Some examples of goals with supporting objectives:

- Bridget will be able to maintain a topic over three conversational turns.
- Meghan will be able to use reciprocal gaze in conversation 90% of the time.
- Jordan will be able to sequence sounds in speech in 3-syllable words 80% of the time.
- Emma will be able to maintain closed mouth posture at rest.
- Bridget will be able to maintain eye contact.
- Kevin will improve his articulation.

Short-term objectives:

- Emma will be able to maintain closed mouth posture at rest 90% of the time by June 1.
- Kevin will produce /z/ correctly in initial position 90% of the time in single-word picture identification by June 10.
- Kevin will produce /s/ and /z/ correctly 90% of the time in conversation by the end of the third marking period.

For more information on IEP goals, see the DVD bonus feature “Speech Intelligibility and Your Child’s IEP.”

Resources

For more information, you may want to read:


Biographical Information for Libby Kumin

Libby Kumin, Ph.D., CCC-SLP, is a Professor in the Department of Speech-Language Pathology/Audiology at Loyola College in Maryland where she founded the Down Syndrome Center for Excellence. She is the author of Early Communication Skills for Children with Down Syndrome (Woodbine House, 2003) and Classroom Language Skills for Children with Down Syndrome (Woodbine House, 2001). Dr. Kumin is listed in Who’s Who in America and Who’s Who in Medicine and Healthcare. She works extensively with families and professionals through presentations and workshops and is active in research in speech and language issues for infants, toddlers, children, adolescents, and adults with Down syndrome.

Many children and adults with Down syndrome have difficulties with speech intelligibility—with speaking clearly enough for others to understand them. In fact, in a survey of 937 parents, over 95 percent of them reported that people other than family members sometimes, often, or always had trouble understanding the speech of their children with Down syndrome (Kumin, 1994).

Fortunately, there are many effective ways to work with children with Down syndrome to improve their speech intelligibility. For treatment to be effective, however, there must be a clear understanding of the precise factors that are contributing to the person’s problems with speech intelligibility. There are dozens of problems that can interfere with clear speech in children and adults with Down syndrome, all of which are treated in different ways. Each factor, as well as the specific combination of factors, will affect which methods are used in treatment.
In What Did You Say?, Dr. Libby Kumin, the renowned expert on speech and language skills in people with Down syndrome, illuminates each of the most common difficulties underlying speech intelligibility problems in Down syndrome. Factors explored include:

1. Anatomical Factors — Differences in the structure of the mouth and face, including a mouth that is often relatively small in relation to the size of the tongue

2. Physiological Factors — Differences with movement of the articulators (lips, tongue, teeth, jaw, hard and soft palate), such as raising the tongue tip to the alveolar ridge for /t/

3. Neurofunctional Level — Differences with oral motor skills (muscle strength in the mouth and face, range of motion, coordination) and with sequencing and combining sounds into words (as with childhood apraxia

4. Perceptual/Speech Symptoms — What the listener hears; for instance, light can make it harder to understand the speaker

5. Pragmatic Language Factors — How the environment or setting affects intelligibility (for instance, background noise or insufficient light)

6. Nonverbal Factors — Social and interactional uses of speech, including the ability to take turns during conversation, start and end conversations, stay on topic, and adapt speech and language to different partners

7. Language Message Factors — How the listener’s familiarity with the topic being communicated affects what he understands (for example, it may be easier to understand your child’s greetings than a story he tells you about an incident you did not witness)

8. External/Environmental Factors — How the listener’s familiarity with the topic being communicated affects what he understands (for example, it may be easier to understand your child’s greetings than a story he tells you about an incident you did not witness)

Once the specific problems underlying a child’s intelligibility problems have been pinpointed, they can be treated as outlined below. Speech is a neurological task that needs practice. Treatment doesn’t just happen in speech therapy with the speech-language pathologist (SLP). Rather, parents need to be actively involved in carrying out a home program for the child in order to make maximum progress. SLP/parent collaboration is very important.

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Speech Intelligibility Treatment Program Plan for Children with Down Syndrome


Name: ___________________________ Date of Birth: ___________________________

A comprehensive treatment plan for an individual with Down syndrome may include any of the following as needed:

I. Exercise programs:
   A. Oral motor muscle strengthening
   B. Intervention for feeding problems
   C. Intervention for tongue thrust/swallowing problems

II. Muscle programming and coordination axis of speech
   A. Intervention for childhood apraxia of speech
   B. Intervention for oral apraxia

III. Speech production level:
   A. Treatment for articulation
   B. Treatment for phonological processes
   C. Treatment for volume and loudness
   D. Voice therapy
   E. Treatment for resonance (oral/nasal balance)
   F. Rate control
   G. Treatment for prosody
   H. Fluency therapy

IV. Pragmatic/language level:
   A. Treatment for nonverbal factors
   B. Language skills that affect intelligibility
   C. Conversational skills
   D. Narrative discourse skills

V. Assistive Technology needs:
   A. Augmentative/alternative communication for classroom use
   B. Augmentative communication for general use
   C. Assistive listening devices

VI. Supports and modifications needed

VII. Referrals needed:
   A. Otolaryngologist (ENT)
   B. Audiologist
   C. Neurologist
   D. Psychologist
   E. Sensory Integration Specialist
   F. Feeding specialist
   G. Other

Addressing Speech Intelligibility in Your Child’s IEP

The school’s treatment plan for your child’s speech intelligibility is not official unless it is included in your child’s individualized education program (IEP). For all areas (including speech and language) in which your child needs special services, the following should be included in the IEP:

- Present levels of performance (PLOP)
- Measurable goals and objectives
- How will progress be measured?
- Statement of special education and related services—What services your child will receive, where, and when. For example, individual speech and language therapy, provided twice a week for thirty minutes at a time, once in the classroom and once in the therapy room.
- Supplementary aids and services (e.g., a communication aide)
- Program modifications (e.g., if the language of worksheets needs to be modified, the IEP should indicate who will be responsible for modifying worksheets each day, who will implement them, and who will grade them)
- Supports for school personnel (e.g., a workshop to learn sign language or assistance in learning to program and use an assistive technology device)
- School and home communication plan (see below)
- Home speech intelligibility practice program

School-home and Home-school Communication Plan

The speech-language pathologist (SLP), teachers, and family form the core of the treatment team that will help the child improve his or her speech. Teachers need information on what to work on in class, and how language affects classroom performance. Families need information on what to work on at home. For example, are there practice exercises that can help strengthen the lip and tongue muscles? The SLP needs information on what the child is learning in the classroom and at home. Are there other skills that the child needs in the classroom or at home that the SLP can target in therapy? To be effective, communication between home and school:

- must be frequent (at least once weekly)
- must be home-to-school and school-to-home
- must consider whether the skills the child is learning relate to real life
- must evaluate whether the skills the child is learning are generalizing to communication outside of therapy.