
Can get eligibility criteria from schools.
- Writing Language Goals and Objectives
All based on the individual- NOT general for all kids w/DS. There is no one pattern!
- Writing Speech Goals and Objectives
Goal is to maximize speech and language. Can improve well into adulthood.
Easier to get language therapy than speech therapy.
- Pull Out/Push In
"Out" for therapy or "In for classroom
- Supplementary Aids and Services
Modifying and adapting curriculum- be sure to put in who does it.
Needs to be written in IEP. Write in- who re-writes homework and tests or the parent will end up doing it.
- Home School Communication- A BIGGY!
Model what parent should be doing w/child this week.
SLP needs to model what you should do this week and what comes next.
All Therapy has to happen at home. "Tell me what to do know." Parent makes happen, not SLP!
- Speech and Language Behavior
ie Is he tired, hungry, too loud? Does he not like Science so he gets out of it?
Or, does he need help? Assisted technology- some way to say I need help or a break.

Worksheets and Assignments- *Need to write in that an aid (more likely) or SLP will modify to make more clear- give cues. If it's not written, you'll have to do it.*

School tests focus on linguistics and math- two of the most difficult for kids w/DS.

*Multiple Intelligences (Gardner) includes; linguistic, logical mathematical, naturalist, *musical, bodily- kinesthetic, *spatial,* inter/intra personal.*

IEP Planning Guide for Language Intervention- *your school system will have its own IEP form that will be used for record keeping. The speech-language section will be very brief. This form is designed to help you flesh out the official form. It is a way of reframing the info so that you are sure that all of the relevant info is written into the IEP. It can be used at the IEP meeting or after the plan is designed, but before you actually sign the IEP. The SLP can help you fill this form out, or you can use it as a guide fro planning. It can be used every time the IEP team meets for planning sessions.*