Illinois Best Practices Guide For the Education of Students who are Deaf / Hard of Hearing

Illinois State Board of Education
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The content of this guide was developed by members of Illinois Supervisors of Programs for Deaf and Hard of Hearing Individuals (ISHI)
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INTRODUCTION
Everything an individual does or a society accomplishes has communication as its foundation. “Deaf and hard of hearing students have one thing in common: their universal need for communication, from which all...educational determinations should flow.” (Siegel, 2000) This includes complete auditory and/or visual access in all educational environments. When making educational decisions, communication needs of a student who is deaf or hard of hearing need to be identified and strongly considered. Access to related services, technology, accommodations, and modifications in the educational setting does not guarantee successful access to all aspects of communication and language to foster social, emotional, and academic development.

The US Department of Education published guidance for policies regarding the education of students who are deaf and hard of hearing, which was issued on October 30, 1992 and re-issued on February 4, 1994, and incorporated into the 1997 Amendments to the Individuals with Disabilities Education Act. This policy guidance explained that children who are deaf or hard of hearing need “direct and meaningful communication with peers and teachers.” Without direct communication, the policy states, the educational program is not providing the Free Appropriate Public Education required by law. For children who communicate using American Sign Language or Cued Speech, this means that their peers, teachers, speech and language pathologists, counselors, social workers and psychologists need to be proficient in American Sign Language or Cued Speech. Support for each student’s language and communication development is paramount to the student’s success.
IDENTIFICATION OF HEARING LOSS

The Child Vision and Hearing Test Act, administered by the Illinois Department of Public Health, requires that hearing screening services be provided annually for all preschool children three years of age or older in any public or private educational program or licensed child care facility. Hearing screening services in public, independent private and parochial schools shall be provided annually for all students in kindergarten, grades one, two, and three as well as all special education students. Hearing screening services are provided after grade three for teacher referrals, and transfer students who have not been previously screened. Hearing screening is recommended in grades 4, 6, 8, 10 and 12. (Hearing Screening (77 IL ADM.CODE675) Section 675.110 Frequency of screening, Amended at 24 Ill. Reg. 4956, effective March 20, 2000))

To assure a comprehensive “child-find” follow-up system, case findings of the Illinois Department of Public Health, in conjunction with local special education programs, should adhere to specific and consistent procedures. Information from the point of identification (hearing screening failures) should be appropriately transferred to the supervisor of programs for students who are deaf or hard of hearing. This information is usually provided via a copy of the Illinois Department of Public Health audiogram form completed by an IDPH certified Audiometric Technician. The educational screening should take place as soon as possible in the follow-up process.

After a student is diagnosed as deaf or hard of hearing, a specialized team comprised of professionals with expertise in hearing loss and communication with students who are deaf or hard of hearing, should conduct all initial case studies and re-evaluations. This diagnostic team should be comprised of an educational audiologist, a social worker, a psychologist, a speech and language pathologist, an educator of students who are deaf or hard of hearing, and other professionals deemed necessary by the individual situation of the student.
EARLY INTERVENTION HEARING SERVICE GUIDELINES
Hearing and Vision Early Intervention Outreach and the Illinois Department of Human Services,
Division of Community Health and Prevention, Bureau of Early Intervention state:

“Illinois mandated the Hearing Screening for Newborns Act effective as of December 31, 2002, based on results of longitudinal studies which showed that children with hearing loss who were identified and received early intervention prior to six months of age had reduced permanent developmental delays compared to peers identified after six months of age. With this screening taking place in all Illinois birthing hospitals, more infants are being identified and referred to Child and Family Connections (CFC). Since the Illinois Department of Public Health (IDPH) is responsible for tracking all infants, most referrals will be faxed from IDPH. The Bureau of Early Intervention or HV/EIO may assist IDPH with locating the correct CFC and forwarding the referral, but in this case, IDPH is the official referral source. The CFC may also receive a referral from other sources such as the parent, hospital, pediatrician, audiologist, or Division of Specialized Care for Children (DSCC).” (The Early Intervention Hearing Service Guidelines developed by HVEIO and the DHS Bureau of Early Intervention, version September 2011.)

Eligibility Criteria for Illinois Early Intervention:
A child can be determined eligible for EI based upon developmental delay, a diagnosed physical or mental condition that typically results in developmental delay or is at risk of substantial delay based upon defined criteria. The criteria for EI’s identified medical condition related to hearing loss resulting in high probability of developmental delay took effect January 23, 2008 with implementation of the Amended EI Rule 500 Appendix E. It states:

“Hearing loss of 30 decibels (dB) or greater at any two of the following frequencies: 500, 1000, 2000, 4000, and 8000 Hertz (Hz) or hearing loss of 35 dB or greater at any one of the following frequencies: 500, 1000, and 2000 (Hz) involving one or both ears.”

Early Intervention Child and Family Connections offices should ensure that evaluation is completed in all five developmental domain areas. The area of physical development includes vision and hearing. Screening results from Universal Newborn Hearing Screening can be considered for children less than six months of age. Hearing loss can be progressive or be acquired after birth. If the child is older than six months and has not had a hearing screening within the last six months, an effort should be made to determine if that child needs a hearing screening/evaluation completed by an audiologist. Hearing and Vision Early Intervention Outreach (HVEIO) has developed a functional screening tool for hearing that is helpful in identifying these children. Trainings by HVEIO on using this tool are provided throughout the state. The tool is available on the HVEIO website and as an addendum to this document. Any member of the evaluation team may complete this Functional Hearing Screening.
**Important Facts on the Impact of Hearing Loss on Education**

- Section 300.346 of I.D.E.A. states: “Consider the communication needs of the child, and in the case of a child who is deaf or hard of hearing, consider the child’s language and communication needs, opportunities for direct communications with peers and professional personnel in the child’s language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the child’s language and communication mode;...”

- Hearing screening procedures identify less than 50% of the students who are deaf or hard of hearing.

- Medically, a student is not considered to have abnormal hearing until his/her hearing is below 25 decibels (dB). School screenings are conducted at 20-25 dB

- The typical ear infection causes a mild hearing loss. Two-thirds of preschoolers have at least one episode of ear infections and 16% of preschoolers have six or more episodes. One-half of all episodes of ear infections go undetected by parents or teachers. In spite of good medical follow up, 10% of preschoolers continue to have chronic ear infections during critical language development years.

- Sufficient data is available to suggest that students with early recurrent ear infections are at risk for developing delays in auditory, language and academic skills.

- Students whose hearing loss is 30 dB or greater in only one ear (unilateral hearing loss) have 10 times the risk for academic concerns. Almost 50% of students with a unilateral hearing loss are receiving support services in school.

- In the presence of typical levels of classroom noise, a student’s ability to understand may drop to 60% or even as low as 27% if the room does not have carpeting. The noisy classroom also reduces the effectiveness of a student’s amplification in the regular education setting.
TYPES OF HEARING LOSS

Hearing loss can happen in any part of the ear. This includes the outer ear, middle ear and the inner ear. Hearing loss can occur in one of these places or in more than one place. Each type of hearing loss has a different name and has different possible treatments.

Conductive Hearing Loss
A conductive hearing loss involves the outer and/or middle ear. A conductive loss prevents sound from moving effectively through the outer and/or middle ear to the inner ear. Sounds that normally enter the canals are reduced.

Causes of Conductive Hearing Loss:
- Atresia – absence of the opening to the ear canal
- Malformations of the middle ear – including otosclerosis, which is a bone growth disorder
- Middle ear infections (otitis media) or fluid in the middle ear
- Obstruction of the ear canal by ear wax or foreign objects
- Microtia – underdeveloped pinna

Treatment of Conductive Hearing Loss
Most conductive hearing losses can be treated and corrected with medication, surgery or by amplifying sound through a hearing aid (conventional or osseointegrated implant [e.g., BAHA or Ponto]. Hearing aids can be very effective in compensating for a conductive hearing loss when surgical or medical treatment is not an option.

Sensorineural Hearing Loss
This type of hearing loss is the most common permanent hearing loss in students and involves the inner ear or the auditory nerve. Sensorineural hearing loss results when tiny hair cells inside the cochlea are not fully formed or they are damaged. It may also occur when the auditory nerve does not function properly, though this is less common.

Auditory Neuropathy
Auditory neuropathy, also known as auditory dysynchrony or auditory neuropathy spectrum disorder (ANSD), is a type of hearing loss in which the outer hair cells in the cochlea are present and functional, but sound is not transmitted effectively via the auditory nerve to the auditory cortex of the brain.

Some Causes of Sensorineural Hearing Loss
- Abnormal development of the inner ear structures during gestation
- Genetic or family history of hearing loss
- Damage to the inner ear or auditory nerve from illness before birth
- Maternal Rubella
- Toxoplasmosis
- Cytomegalovirus (CMV)
Treatment
Sensorineural hearing loss is generally permanent and cannot be treated by medication or corrective surgery. However, the most effective way to compensate for this type of hearing loss is utilization of hearing aids or cochlear implants.

Several factors (social, emotional or audiological) affect the decision for a student to use hearing aids, get a cochlear implant, or do neither. Depending on the degree of hearing loss, hearing aids can be very effective in providing students improved sound awareness. However, students with severe to profound hearing loss typically do not understand speech clearly, even with amplification. There are standard audiological considerations for choosing between hearing aids or cochlear implants.

Mixed Hearing Loss
A mixed hearing loss occurs in both the outer/middle ear and in the inner ear. It is a combination of a conductive hearing loss and sensorineural hearing loss.

Unilateral Hearing Loss
A unilateral hearing loss occurs in only one ear. It can be conductive, sensorineural, or mixed. Although a student with this loss has good hearing in one ear, s/he may have difficulty knowing where sound is coming from, hearing in noisy environments, and hearing on the affected side.

Any degree of hearing loss is an educational concern. Oyler, Oyler, and Matkin (1987) reported unilateral losses are generally identified at a later age, and the educational impact of this type of hearing loss is often overlooked.

Students with a unilateral hearing loss can process speech and generally will develop near normal speech and language skills. They may exhibit poor localization and poor speech discrimination abilities, particularly in environments with adverse listening conditions (typical classroom settings). They may also demonstrate below average receptive language skills.

A student with unilateral hearing loss has a higher risk for academic failure than the general school population. This is especially true for students who have acquired their hearing loss at an early age. Preferential seating may help, however, additional efforts/supports may be needed to overcome the listening difficulties they encounter in the educational setting.
**Progressive Hearing Loss**
A progressive hearing loss occurs when a student loses their hearing over time. A baby may be able to hear at birth and gradually lose hearing. If a baby passes the newborn hearing screening, this does not ensure that s/he will always have normal hearing. Gradual conductive, sensorineural, or mixed hearing loss – may occur any time after birth.

**Fluctuating Hearing Loss**
This type of hearing loss refers to hearing levels that change, or fluctuate. A student may have better hearing on some days and poorer hearing on other days. A common cause of fluctuating hearing loss is otitis media, or middle ear infection with fluid. There are also some conditions such as Enlarged Vestibular Aqueduct that cause hearing fluctuations.

**Occluding Wax**
Occluding wax can cause a fluctuating hearing loss. Wax can build up in the ear canal and block sound from reaching the inner ear, causing a drop in hearing. Hearing is usually worse when the ear is completely occluded with wax. This hearing loss can fluctuate from day to day or week to week as even a small opening in the wax can allow some sound to pass through. Once the wax has been removed, hearing is restored to normal as this is not a permanent type of hearing loss.

A student with a hearing loss due to occluding wax can miss up to 25-40% of the speech signal on any given day. The degree of difficulty experienced will depend on the noise level in the room, distance from the speaker and the configuration of the hearing loss on that day. When the ear becomes totally occluded, the student may miss 50% or more of classroom directions and discussions, especially when voices are faint or the speaker is not in the line of vision. The student may begin to experience a negative impact on self-esteem and may be perceived as “hearing when he/she wants to,” “daydreaming,” or “not paying attention.” The student may begin to have increasing difficulty suppressing background noise which makes the learning environment stressful. This student may be more fatigued than their peers due to the listening effort required of them.

**AUDITORY PROCESSING DISORDER (APD)**
APD is an auditory deficit that is not the result of a hearing loss or other higher-order cognitive, language, or related disorder. In its very broadest sense, APD refers to how the central nervous system (CNS) uses auditory information.

Students with APD may exhibit a variety of listening and related complaints. For example, they may have difficulty understanding speech in noisy environments, following directions, and discriminating (or telling the difference between) similar-sounding speech sounds. Sometimes they may behave as if a hearing loss is present, often asking for repetition or clarification. In school, students with APD may have difficulty with spelling, reading, and understanding information presented verbally in the classroom. Not all language and learning problems are
due to APD, and all cases of APD do not lead to language and learning problems. APD cannot be diagnosed from a symptoms checklist. No matter how many symptoms of APD a student may have, only careful and accurate diagnostics can determine the underlying cause.

The actual diagnosis of APD must be made by an audiologist. Most of the tests of APD require that a student be at least 7 or 8 years of age because the variability in brain function is so marked in younger children that test interpretation may not be possible. APD may manifest itself in a variety of ways. Therefore, it is necessary to determine the type of auditory deficit a given student exhibits so that individualized management and treatment activities may be recommended that address specific areas of difficulty.

Treatment of APD must be highly individualized and deficit-specific. It generally focuses on three primary areas: changing the learning or communication environment, recruiting higher-order skills to help compensate for the disorder, and remediation of the auditory deficit itself. There is no one treatment approach that is appropriate for all children with APD; the degree to which an individual child’s auditory deficits will improve with therapy cannot be determined in advance.  (Excerpt from American Speech-Language-Hearing Association)

Range of Hearing Loss and Potential Effects
The following charts, created by Karen Anderson and Noel Matkin, help to explain what sounds a student may/may not hear without amplification based on the degree of hearing loss. It
identifies how amplification may help a student and the potential effects the hearing loss might have on a student’s ability to hear and recognize spoken conversation and environmental sounds. This is only a guide.

<table>
<thead>
<tr>
<th>Degree of Loss</th>
<th>Decibels</th>
<th>Potential Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal</td>
<td>16 - 25 dB</td>
<td>A minimal loss of some sounds. May have difficulty hearing quiet or distant conversations, especially in noisy environments.</td>
</tr>
<tr>
<td>Mild</td>
<td>26 - 40 dB</td>
<td>Without amplification the student can hear most conversations up close and in quiet environments, but is likely to miss parts of words. The student may appear to be “hearing when s/he wants to.” Amplification and lip-reading may supplement understanding of what is said. The student may require support services to develop language.</td>
</tr>
<tr>
<td>Moderate</td>
<td>41 - 55 dB</td>
<td>Without amplification, the student will have difficulty hearing spoken conversation. 50 – 100% of spoken conversation may be missed. Proper amplification and intervention should enable the student to hear and recognize all sounds. The student may require support services to develop language.</td>
</tr>
<tr>
<td>Moderately Severe</td>
<td>56-70 dB</td>
<td>Without amplification, only loud speech is audible. Early identification, early amplification, and intervention are necessary to develop speech and language. The student will require support services to develop language.</td>
</tr>
<tr>
<td>Severe</td>
<td>71 - 90 dB</td>
<td>Without amplification, the student may hear loud voices and sounds close to the ear. With early and consistent use of hearing devices, many students will be able to detect sounds such as speech. The student will require support services to develop language.</td>
</tr>
<tr>
<td>Profound</td>
<td>91 dB +</td>
<td>Without amplification, the student may perceive sounds as vibrations. The student will require support services to develop language.</td>
</tr>
<tr>
<td>Unilateral</td>
<td>One side</td>
<td>May have difficulty hearing faint or distant spoken conversations. Usually has difficulty knowing where sounds are coming from. May have difficulty understanding spoken conversations coming from the side of the head that has the hearing loss.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Possible Impact on the Understanding of Language and Speech</th>
<th>Possible Social Impact</th>
<th>Potential Educational Accommodations and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Impact of a hearing loss that is approximately 20 dB can be compared to ability to hear when index fingers are placed in ones ears.</td>
<td>• May be unaware of subtle conversational cues which could cause student to be viewed as inappropriate or awkward.</td>
<td>• Noise in typical classroom environments impede student from having full access to teacher instruction. Will benefit from improved acoustic treatment of classroom and sound-field amplification.</td>
</tr>
<tr>
<td>• Student may have difficulty hearing faint or distant speech. At 16 dB student can miss up to 10% of speech signal when teacher is at a distance greater than 3 feet.</td>
<td>• May miss portions of fast-paced peer interactions that could begin to have an impact on socialization and self-concept.</td>
<td>• Favorable seating necessary.</td>
</tr>
<tr>
<td>• A 20 dB or greater hearing loss in the better ear can result in absent, inconsistent or distorted parts of speech, especially word endings (s, ed) and unemphasized sounds.</td>
<td>• Behavior may be confused for immaturity or inattention.</td>
<td>• May often have difficulty with sound/letter associations and subtle auditory discrimination skills necessary for reading.</td>
</tr>
<tr>
<td>• Percent of speech signal missed will be greater whenever there is background noise in the classroom, especially in the elementary grades when instruction is primarily verbal and younger students have greater difficulty listening in noise.</td>
<td>• May be more fatigued due to extra effort needed for understanding speech.</td>
<td>• May need attention to vocabulary or speech, especially when there has been a long history of middle ear fluid.</td>
</tr>
<tr>
<td>• Young students have the tendency to watch and copy the movements of other students rather than attending to auditorily fragmented teacher directions.</td>
<td></td>
<td>• Depending on loss configuration, may benefit from low power hearing aid with personal FM system.</td>
</tr>
</tbody>
</table>

Audiogram of a Minimal Hearing Loss
## MILD (26-40 Db) HEARING LOSS

<table>
<thead>
<tr>
<th>Possible Impact on the Understanding of Language and Speech</th>
<th>Possible Social Impact</th>
<th>Potential Educational Accommodations and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Effect of a hearing loss of approximately 20 dB can be compared to ability to hear when index fingers are placed in one’s ears.</td>
<td>• Barriers begin to build with negative impact on self-esteem as student is accused of “hearing when he/she wants to,” “daydreaming,” or “not paying attention.”</td>
<td>• Noise in typical class will impede student from full access to teacher instruction.</td>
</tr>
<tr>
<td>• A 26 – 40 dB hearing loss causes greater listening difficulties than a &quot;plugged ear&quot; loss.</td>
<td>• May believe he/she is less capable due to difficulties understanding in class.</td>
<td>• Will benefit from hearing aid(s) and use of a desk top or ear level FM system in the classroom.</td>
</tr>
<tr>
<td>• Student can &quot;hear&quot; but misses fragments of speech leading to misunderstanding.</td>
<td>• Student begins to lose ability for selective listening, and has increasing difficulty suppressing background noise causing the learning environment to be more stressful.</td>
<td>• Needs favorable acoustics, seating, and lighting.</td>
</tr>
<tr>
<td>• Degree of difficulty experienced in school will depend upon noise level in the classroom, distance from the teacher, and configuration of the hearing loss, even with hearing aids.</td>
<td>• Student is more fatigued due to effort needed to listen.</td>
<td>• May need attention to auditory skills, speech, language development, speech reading and/or support in reading and self-esteem.</td>
</tr>
<tr>
<td>• At 30 dB can miss 25-40% of the speech signal.</td>
<td></td>
<td>• Amount of attention needed is typically related to the degree of success of intervention prior to 6 months of age to prevent language and early learning delays.</td>
</tr>
<tr>
<td>• At 40 dB may miss 50% of class discussions, especially when voices are faint or speaker is not in line of vision.</td>
<td></td>
<td>• Teacher in-service on impact of a 26 – 40 dB hearing loss on listening and learning to convey that it is often greater than expected.</td>
</tr>
<tr>
<td>• Will miss unemphasized words and consonants, especially when a high frequency hearing loss is present.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Audiogram of a Mild Hearing Loss
### MODERATE (41-55 dB) HEARING LOSS

<table>
<thead>
<tr>
<th>Possible Impact on the Understanding of Language and Speech</th>
<th>Possible Social Impact</th>
<th>Potential Educational Accommodations and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Consistent use of amplification and language intervention prior to age 6 months increases the probability that the student's speech, language and learning will develop at a normal rate.</td>
<td>• Barriers build with negative impact on self-esteem as student is accused of &quot;hearing when he/she wants to,&quot; &quot;daydreaming,&quot; or &quot;not paying attention.&quot;</td>
<td>• Consistent use of amplification (hearing aids + FM) is essential.</td>
</tr>
<tr>
<td>• Without amplification, student may understand conversation at a distance of 3-5 feet, if sentence structure and vocabulary are known.</td>
<td>• Communication will be significantly compromised with this degree of hearing loss, if hearing aids are not worn.</td>
<td>• Needs favorable classroom acoustics, seating, and lighting.</td>
</tr>
<tr>
<td>• The amount of speech signal missed can be 50% or more with 40 dB loss and 80% or more with 50 dB loss.</td>
<td>• Socialization with peers can be difficult, especially in noisy settings such as cooperative learning situations, lunch, or recess.</td>
<td>• Consultation/program supervision by a specialist in childhood hearing impairment to coordinate services is important.</td>
</tr>
<tr>
<td>• Without early amplification the student is likely to have delayed or disordered syntax, limited vocabulary, imperfect speech production, and flat voice quality.</td>
<td>• May be more fatigued than classmates due to effort needed to listen.</td>
<td>• Depending on early intervention success in preventing language delays, special academic support will be necessary if language and educational delays are present.</td>
</tr>
<tr>
<td>• Addition of a visual communication system to supplement audition may be indicated, especially if language delays and/or additional disabilities are present.</td>
<td></td>
<td>• Attention to growth of oral communication, reading, written language skills, auditory skill development, speech therapy, self-esteem likely.</td>
</tr>
<tr>
<td>• Even with hearing aids, student can &quot;hear&quot; but may miss much of what is said if classroom is noisy or reverberant.</td>
<td></td>
<td>• Teacher in-service required with regarding communication access and peer acceptance.</td>
</tr>
<tr>
<td>• With personal hearing aids alone, ability to perceive speech and learn effectively in the classroom is at high risk.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A personal FM system to overcome classroom noise and distance is typically necessary.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Audiogram of a Moderate Hearing Loss
### MODERATE TO SEVERE (56-70 dB) HEARING LOSS

<table>
<thead>
<tr>
<th>Possible Impact on the Understanding of Language and Speech</th>
<th>Possible Social Impact</th>
<th>Potential Educational Accommodations and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• With use of amplification, can usually “hear” people talking around him/her, but will miss fragments of what is said resulting in difficulty in situations requiring verbal communications in both one-to-one and groups.</td>
<td>• Communication will be significantly affected, and socialization with peers can be difficult.</td>
<td>• Consistent use of amplification (hearing aids, FM) is essential.</td>
</tr>
<tr>
<td>• Without amplification, conversation must be very loud to be understood; a 55 dB loss can result in missing up to 100 % of speech information without working amplification.</td>
<td>• Greater difficulty socializing, especially in noisy settings such as lunch, cooperative learning situations, or recess.</td>
<td>• May benefit from frequency transposition hearing aids depending on loss configuration.</td>
</tr>
<tr>
<td>• If hearing loss is not early identified and appropriately addressed, delayed spoken language, syntax, reduced speech intelligibility and flat voice likely.</td>
<td>• Tendency for poorer self-concept and social immaturity may contribute to a sense of rejection; peer in-service helpful.</td>
<td>• May require intense support in language skills, speech, auditory skill development, reading and writing.</td>
</tr>
<tr>
<td>• Age when amplified, consistency of hearing aid use and success of early language intervention strongly tied to speech, language, and learning development.</td>
<td></td>
<td>• Consultation/supervision by a specialist in hearing impairment important.</td>
</tr>
<tr>
<td>• Use of visual communication system often indicated if language delays and/or additional disabilities are present.</td>
<td></td>
<td>• Use of sign language or a visual communication system by children with substantial language delays or additional learning needs, may be useful to access linguistically complex instruction.</td>
</tr>
<tr>
<td>• Use of a personal FM system will reduce the effects of noise and distance to allow increased auditory access to verbal instruction. With hearing aids alone, ability to understand in the classroom is greatly impacted by distance and noise.</td>
<td></td>
<td>• Note-taking, captioned films, etc. are needed accommodations.</td>
</tr>
</tbody>
</table>

Audiogram of a Moderately-severe Hearing Loss
### SEVERE (71-90 dB) & PROFOUND HEARING LOSS (91+ dB)

<table>
<thead>
<tr>
<th>Possible Impact on the Understanding of Language and Speech</th>
<th>Possible Social Impact</th>
<th>Potential Educational Accommodations and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The younger the child wears amplification consistently and concentrated effort is made by parents and caregivers to provide rich language opportunities, the greater probability that speech, language and learning will develop at a relatively normal rate.</td>
<td>• Communication may be minimally or significantly affected.</td>
<td>• Whether a visual or auditory/oral communication approach is used, early and extensive language intervention, full-time consistent amplification use, and constant integration of the communication practices into the family will highly increase the probability that the student will become a successful learner.</td>
</tr>
<tr>
<td>• Without amplification, <em>may only hear loud noises about one foot</em> distant from ear.</td>
<td>• Socialization with hearing peers may be difficult.</td>
<td>• Children with late-identified hearing loss will have delayed language. This language gap is difficult to overcome and the educational program of a child with hearing loss, especially those with language and learning delays secondary to hearing loss, requires the involvement of a consultant or teacher with expertise in teaching children with hearing loss.</td>
</tr>
<tr>
<td>• When amplified optimally, should detect many sounds of speech if presented from close distance or via FM.</td>
<td>• Children in mainstream classroom may develop greater dependence on adults due to difficulty perceiving or comprehending oral communication.</td>
<td>• Children with late-identified hearing loss will have delayed language. This language gap is difficult to overcome and the educational program of a child with hearing loss, especially those with language and learning delays secondary to hearing loss, requires the involvement of a consultant or teacher with expertise in teaching children with hearing loss.</td>
</tr>
<tr>
<td>• Individual ability and early intensive intervention will determine the degree that sounds detected will be discriminated and processed by the brain into meaningful input.</td>
<td>• Child may be more comfortable interacting with deaf or hard of hearing peers due to ease of communication.</td>
<td>• Depending on hearing loss, frequency transposition aids or cochlear implantation may be options for better access to speech.</td>
</tr>
<tr>
<td>• Even with hearing aids children with severe loss are typically unable to perceive all high pitch speech sounds sufficiently to discriminate them, especially without the use of an FM.</td>
<td>• Relationships with peers and adults who have hearing loss can make positive contributions toward the development of a healthy self-concept and a sense of cultural identity.</td>
<td>• Full access to language to be available visually through sign language or cued speech, family members must be involved</td>
</tr>
<tr>
<td>• May be a candidate for cochlear implant(s). The child with a profound loss will not be able to perceive most speech sounds without cochlear implant(s). Full access to language to be available visually through sign language or cued speech.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Full access to language to be available visually through sign language or cued speech, family members must be involved</td>
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</tbody>
</table>
in child’s communication mode from a very young age.

| • If an auditory/oral approach is used, early training is needed on auditory skills, speech reading, concept development, and speech. |
| • If culturally deaf emphasis is used, frequent exposure to Deaf, ASL users is important. |
| • Self-contained educational placement with other signing deaf or hard of hearing students (special school or classes) may be a least restrictive option due to access to free-flowing communication. |
| • Support services and the continual appraisal of access to communication and verbal instruction are required. |
| • Note-taking, captioned films necessary; training in communication repair strategies helpful. |
| • In-service of mainstream teachers is essential. |
Audiogram of a Severe Hearing Loss
Audiogram of a Profound Hearing Loss

FREQUENCY IN HERTZ

HEARING LEVEL IN DECIBELS (dB)

Profound
### UNILATERAL HEARING LOSS

**Possible Impact on the Understanding of Language and Speech**

- Student can "hear" but can have difficulty understanding in certain situations, such as hearing faint or distant speech, especially if poor ear is aimed toward the person speaking.
- Will typically have difficulty localizing sounds and voices using hearing alone.
- The unilateral listener will have greater difficulty understanding speech when environment is noisy and/or reverberant, especially when normal ear is towards the overhead projector or other competing sound source and poor hearing ear is towards the teacher.
- Exhibits difficulty detecting or understanding soft speech from the side of the poor hearing ear, especially in a group discussion.

**Possible Social Impact**

- Student may be accused of selective hearing due to discrepancies in speech understanding in quiet versus noise.
- Social problems may arise as student experiences difficulty understanding in noisy cooperative learning, or recess situations.
- May misconstrue peer conversations and feel rejected or ridiculed.
- Student may be more fatigued in classroom due to greater effort needed to listen, if class is noisy or has poor acoustics.
- May appear inattentive, distractible or frustrated, with behavior or social problems sometimes evident.

**Potential Educational Accommodations and Services**

- Allow student to change seat locations to direct the normal hearing ear toward the primary speaker.
- Student is at 10 times the risk for educational difficulties as students with 2 normal hearing ears. 1/3 to 1/2 of students with unilateral hearing loss experience significant learning problems.
- Students often have difficulty learning sound/letter associations in typically noisy kindergarten and grade 1 settings.
- Educational and audiological monitoring is warranted.
- Teacher in-service is beneficial.
- Typically will benefit from a personal FM system with low gain/power or a sound-field FM system in the classroom, especially in the lower grades.
- Depending on the hearing loss, may benefit from a hearing aid in the impaired ear.

## FLUCTUATING HEARING LOSS

<table>
<thead>
<tr>
<th>Possible Impact on the Understanding of Language and Speech</th>
<th>Possible Social Impact</th>
<th>Potential Educational Accommodations and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Of greatest concern are students who have experienced hearing fluctuations over many months in early childhood (multiple episodes with fluid lasting three months or longer).</td>
<td>• Barriers begin to build with negative impact on self-esteem as the student is accused of &quot;hearing when he/she wants to,&quot; &quot;daydreaming,&quot; or &quot;not paying attention.&quot;</td>
<td>• Impact is primarily on acquisition of early reading skills and attention in class.</td>
</tr>
<tr>
<td>• Listening with a hearing loss that is approximately 20 dB can be compared to hearing when index fingers are placed in one’s ears.</td>
<td>• Student may believe he/she is less capable due to understanding difficulties in class.</td>
<td>• Screening for language delays is suggested from a young age.</td>
</tr>
<tr>
<td>• This loss or worse is typical of listening with fluid or infection behind the eardrums.</td>
<td>• Typically poor at identifying changes in own hearing ability. With inconsistent hearing, the student learns to &quot;tune out&quot; the speech signal.</td>
<td>• Ongoing monitoring for hearing loss in school, communication between parent and teacher about listening difficulties and aggressive medical management is needed.</td>
</tr>
<tr>
<td>• Student can &quot;hear&quot; but misses fragments of what is said. Degree of difficulty experienced in school will depend upon the classroom noise level, the distance from the teacher and the current degree of hearing loss.</td>
<td>• Students are judged to have greater attention problems, insecurity, and distractibility and lack self-esteem.</td>
<td>• Will benefit from sound-field FM or an assistive listening device in class.</td>
</tr>
<tr>
<td>• At 30 dB, a student can miss 25-40% of the speech signal.</td>
<td>• Tend to be non-participative and distract themselves from classroom tasks; often socially immature.</td>
<td>• May need attention to development of speech, reading, self-esteem, or listening skills.</td>
</tr>
<tr>
<td>• A student with a 40 dB loss associated with &quot;glue ear&quot; may miss 50% of class discussions, especially when voices are faint or speaker is not in line of vision.</td>
<td></td>
<td>• Teacher in-service is beneficial.</td>
</tr>
<tr>
<td>• Students with this degree of hearing loss will frequently miss unstressed words, consonants, and word endings.</td>
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</tr>
</tbody>
</table>

Types of Hearing Tests

Working with an experienced pediatric audiologist is critical in getting valid test results of a young student’s hearing. Assessment of hearing function in students can be easily accomplished with the broad range of testing types and techniques available to pediatric audiologists.

Hearing testing is done to find out how well a student can hear. Usually an audiologist will administer the testing. If a student does have a hearing loss, the audiologist and/or otolaryngologist may administer other tests to find out more specific information about:

- The **type of hearing loss**: Conductive, Sensorineural or Mixed
- The **severity of the hearing loss**: Mild, Moderately-Severe, Severe or Profound
- The **reason for the hearing loss**:

The audiologist or otolaryngologist may discuss with the family the option of referral for genetic testing. The otolaryngologist may complete additional lab or imaging tests.

Pediatric audiologists employ multiple tests (described below) to assess hearing sensitivity. Some procedures are better suited for a particular student, based on age, ability to participate in the testing, medical condition of the student, etc. A typical method of pediatric hearing assessment employs the “cross-check principle”. That is, the results of a single test are cross-checked by an independent test measure. The audiologist chooses and performs different tests to get the most accurate determination of a student’s hearing. The ‘cross-check principle’ is particularly useful in pediatric evaluations as cross-checks of behavioral test results and auditory evoked potentials as was proposed over 20 years ago by Jerger and Hayes, two well-respected audiology researchers who both hold PhDs in the field.

**Otoacoustic Emissions (OAE) Testing - Also known as**: OAE, DPOAE, TEOAE

A small probe is placed in the student’s ear canal. A sound, generated by the testing equipment is sent to the cochlea (located in the inner ear). If the hair cells in the cochlea are normal, an otoacoustic emission is generated and measured by the equipment. This test is not used if there is significant middle ear dysfunction (e.g. fluid or infection). If an emission is present, it suggests normal cochlear function and at worst, a mild hearing loss. If an emission is not present, then further testing is indicated.

This test is used for infants, for students who cannot respond to other types of hearing tests, and for students with severe disabilities. OAEs can be used regardless of a client's age at testing; as another way to cross-check test results; to help diagnose auditory neuropathy and to monitor hearing when an individual has had noise exposure.

**Auditory Evoked Potentials (AEPs)-Also known as**: Brainstem Audiometry Evoked Response, BSER, BAER, ABR, ASSR
These tests evaluate hearing status from the level of the outer ear through the lower brainstem. This test can be done if the student is quiet, sedated or asleep. Electrodes are attached to the student’s head and sound is transmitted either through supra-aural headphones, in the ear insert phones or a bone oscillator. Sounds are presented and the electrodes measure how the student’s brain responds. This test gathers specific information about the student’s hearing at different pitches and loudness levels.

This test gives an approximation of the student’s hearing sensitivity and is used for infants, for students who cannot respond to other types of hearing tests, and for students with additional severe disabilities.

**Behavioral Observation Audiometry (BOA)**

An audiologist observes the student’s reaction to different sounds (e.g., speech or music) and loudness levels. Reactions may include a sucking reflex or behavioral change such as smiling, eye widening or pausing. The test relies heavily on parent and provider interpretation. Therefore, the test may only give an approximation of the degree of hearing loss.

This test can be used with some infants, for children who cannot respond to other types of hearing tests and for children with additional severe disabilities.

**Visual Reinforced Audiometry (VRA)**

The child will either sit in a chair or on the lap of an adult in the sound booth. When the sound is introduced and the child turns his/her head in response, a visual reinforcement is used (e.g., a toy will light up). The child will learn to turn his/her head towards the toy in response to the sound and this can be more of a reflex or intentional. Children naturally turn to the sound source and VRA uses that tendency. Earphones or insert phones may or may not be used for this test and is often done through sound field speakers. This test will give information about how a student hears different pitches at different loudness levels. Earphones or insert phones are used to collect individual ear information. If sounds are presented through the sound field speakers, the information will reflect the better ear.

This test is used for infants, young children and children who will not tolerate headphones or insert phones.

**Play Audiometry**

This test is used with young children who will perform a task in response to when they hear a sound. The child may be rewarded for a correct response as motivation to continue. Examples of some of these tasks include stringing beads, building block towers, putting pegs into a peg board, putting pennies in a bank or doing a puzzle. Earphones, insert phones or a bone oscillator, are usually used with this test but this can also be done through sound field speakers.
This test can provide information about how a child hears different pitches at different loudness levels. Earphones or insert phones are used to collect individual ear information. If sound field speakers are used, the information will reflect the better ear.

**Conventional Pure Tone Audiometry**

Tones of different pitch and loudness levels are introduced to a student. The student will indicate if they have heard the tone, usually by raising their hand. The tones are presented through earphones, insert phones or through a bone conduction oscillatory that works by sending signals through vibrations in the skull to the inner ear.

This test will give information about how a student hears different pitches at different loudness levels. Earphones or insert phones are used to collect individual ear information. If sound field speakers are used, the information will reflect the better ear.

This test is used with students (approximately 4-5 years of age) through adults.

**Acoustic Immittance** - Also known as Impedance testing, or tympanometry and may include acoustic reflexes. A probe is placed in the student’s ear and a signal is presented. The signal can be a measured response to sound or change in pressure depending on what information the audiologist is trying to gather. The signal bounces off the eardrum and back to the probe and takes between 3-30 seconds per ear.

Tympanometry will chart the way the eardrum is moving which shows how the middle ear is functioning. It can help determine if there is a hole in the ear drum as well as help determine if there is fluid. This is part of one test that audiologists use to assess eardrum movement, but is not always clear-cut.

This test may be used with any student.

Information in this section taken from:

**Real Ear Measurements (REM)**

Audiology best practice guidelines state that probe microphone verification measures should be done to ensure that hearing aid gain and output characteristics meet prescribed targets for the individual (American Academy of Audiology Pediatric Amplification Protocol, 2003).

The pediatric audiologist will place a small microphone via a probe in the ear canal with the same tip that is used to measure your student’s hearing (a foam tip or an earmold). This generates an RECD (which stands for Real Ear to Coupler Difference), which measures the ear canal to ensure that the hearing aids do not over-amplify sounds. Every time a student gets new earmolds, the RECD is measured to ensure that the hearing aids are always appropriately amplifying sounds.
Audiograms
An audiogram is a graph of the softest levels at which a student responds to sound. It is a picture of the results of a test that is administered by an audiologist. A student’s audiogram will often be used to describe his/her hearing loss. (Refer to audiograms in this document.)

The audiogram shows two things: Intensity and Frequency. Intensity (loudness) is measured in decibels (dB). Loudness levels are located along the lines on the audiogram that are drawn up and down. Intensities usually go from -10 dB to 120 dB; with -10 dB being very quiet and 120 dB being very loud. Frequency, which is another word for pitch, is measured in Hertz (Hz). The different pitches are found along the lines drawn left to right on the audiogram. Pitches range from 125 Hz to 8000 Hz. 125 Hz is a very low-pitched sound and 8000 Hz is a very high-pitched sound.

As the audiologist tests a student’s hearing, he/she will make marks using different symbols on the audiogram that represent the softest levels at which a student consistently responds. This level of sound is called the threshold. Looking at the point where the pitch and loudness lines cross reveals what loudness levels the student can detect at various pitches.

If the student is tested with earphones or insert phones, it is called Air Conduction Testing. Because sound is presented to each individual ear, information can be gathered about hearing in each ear, separately. The symbols used to represent Air Conduction testing are an X for the left ear and an O for the right ear. Sometimes colors are used for all of the different symbols: red for right and blue for left. If the student does not hear the sound at the loudest level of the audiometer (the machine used to test hearing), it may be indicated several different ways, with a NR (no response), a squiggly downward line or an arrow downward from the X or O.

If a student is tested using a bone conduction oscillator, it is placed behind the ear rather than in it, different symbols will be used. The symbol > is used to show the left ear results and < for right ear.

After the audiologist has information about various pitches, she/he will connect the symbols to make a line on the graph for each ear. This line is the configuration of the audiogram. Configurations vary due to each student’s individual hearing loss. Sometimes configurations go somewhat straight across. These are called flat hearing losses. Some configurations will angle downward, either gently or sharply. These are called sloping losses. Professionals may use configurations to describe a student’s hearing loss.

Due to the relationship of hearing and speech, an audiologist may try to get some additional information. S/he may try to find out the softest level at which a student can perceive speech. This is called a speech detection threshold.

The audiologist may also try to find out the softest level at which a student understands speech. This is the speech reception threshold and is typically used in students older than 30 months. The audiologist may read a list of two syllable spondee words (such as baseball, hot dog, ice
cream) to the student and have the student repeat the words or point to a picture. This is usually recorded in decibels.

An audiologist may also test for word recognition and speech discrimination in simulated listening environments. It can also be done using their hearing aids or cochlear implants or hearing assistive technology (e.g., FM system) while listening to speech in a quiet or slightly noisy setting. A variety of stimuli are used with this type of test and it is usually recorded in percentages (how many words are repeated correctly).

Many of the speech sounds are made in the pitches between 250 and 4000 Hz and are spoken at a loudness of 20 to 60 dB. Sometimes an audiogram will have shading on it that resembles the shape of a banana and falls in between pitch and loudness levels (this is called the “speech banana”). This is put on the audiogram to show where speech sounds typically occur. If the audiologist fits a hearing aid on a student, she/he will try to make sure that the student can hear sounds in this area.

The audiologist may also use the audiogram to chart what sounds a student can hear with hearing aids or with his/her implants on. The softest sounds a student can hear while amplified is called the aided threshold. Many times the letter A (hearing aids) or C (cochlear implants) will be the symbol used to represent aided thresholds. Ideally, these A’s or C’s will be within the banana lines.

Although a student’s audiogram will be referred to often through the years and may even be used to describe a student’s hearing loss, it is not a predictive measure. An audiogram can be compared to a growth chart. A growth chart will give some indication as to how big the student may become as an adult, but it is not a precise indicator of who that student will become. An audiogram can give an idea of what that student’s usable (residual) hearing is, but is not a precise indicator of how the student will use their hearing to learn speech or how the student will process sound.

Example of a high frequency hearing loss

**FREQUENCY IN HERTZ**

HEARING LEVEL IN DECIBELS (dB)
EDUCATIONAL PROGRAMMING AND RELATED SERVICES

INDIVIDUALIZED EDUCATION PROGRAM (IEP) CONSIDERATIONS
Evaluation data of tests which are administered by staff that are trained to assess students who are deaf or hard of hearing are reviewed at the IEP meeting. Goals and objectives in all deficit areas are written by staff having knowledge and training in teaching/providing related services for the Deaf/Hard of Hearing. Parents are a critical part of the IEP team.

IDEA/504 Comparison
When working with students who are deaf or hard of hearing, districts should evaluate student needs carefully. Often times, it is difficult to determine how these students are impacted. Some example areas to consider are: academics, vocabulary, social emotional, incidental learning, communication, language development, processing, concept development, and self-advocacy.

<table>
<thead>
<tr>
<th>IDEA</th>
<th>504</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>Purpose</td>
</tr>
<tr>
<td>Is a federal statute whose purpose is to ensure free and appropriate</td>
<td>Is a broad civil rights law which protects the rights of individuals</td>
</tr>
<tr>
<td>education services for children with disabilities who fall</td>
<td>with disabilities in any agency, school or institution receiving</td>
</tr>
<tr>
<td>within one of the specific disability categories as defined by the</td>
<td>federal funds to provide persons with disabilities to the greatest</td>
</tr>
<tr>
<td>law.</td>
<td>extent possible, an opportunity to fully participate with their</td>
</tr>
<tr>
<td></td>
<td>peers.</td>
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</tbody>
</table>

A more detailed comparison can be found on the National Center for Learning Disabilities website: [http://goo.gl/qPX0YQ](http://goo.gl/qPX0YQ)

Strengths
The IEP for students who are deaf or hard of hearing must include the strengths of the student and the concerns of the parents for enhancing the education of their student.

Modes of Communication
The use of ASL has been documented to promote linguistic, communication, cognitive, academic, and literacy development as well as social-emotional growth and identity formation in Baker, 2011; Cummins, 2006; Grosjean, 2008; Morford & Mayberry, 2000; Yoshinaga-Itano, 2006 (as cited in Nussbaum, Scott and Simms 2012).

Since deafness is a disability which profoundly affects the natural acquisition of spoken language, language experiences, whether in American Sign Language, English, total
communication, cued speech or oral communication, should be directly provided throughout the school day in a natural manner based on the needs established in the IEP. (For information, or a copy of the ISBE IEP form, go to: http://www.isbe.state.il.us/spec-ed/html/forms.htm.) Attention must be given to receptive and expressive language development including vocabulary, syntax, and pragmatics. A consistent, comprehensive language-based program must be established for a student who is deaf or hard of hearing beginning in early infancy and continuing throughout the student’s educational experience.

State and Local Assessments
State and locally mandated standardized assessments are designed for students who can hear who speak English. Due to the language deficits that are common to students with a hearing loss, such instruments must be used with great caution since they may be discriminatory for students with a disability. Standardized tests may not permit students who are deaf or hard of hearing to demonstrate their true capabilities and educational progress. The IEP team determines whether the student will take the PARCC (www.isbe.net/assessment/parcc.htm) or DLM (www.isbe.net/assessment/dlm.htm) and what, if any accommodations are needed. An IEP/504 Checklist: Accommodations and Modifications for Students Who are Deaf and Hard of Hearing can be found at http://www.handsandvoices.org/pdf/IEP_Checklist.pdf.

Students who are deaf or hard of hearing are most appropriately assessed by local and alternative assessments based on the students’ IEPs. These assessments measure what the students have learned. Test items match the knowledge and skills that the students acquire in the classroom. The use of portfolio and performance-based assessments has been quite successful in tracking the performance of students with a hearing loss.

The Pearson Assessments Company publishes the Stanford Achievement Test-10 (SAT). This is an assessment that is specifically designed to address the language deficits of students who have a hearing loss. It is a good measure of student academic achievement. For over 80 years, the SAT-10 series has been a valid and reliable assessment for objective measurement of achievement and evaluation of progress toward high academic standards.

CURRICULA AND STANDARDS
All curricula and standards as measured by benchmark grades for regular education should also be the standard for students who are deaf and hard of hearing as appropriate. Instructional programs should follow curricula requirements for general education students in the state of Illinois and the LEA, where appropriate, with special accommodations per the student’s IEP. The curricula should be developmental, sequential goal-directed, and subject to continual evaluation and revision. Areas which require special curricula for deaf and hard of hearing programming may include, but need not be limited to language acquisition, reading, and communication skills. Some students may benefit from specialized instruction in deaf culture, coping strategies, social skills, and independent living skills. All curricula and standards should hold high expectations and be appropriate for these students. Illinois currently uses the Common Core Standards for English/Language Arts and for Mathematics. They use the Next...

LANGUAGE
Language is a complex system of communication relating symbols, rules, and experiences resulting in an indefinite number of possibilities. Most students who are deaf or hard of hearing enter school with a significant language and vocabulary deficiency. Regardless of the student's language modality (spoken or signed), early intervention in the area of language development is essential. If a student is deaf or hard of hearing, the IEP team is required to consider language and communication needs, including the need to communicate with school personnel and peers, and the need for direct instruction in the preferred language and communication mode.

Since language development is essential during early childhood, it is critical that children and parents receive intervention as soon as the hearing loss is diagnosed. A natural language, in an accessible mode, develops normally through age six, is compromised until puberty, and is rare thereafter. (Taken from Comprehensive Service Guidelines for Illinois Students who are Deaf or Hard of Hearing Birth to Twenty-one, Illinois State Board of Education, November 2000)

Language intervention and amplification (if possible) are essential services that ideally begin as soon as possible after identification of the hearing loss.

Many students who are deaf or hard of hearing have intelligible speech, but may experience great difficulty understanding others who speak to them. Although a student may speak well, it doesn’t mean they hear or comprehend well. A student may be able to understand very well in one to one situations, but may experience difficulty understanding/learning in the classroom setting due to background noises, etc. The student may have patterns of errors and experience difficulties with vocabulary, grammar, phonology, syntax, pragmatics and semantics. Because a student who is deaf or hard of hearing does not acquire language naturally, an appropriately licensed teacher of the deaf must provide instruction in the English language. This teacher’s specialized skills are essential in the education of students who are deaf or hard of hearing.

When children who are deaf or hard of hearing enter school with limited language and vocabulary, this puts them at risk of struggling to learn to read (sic. Williams, C. 2012).

Whether the student has a cochlear implant, uses sign language, is oral, or comes to school with abundant prior experiences or has been sheltered with minimal world exposure, the education team should look for strategies that are research based and are proven effective in providing positive educational outcomes.

READING
There are five essential components of effective reading instruction: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. (Trezek, Wang, Paul 2010).
Best practices for teaching reading to students who are deaf and hard of hearing include the information from the National Reading Panel regarding the five essential components of reading instruction as well as materials and strategies that have been scientifically researched as ones that will provide results. Best practices must include teachers who are knowledgeable both in the sequence of reading acquisition and the use of materials and strategies for students who are deaf or hard of hearing. An effective teacher will understand the use and analysis of appropriate assessments to build a systematic and explicit reading program.

The five essential components are outlined below.

**Phonemic Awareness** is the ability to notice, think about and work with the individual sounds in spoken words.

**Phonics** instruction teaches children the relationships between the letters (graphemes) of written language and individual sounds of spoken language. According to Trezek, Wang, Paul 2010, although still controversial, substantial research has suggested that deaf readers, particularly skilled readers have access to phonological information. (Phonology refers to the sound structure of speech in spoken languages. It is related to the perception, representation, and production of speech sounds.) Alternative means of acquiring phonology for students who are deaf or hard of hearing include speech reading, articulatory feedback, Cued Speech, and Visual Phonics.

**Fluency**, according to the National Reading Panel, is the ability to read text accurately and quickly with proper expression. Fluency is an important reading skill because it provides the critical reading bridge between reading and comprehension (Trezek, Wang, Paul, 2010 pg.36.)

**Vocabulary** refers to the words we must know to comprehend and communicate effectively. There are four different types of vocabulary: listening, speaking, reading and writing vocabulary. Vocabulary is very important to reading comprehension, therefore if a reader does not know word meaning he/she cannot comprehend the meaning of the text. (Armbruster, Lehr and Osborn, 2001 pg.29) Some words are learned indirectly as students go through their day. Other words are learned directly through instruction and word-learning strategies.

**Comprehension** is the reason for reading. Good readers are both purposeful and active. Students who are good at monitoring their comprehension are aware of what they do and do not understand.

Good readers use metacognition-the thinking about thinking-to comprehend and have control over their reading. (Armbruster, Lehr and Osborn 2001 pg.41-42)

**RELATED SERVICES**

**Assistive Technology**
Assistive technology is available for students who are deaf or hard of hearing.
Audiology
Students with any degree or type of hearing impairment, including auditory neuropathy, unilateral or fluctuating hearing loss, or an auditory processing disorder, require the expertise of an educational audiologist. In addition, students with learning disabilities, reading/literacy difficulties, attention problems, and those struggling with English as a second language benefit from the educational audiologist’s knowledge of how listening and learning is impacted by noise and classroom acoustics. They may support these students whether they receive special education and related services under the Individuals with Disabilities Education Act (IDEA, 2004) or services under Section 504 of the Rehabilitation Act (1973). Educational audiologists interact directly with parents, as well as teachers, nurses, and other related service personnel, as part of the educational team.

Speech and Language
The sense of hearing is developed while a child is in the womb. A new born baby recognizes the mother’s voice and has a beginning understanding of his/her native language. Hence, a child with a hearing loss begins life with a language deficit. Most of what a child learns is through the auditory mode, thus, when a child who is deaf/hard of hearing turns 3 years of age, there are usually deficits in one or more of the following areas:
* incidental learning
* receptive language
* expressive language
* vocabulary development
* articulation
* concept development
* pragmatics
* listening skills/auditory discrimination
* oral motor

Because of these deficits, a student with a hearing loss requires speech/language related service on the IEP. It is imperative that the SLP has knowledge of developing these skills for students with a hearing loss and is also able to communicate in the student’s mode of communication. The SLP assesses the student and is a member of the IEP team to determine the amount of services needed. The SLP writes goals to address the areas of deficits identified during the assessment.
Educational Interpreter
Students who are deaf or hard of hearing may require the use of an educational interpreter who must comply with Illinois Administrative Code 23, Subtitle A, Section 25.550: [http://www.isbe.net/rules/archive/pdfs/25ark.pdf](http://www.isbe.net/rules/archive/pdfs/25ark.pdf), and be approved by the Illinois State Board of Education (ISBE) (see Appendix J for a list of interpreter training programs in Illinois).

In classes where students who are deaf or hard of hearing are mainstreamed, they may require the services of interpreters for consumers who are oral/aural, use sign language, cued speech, or are deaf-blind to understand the instructional material presented by the teacher and the class discussions involving other students.

The educational interpreter must interpret all communication which occurs to enable students who are deaf or hard of hearing to fully and freely participate in academic and extra-curricular school activities. Students who are deaf or hard of hearing should be provided instruction on how to effectively use an interpreter's services.

(Refer to the section on deaf-blindness for information on interpreting for students who are dual sensory impaired.)

ADDITIONAL CONCERNS
Secondary Disabling Conditions

Data collected from the IEPS of Illinois students with deafness/hearing impairment was collected for the 2011 – 2012 school year, and information from 1565 Illinois students regarding additional needs was reported. Of those students, 793 had no additional conditions, and 772 students were indicated having conditions such as low vision/legal blindness/deaf-blindness, developmental delay, learning disability, orthopedic impairment, ADD/ADHD, traumatic brain injury, intellectual disability, emotional disturbance, autism, speech/language impairment, other health impairments, and other conditions. [http://research.gallaudet.edu/Demographics/States/2012/IL.pdf](http://research.gallaudet.edu/Demographics/States/2012/IL.pdf)

The combined effect of hearing loss and an additional disability presents a unique and complex challenge to professionals and parents. A review of the literature yields little specific information on successful educational strategies and programs. It seems that the most important factor in student success is early identification and early placement in an appropriate program.

The needs of students with disabilities vary greatly. They have different accompanying disabilities, function at different levels, and have different ways of learning. Some factors affecting each child's needs include:
- The configuration of the hearing loss
- The type and severity of the additional disability
- The age of onset of each disability
- The age when the student starts receiving appropriate educational interventions
Characteristics of successful programs include:

- A high level of structure
- Specific, clearly stated objectives
- A focus on the individual needs of each child
- Instruction that is step-by-step in nature.
- Practical experiences in natural environments
- Consistent routines
- Age-appropriate materials
- A focus on motivating the student
- Provision of successful experiences
- An emphasis on the student's skills in given situations, not on his or her limitations
- Over-learning (going over a skill after it seems to be mastered)
- Planning for the transfer of instruction to real life situations

Successful transition strategies for students who are deaf or hard of hearing and have additional disabilities are future-oriented; the goal is to prepare students to function as independently as possible once they leave school.

https://www.gallaudet.edu/clerc_center/information_and_resources/info_to_go/educate_children_(3_to_21)/studsents_with_disabilities.html

**Deaf-Blind**

Our nation’s special education law, the IDEA, defines “deaf-blindness” as a:

...concomitant [simultaneous] hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness. [§300.8(c)(2)] 1999.

The term deaf-blind covers a wide range of hearing and vision loss - from complete deafness and blindness to vision loss of 20/70 in the better eye (corrected) or decreased visual field (20 degrees or less) and a mild hearing loss of 30 dB in the better ear (aided). Since the combination of vision and hearing loss compounds the disability, the term deaf-blind is used, and students must receive services based on both vision and hearing needs. While IDEA specifically uses the hyphenated word “deaf-blind”, other words are also used. In educational systems, the word “deaf-blind” or “deaf-blindness” is used.

Like students who are deaf and hard-of-hearing, students with deaf-blindness often have additional disabilities including intellectual disabilities, physical disabilities, and other health impairments. Project Reach, the agency that completes the required national count of students with deaf-blindness, notes that annually there are at least 400 – 420 Illinois students age birth – 21, and of these students at least 70% have additional disabilities.

https://nationaldb.org/library/page/2199
A variety of causes of deaf-blindness have impacted Illinois students. The majority have no known cause, or a variety of unusual genetic causes. The most common single cause of deaf-blindness in Illinois are CHARGE syndrome, Usher Syndrome, and complications of prematurity.

A student who is deaf-blind may use many of the oral/aural or visual/sign modes described for persons who are deaf depending on their vision loss, onset and progression of sensory losses, and any additional intellectual/educational challenges. If the vision and hearing loss are severe, the addition of tactile modes may be necessary.

With any of the sign systems, the student may use either tracking or tactile sign language. If the student has tunnel vision or needs the speaker near, tracking will be used. With tracking, the student holds onto the signer’s wrists in order to feel where the signer’s hands are, and in that way, the student can see what is signed. The student can also help move the signer’s hands into the best area within the student’s visual field. With tactile sign, the student’s hands are placed over the speaker’s hands in order to feel the signs. If this technique is used, all information which is normally visual (facial expressions and body language) will need to be expressed on the hands. If fingerspelling is used, the student’s hand is placed over the speller’s hand in order to read the fingerspelling. Articles on deaf-blind interpreting and modifications to sign language for tactile sign can be found at:

https://nationaldb.org/library/list/20
http://www.deafblind.com/slmorgan.html
http://www.projectsalute.net/Learned/Learnedhtml/TactileSigning.html
http://www.pro-tactile.org

Deaf Blind Interpreting
Pro-Tactile is a movement within the DeafBlind community that incorporates language, awareness and empowerment. The three tenets are Philosophy, Method and Attitude. Of particular notice to most adopters of Pro-Tactile is Method. Method incorporates tactual techniques to provide information, such as backchanneling, Tactile ASL (TASL), and mapping. These methods, thus provide the DeafBlind receiver with information that enables them to make informed awareness and decision-making choices.

For example, backchanneling may provide information about activities occurring in a room, such as group laughter and other visual cues that a sighted person may incorporate in how they react interpersonally and in group settings. Mapping is a method where the layout of a room is drawn on the DeafBlind person's body (arm, back, etc.). And TASL establishes a mode of communication where VASL (Visual ASL) may not be adequate when used with tactile signing.

All of these methods, in turn, provide the awareness and information that supports the Philosophy and Attitude tenets. When a DeafBlind person is empowered with information, the DeafBlind person is then able to make independent decisions and take charge in ways that affect them both immediately and long-term.

More information about TASL can be found in Terra Edward's dissertation arguing that TASL is, indeed its own language. Videos that explain much of the method can be found at www.ProTactile.org.
If the student has lost vision and hearing after being able to read, Print on Palm may be used for communication. Using the student’s hand as a base, the speaker draws in capital block letters on the student’s palm with an index finger. The use of a raised alphabet card or an alphabet glove may aid in communication if the student knows no sign language. Information on these systems is available at: http://www.hknc.org/Guidelines.htm.

Braille may become an important tool in communication if the student lost vision first, and later acquired hearing loss. The knowledge of braille would be important in order to use various low-tech and high-tech communication devices. Examples include Braille/Print Alphabet Cards and the Deafblind Communicator. An overview of deaf-blind communication options can be found at: http://aadb.org/factsheets/db_communications.html.

For information on any aspect of deaf-blindness contact the Philip J. Rock Center and School, 818 DuPage Blvd., Glen Ellyn, IL 60137; 630-790-2474; prc@philiprockcenter.org.

An Overview of Deaf-Blindness is available at https://nationaldb.org/library/page/1934

ACCOMMODATIONS
Students who are deaf or hard of hearing may require accommodations in their classroom environment to gain optimal benefit from their IEP. Teachers and other personnel must be able to communicate directly with the student in their preferred mode of communication (ASL, Total Communication, Cued Speech, oral, etc.). Good lighting (natural lighting is preferred), reduced noise, and a variety of visual aids can significantly improve the learning environment. Preferential seating may be indicated. Supplementary services such as note-takers, educational interpreters, and job coaches may also be required. An IEP/504 Checklist: Accommodations and Modifications for Students Who are Deaf And Hard of Hearing can be found at http://www.handsandvoices.org/pdf/IEP_Checklist.pdf.

Note taking
Students who are deaf or hard of hearing cannot watch the interpreter and/or teacher and take notes at the same time and may require note taking services. The teacher may provide a printed copy of instructions, assignments, and their own notes, or this may be assigned to another student in the class. Students could also be given a detailed outline of the material to be covered during the class period and a syllabus at the beginning of each grading period.

Educational supports
Educational supports for students who are deaf or hard of hearing may include:
• Amplification and audiological monitoring of amplification including FM systems
• Speech and language evaluations/services
• Audiological monitoring for middle ear problems and changes in hearing sensitivity
• Acoustic treatment of the classroom
• Modification of classroom activities
• Preferential seating in the classroom
• Monitoring of educational progress
• Accommodations or modifications to the curriculum and assessments

Cochlear implants may provide students who are deaf with access to auditory signals previously inaccessible through traditional amplification. Students with cochlear implants can be educated in a variety of educational settings, from mainstream classes to residential schools, utilizing a variety of communication methodologies. Regardless of the setting, it is important the child’s educational program include a strong auditory instructional component to maximize use of the implant. A collaborative approach including, the clinic which implanted the device, the educational team servicing the child, and the family, are all necessary to maximize the benefits of an implant. It is critical to focus on the total student rather than on his/her audiogram when developing an educational program.

OPTIONS AND SERVICE CONSIDERATIONS

IDEA mandates service considerations for students who are deaf or hard of hearing which require the following:
• Opportunities for direct instruction and communication in the student’s language and communication mode
• Linguistic needs
• Severity of the hearing loss and potential for using residual hearing
• Academic level
• Social, emotional, and cultural needs, including opportunities for direct peer interaction and communication in academic and non-academic areas
• Consideration of assistive technology devices and services if needed

Placement options as required by IDEA for students who are deaf or hard of hearing include:
• Home instruction
• Hospital schools
• Itinerant services (part-time instructional services, direct services, consultation)
• Regular classroom with or without specialized services such as consultation, monitoring, interpreting, resource, or augmentative devices
• Residential schools (part-time instructional services and partial mainstreaming or full time instructional services)
• Resource room (part-time instructional services and partial mainstreaming or full time instructional services)
• Special classes (part-time instructional services and partial mainstreaming or full time instructional services)
• Special schools (part-time instructional services and partial mainstreaming or full time instructional services)

All placement options must be available to each student who is deaf or hard of hearing in order to serve the changing needs of the student.

The 1988 COED report to the President stated:

“The educational process occurs through human interaction for the purpose of transmitting knowledge. Interaction is active; students are not passive in transmitting knowledge, but rather, participants in complex interactive behaviors...”

A positive self-concept, created through symbolic human interaction, enhances learning and is crucial for each child, disabled or not. However, when the child has a disability which profoundly impacts communication, interaction with others and learning in the classroom will be superficial. A student’s emotional stability and self-identity are at risk if the student is unable to communicate directly with peers and educational personnel. If a child has low self-esteem, tends to withdraw, or exhibits inappropriate behavior, the IEP should address the child’s emotional well-being. Such a child needs direct communication in a language and mode shared by peers and adults who are deaf or hard of hearing. Once the child is directly able to participate in complex interaction both in and out of the classroom, self-esteem is raised and learning takes place.

A critical mass of students who are deaf or hard of hearing is essential for the development of social skills, language and communication skills, emotional well-being, and cultural identity. These critical masses are generally available at cluster sites, special schools and residential schools for the deaf and hard of hearing. For a listing/map of Illinois programs, go to http://www.ishi-il.org/index.php?option=com_content&view=category&id=44&Itemid=61

VOCATIONAL AND CAREER OPPORTUNITIES

Preparing students for a career must be part of the school program. Vocational standards and Programs should be in place for students who are deaf or hard of hearing to provide organized instructional and training experiences from elementary school through high school.

Programs need to include:
• Career assessment and planning
• Community work experiences for secondary students
• Educational credit for student work experience programs
• Support services such as interpreters, note-takers, tutors, and job coaches
• Area vocational centers for prevocational and vocational education
• Advocacy training
• Job Shadowing and Deaf role-models and presenters.
• Real-life experiences
• Mock interviews
• Resume Development
Programs must adhere to The Rehabilitation Act of 1973, ADA, and IDEA 2004 which outlines nondiscriminatory requirements for all programs or activities serving persons who are disabled.

**TRANSITION**

**Transitioning from Early Intervention**

By the time a child in Early Intervention (EI) is 30 months old, the EI team will begin planning for the child’s transition from the EI Program to other services. Transition means a change in services. The Illinois EI Program ends for families when their child turns 3. To ensure that the child and family continue to receive appropriate services and supports, the Child and Family Connections (CFC) service coordinator will work with the family to look at options for the soon-to-be 3-year-old. If the family feels that they need more time, they can begin the process earlier than 6 months before the child turns 3.

If the child is eligible for specialized services after his/her third birthday, EI will develop an IEP for these services. The Local school district will be responsible for determining the child’s eligibility for continued services and for developing the plan with the family. The Illinois State Board of Education and the Bureau of Early Intervention (IDHS) have provided a workbook to assist families, EI providers, and preschool service providers called “When I Am 3, Where Will I Be?” The contents of this workbook can be found on the Department of Human Services Early Intervention website at [http://www.dhs.state.il.us/page.aspx?item=36319](http://www.dhs.state.il.us/page.aspx?item=36319).

“When I am 3, Where Will I Be” outlines the steps in planning for services that follow EI and describes the transition planning conference, the eligibility evaluation for new services, and the IEP meeting to identify goals for the child and services appropriate for meeting those goals. There will be a transition planning meeting at least 90 days before the child’s third birthday.

If the child is not eligible for specialized services, the CFC coordinator will help the family consider their options.

Transition at a glance for families:
At every IFSP meeting families will have the chance to talk about any transition questions or concerns.
When the child is 2 years 6 months, the service coordinator will work with families to develop a referral packet. Families will be asked to sign consent to send the child’s referral packet to the school district or special education cooperative.
When the child is between 2 years 6 months and 2 years 9 months, the service coordinator will arrange for a Transition Planning Conference.

When the child is 2 years 9 months, a Transition Planning Conference will occur which includes the family, service coordinator and one person representing the local school district.

When the child is between 2 years 9 months and 3 years, the local school district or special education cooperative may arrange to evaluate the child. The information in the child's referral packet plus any new evaluations will be used to determine if the child is eligible for special education and related services.

On or before the child's 3rd birthday, an Individualized Education Program (IEP) will be written by the IEP Team if the child is eligible for special education and related services.

If the child is not eligible for special education and related services, the service coordinator will help find other opportunities for young children in the community.

**Transitioning from High School**

**School to Work Initiatives**
Transition programming for deaf and hard of hearing students has become even more important under the No Child Left Behind Act. Transition services mean a coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. (IDEA 2004)

The purpose of School To Work is to give students a more in-depth view of the world of work, identify specific occupational skills, and ease the transition from school to the real world. Activities for elementary students may include field trips related to career awareness and job shadowing experiences. Activities for high school students may include job shadowing, mock interviews, career-technical courses, assistance with developing resumes, and volunteer and paid work experiences. A job shadowing experience allows a student to explore a specific career of interest by observing an employee perform his/her work duties at his/her (singular) place of employment. The experience should provide realistic career information that will aid the student in making career choices. [www.pepnet.org](http://www.pepnet.org)

Please refer to Illinois Post-High School Access to Transition Help for Deaf and Hard of Hearing. [www.isrc.us/ipathfordhh](http://www.isrc.us/ipathfordhh) for more information about transition as it relates to DHH.

Partnerships that are created between schools, employers, parents, students, post-secondary education, and community organizations benefit School to Work initiatives. Students learn from real-life experiences that are provided through these partnerships.
Transition planning beginning at age 14½ can continue until the day before the student’s 22nd birthday. (IDEA 2004)

The following items should be included in the IEP’s Transition Plan:

- Measurable post-secondary goals based on age appropriate assessments.
- Annual goals and short-term objectives to help move the student toward their post-secondary goals.
- Each student age 14½ & older should have a transition goal including an independent living goal & objectives. An independent living goal is now required for every student and not only “as appropriate”.
- Course of study that aligns with the student’s post-secondary goals.
- Transition service both in the school program (such as speech and language) and outside agencies (such as DHS-DRS) as active participants in the transition process.
- The deaf student as an active member of the IEP team. Self-advocacy skills are a vital part of the transition planning process each year.


Placement Decisions

Least Restrictive Environment considerations in the IEP must include a discussion of all the placement options for students across the full continuum of services. The typical definition of the least restrictive environment for a student with a disability is in a general education classroom in their home district with non-disabled peers. Due to the unique communication needs of students who are deaf or hard of hearing, this type of an environment may limit social and academic interaction, be isolating and more restrictive, resulting in it not being the LRE. Placement decisions should be based on the needs and services identified in the IEP. The severity of the hearing loss of the student as well as the language and communication needs should be considered in making placement decisions. IEP teams should annually review current services needed to determine if each student is appropriately placed. As children mature and change, so do their educational and emotional needs.
PLACEMENT OPTIONS

Placement options for students ages 3-21 who are deaf or hard of hearing include:

- Homebound Instructional Program
  - *11, 26

- Hospital Instructional Program
  - *12

- Special Schools Therapeutic
  (Part-time instructional services and partial mainstreaming or full-time instructional services)
  - *04, 08, 16, 24, 27

- Special Classes
  (Part-time instructional services and partial mainstreaming or full-time instructional services)
  - *01, 02, 03, 04, 30, 31, 32, 33

- Resource Room
  (Part-time instructional services and partial mainstreaming or full-time instructional services)
  - *01, 02, 03, 30, 31, 32, 33

- Residential Schools
  (Part-time instructional services and partial mainstreaming or full-time instructional services)
  - *09, 10, 13, 06, 25

- Itinerant Services
  (Part-time instructional services, direct services, consultation)
  - *01, 02, 03, 32, 33

- General Education Classroom with or without specialized services such as consultations, monitoring, interpreting resource and/or augmentative devices
  - *01, 32, 33

All placement options must be available to students who are deaf or hard of hearing in order to serve the changing needs of students.

*Numbers represent codes of the ISBE Funding and Child Tracking System (FACTS) and are NOT a ranking.
PERSONNEL STANDARDS

DIRECT SERVICE PERSONNEL FOR STUDENTS WHO ARE DEAF OR HARD OF HEARING

Professional personnel who provide direct service to students who are deaf or hard of hearing should include a licensed Supervisor/Coordinator of students who are Deaf/Hard of Hearing, and licensed Teacher(s) endorsed in Deaf and Hard of Hearing.

Illinois Administrative Code 226, section 226.800 discusses the rules for supervisory personnel of special education services. The rules require each district or cooperative to employ a sufficient number of supervisory personnel to provide consultation and coordination of special education services.

Supervisors/Coordinators of Programs for Students who are Deaf and Hard of Hearing
Supervisors of the programs for students who are Deaf/Hard of Hearing must hold either a Professional Educator License endorsed for Supervision specifically in Deaf and Hard of Hearing (which requires a teaching endorsement in deaf and hard of hearing with two years teaching experience with students who are deaf/hard of hearing), or a Professional Educator License with an endorsement of general supervisory, general administrative, principal, or other administrative endorsement plus a Teaching endorsement in Deaf and Hard of Hearing. (Note that the general administrative endorsement is only issued by ISBE through 8.14.2014 as that endorsement has been replaced with the Principal endorsement with the requirement of four years of teaching experience. Also the general supervisory endorsement is no longer issued. Those who have already received these endorsements may continue to be employed with these endorsements.)

The Supervisor/Coordinator of students who are Deaf/Hard of Hearing should meet the required teaching experience teaching students who are deaf and hard of hearing. Supervisors should demonstrate the ability to promote teacher effectiveness and student achievement, facilitate and monitor the development or adaptation of curriculum, oversee appropriate pupil placement, prepare and monitor budgets, expedite hiring of personnel (e.g., classroom teachers, educational interpreters, classroom aides, interveners, and other educational personnel), supervise and evaluate program staff, and provide in-service workshops. Supervisors must have experience or knowledge of educational program placement options and related services for students who are deaf or hard of hearing. On-going consultation and in-service training from a licensed professional who specializes in the area of Deaf and Hard of Hearing should be provided to teachers and support staff who work with students who are deaf and hard of hearing.

For more information, go to: http://www.isbe.net/rules/archive/pdfs/226ark.pdf
For a list of programs and supervisors/coordinators for services to students who are deaf or hard of hearing, go to:

Teachers of Students who are Deaf and Hard of Hearing
Teachers must have completed an accredited university/college program preparing teachers in the education of students who are deaf and hard of hearing, and must hold a valid Professional Educator License issued by the Illinois State Board of Education and be endorsed in Deaf and Hard of Hearing. Additionally teachers must meet the requirements to be Highly Qualified in the core academic areas taught as well in deaf/hard of hearing. Teachers should demonstrate the ability to communicate in the language or communication mode (e.g. sign language, oral, cued speech) of the individual student. The teacher of students who are deaf or hard of hearing should have the ability to interpret educational assessments and determine current performance levels, and to develop IEPs. The teacher should assess, plan and implement educational programs using specialized techniques, methods and technology appropriate for students who are deaf and hard of hearing as specified by individual child’s IEP. Teachers must have knowledge of special considerations, placement options and specific educational and communication needs of the students as listed in this document. The teacher must be able to determine that the needs of integrated/mainstreamed students are being met, and that general education staff in the school system are provided in-service on the unique nature of deafness. Teachers of students in integrated or mainstream settings should be knowledgeable of team teaching and collaboration techniques. Teachers of infants/toddlers, preschool, elementary, secondary and students with multiple disabilities are encouraged to obtain additional training, background and endorsements in the areas in which they teach.
Http://www.isbe.net/peac/pdf/il_prof_teaching_stds.pdf

Educational Interpreters
Students who are deaf or hard of hearing may require educational interpreters. These interpreters must comply with Illinois Administrative Code 23, Subtitle A, Section 25.550 (the Code): http://www.isbe.net/rules/archive/pdfs/25ark.pdf , and be approved by the Illinois State Board of Education (ISBE) (see Appendix J for a list of interpreter training programs in Illinois).

Students who are deaf or hard of hearing and mainstreamed may require the services of oral/aural, sign language, cued speech, or deaf-blind interpreters to understand the instructional material presented by the teacher, and the class discussions involving other students. It is critical to students who are deaf or hard of hearing that only interpreters approved by ISBE be employed in regular educational settings. These interpreters must meet competency levels as specified in the code in both receptive and expressive aspects of the communication system used by the student. Particularly crucial is the ability of the interpreter to keep pace with the teacher’s presentation and class discussions, to interpret at the student’s functional language level, and to voice interpret for the teacher and students who can hear so

Revised 10.28.2015
that the students who are deaf or hard of hearing can fully and freely participate in the instructional process. Students who are deaf or hard of hearing should be provided instruction on how to effectively use an interpreter’s services.

An interpreter must be made available to individuals who are deaf or hard of hearing when indicated in the individualized education program. This person may provide the following services:

- Assistance in facilitating communication between students who can hear and students who are deaf or hard of hearing;
- Interpreting services at all school levels including extracurricular activities, according to individual need; and
- Tutoring assistance under direction of a teacher for students who are deaf or hard of hearing.


Additional information about ISBE approval and testing can be found at: [https://www2.illinois.gov/idhhc/PAGES/eduterp.aspx](https://www2.illinois.gov/idhhc/PAGES/eduterp.aspx)

**Interveners**

Interveners provide communication and environmental access for students who are deaf-blind. Interveners have the responsibility to facilitate the access of information which is usually gained through vision and hearing, but which is unavailable or incomplete to the individual who is deaf-blind. The intervener also facilitates the development and use of receptive and expressive communication skills by the individual who is deaf-blind. More information is available at:

The national definition of intervener services: [http://0a6a5bfc42275da80092-13cee80c2bfb23b1a8fcedea15638c1f.r47.cf1.rackcdn.com/cms/NCDB_Intervener_Services_Definition_179.pdf](http://0a6a5bfc42275da80092-13cee80c2bfb23b1a8fcedea15638c1f.r47.cf1.rackcdn.com/cms/NCDB_Intervener_Services_Definition_179.pdf)

An introduction to the National Center on Deaf-Blindness Intervener Initiatives [https://nationaldb.org/initiatives/profile/intervener-services](https://nationaldb.org/initiatives/profile/intervener-services)

Information on the Open Hands, Open Access Free Deaf-Blind Intervener online learning modules-[https://nationaldb.org/ohoa](https://nationaldb.org/ohoa)

FAMILY SUPPORTS

Support systems are necessary for families with students who are deaf or hard of hearing. Training and information for families about such things as communication, child development, assistive technology, sibling issues, and Deaf culture are essential for families.

Support systems are necessary for students to be part of their classroom, school, and community. Students need opportunities to directly communicate with age and language peers, appropriate accommodations in their learning environment, and opportunities for full participation in the community.

Parents, foster parents, guardians and care givers need access to resources, and opportunities to meet and network with other families, advocacy organizations and professionals in order to enhance educational opportunities, community integration and recreation and leisure for their students who are deaf or hard of hearing. For a comprehensive, up to date listing of state and national resources for parents of children who are deaf or hard of hearing, go to: http://www.choicesforparents.org/wp-content/uploads/2010/05/Resources2.pdf

Families should be included on advisory boards and committees in state and local agencies and organizations.

Families need to know their rights and responsibilities, the implications of deafness, treatments and technology available, best practices in the field of deafness and information regarding transition from school age programs to adult career or educational opportunities.

Support for families with a child who is deaf or hard of hearing and exhibits emotional or behavioral problems is available through the Illinois Service Resource Center (ISRC).

ILLINOIS SERVICE RESOURCE CENTER

ISRC is a component of the Illinois State Board of Education Statewide Technical Assistance Center, providing behavioral support for students who are deaf and hard of hearing in Illinois.

Behavior support is provided at all three tiers of the Response to Intervention model, at the program-wide, classroom-wide, and individual student levels, corresponding to the Universal, Targeted, and Individualized/Tertiary levels of service.

- Universal Level – Support for DHH programs in developing and implementing Positive Behavior Interventions and Supports (PBIS) or PBIS-type school-wide or program-wide behavior support programs.
- Secondary/Targeted Level – Support data collection and development of targeted interventions such as Check In Check Out (CICO).
• Tertiary/Individualized Level – Wraparound-type Home-School Team support, home visits to support coordination of behavior support between home and school, support with FBA/BIP development.

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**ISRC Office Location/Contact Information**

3444 West Dundee Road  
Northbrook, IL 60062  
847/559-0110  
847/559-8199 FAX  
www.isrc.us  
isrc@isrc.us

**Helpline Voice/TTY 1-800-550-4772**

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School Code of Illinois 5/14-11.0
DEAF CULTURE

The Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD)'s Child First campaign noted that language deprivation is disabling and stated:

“Being deaf is not what disables a child—it is language deprivation that results from diminished exposure and access to meaningful language and communication. On-going access to language and communication is essential for normal cognitive functioning and development and is taken for granted for every hearing child. Without comparable access, deaf and hard of hearing children lose the opportunity to become thinking, literate, self-sufficient individuals. Instead, they experience disadvantages and delays that can become impossible to overcome. All too often inaccurate information is disseminated about the best way for deaf and hard of hearing children to learn language. Renowned researcher, Laura Pettito, said it best when she said that the brain does not discriminate between signed and spoken languages, people do. (Pettito, 2009)”  

http://www.ceasd.org/child-first-statement-of-principles

“People develop identities with groups of other people who share similar life experiences. These groups are generally characterized by the use of a common language. People within each group also share a belief system that governs their behavior, a specific way of conceptually organizing the world, a set of values, and a rich heritage of traditions.”

http://www2.mcdaniel.edu/BilingualEducation/LairdNotes.html  Deaf people are one such group. They have a strong sense of identity as members of the Deaf Community. They also share certain cultural aspects of the Hearing Community and apply those cross-cultural skills in order to achieve economic and political goals and to communicate with Hearing people. (Laird, American Deaf Culture.) We need to recognize Deaf people as a linguistic and cultural group that is committed to the preservation of the group’s rich cultural heritage and to nurturing its growth and development (Geeslin, pg.143).

Lane, Hoffmeister, and Bahan (1996) have stressed that a natural signed language is the best visual-spatial language for a deaf child to acquire at birth. Similar to a hearing child who acquires spoken language, a deaf child can have full access to communication and psycholinguistic development through signed language. Moreover, cultural aspects of any language are an important consideration, and ASL is no exception to the rule. Kannapell (1993) has explained that the definition of cultural identity among deaf people should be based on how deaf people identify themselves in terms of language identity, personal identity, and social identity. These three major types of identity strongly interrelate with ASL. Many deaf people feel a strong kinship to each other through the use of ASL. They experience living in a fundamentally non-signing society with all of the aforementioned challenges of lacking access through language and communication (Higgins, 1980; Mitchell, 2006; Schein, 1989; Senghas & Monaghan, 2002). Why ASL is a crucial requirement for membership in the deaf community is understandable. Personal identity is crucial to the development of language and social identity.
among deaf children. If their language identity is ambiguous, then personal identity is ambiguous, and their social identity is marginal (Kannapell, 1993). The crucial part of identity is language, because ASL is the main part of deaf children’s lives; it moves them toward establishing their own personal and social identities, enabling them to feel connections in their world (Horejes, 2009). Outside of families, of which only one in 20 readily and fluently provide ASL to their deaf children at birth (Mitchell, 2004; Mitchell & Karchmer, 2005), schools for the deaf are the primary societal institutions organized to promote, support, and sustain ASL education and ASL-fluent communities.
GLOSSARY

Definitions and Terms Used in Deaf Education
This section contains words or terms commonly used in the identification, evaluation, assessment and service provision of children who are deaf or hard of hearing.

**Acoustics**: The qualities of a room, hall, auditorium, etc., that determine how well sounds can be heard.

**Amplification**: The process of increasing the power of a signal (sound). In audiologic reports this term may refer to hearing aids, cochlear implants and assistive listening devices.

**American Sign Language (ASL)**: ASL is a visual language which is produced in a visual-spatial mode and has its own phonology, syntax, and morphology. ASL has a rich history of literature and culture.

**Assistive listening device**: Specially designed electronic equipment for use by individuals who are deaf or hard of hearing. It amplifies speech and other sounds using a microphone, transmitter and receiver and channels sound more directly to the person.

**Audiogram**: An audiogram is a graph of the softest levels at which an individual can hear sound. It is a picture of the results of a test that is done by an audiologist and shows the intensity and frequency.

**Audiologist**: An individual who is professionally trained to administer and interpret hearing evaluations and to discuss appropriate remediation; a specialist who tests an individual’s ability to hear.

**Audiology services**: Identification of auditory impairment, determination of the range, nature and degree of hearing loss and communication, referral for medical and other services as necessary, provision of auditory training, aural rehabilitation, speech reading and listening device orientation and training, and determination of the child’s need for individual amplification, including selecting and dispensing appropriate listening and vibrotactile devices, and evaluating the effectiveness of those devices.

**Auditory skill development (auditory training)**: The use of special techniques and equipment to assist children who are deaf or hard of hearing with the identification and understanding of sound.

**Auditory verbal philosophy**: Emphasizes the earliest use of the most appropriate type of high-tech amplification to facilitate the acquisition and use of spoken language. A comprehensive plan is created which focuses on developing the ability to listen and communicate with spoken
language.

**Auditory-verbal programs:** Emphasize the development of speech and listening skills by the use of high tech amplification.

**Aural habilitation:** Specialized services for children who are deaf or hard of hearing which helps develop language and communication skills including speech reading, listening and speaking.

**Auditory Evoked Potentials:** This test measures hearing from the level of the outer ear through the lower brainstem. Electrodes are attached to the child’s head and earphones are placed on the child’s ears. Sounds are transmitted through the earphones and the electrodes measure how the child’s brain responds. This test gathers specific information about the child’s hearing at different pitches and loudness levels.

**Auditory Neuropathy:** A type of hearing loss in which the outer hair cells in the cochlea are present and functional, but sound is not transmitted to the auditory nerve and brain functionally. It is also known as auditory dysynchrony or auditory neuropathy spectrum disorder. (ANSD).

**Auditory Processing Disorder (APD):** Auditory processing is the term used to describe how the central nervous system (CNS) uses auditory information. APD is an auditory deficit that is not the result of a hearing loss or other higher-order cognitive, language, or related disorder.

**Bone Conduction Device (Also known as a “BAHA”):** amplification using specific bone conduction. Sound is picked up by a special processor that vibrates the mastoid bone and sends information straight to the cochlea, bypassing the damaged or missing parts of the external and/or middle ear.

**Bilateral hearing loss:** A hearing loss in both ears.

**Bilingual-Bicultural (Bi-Bi):** Education that emphasizes the early use of American Sign Language. ASL is used as the language of instruction and English is taught by reading and writing. Both English and ASL are valued as are the cultures.

**Case Study:** Also called an Eligibility Review, is a series of in-depth, multi-disciplinary diagnostic procedures conducted within an established time frame and designed to provide information about the child, the nature of the problems which are or will be affecting his/her educational development and the type of intervention and assistance needed to alleviate these problems.

**Cochlear implant:** An auditory prosthesis that uses electrical current to stimulate the auditory system which the brain interprets as sound. It does not restore normal hearing. The implant consists of a surgically placed internal receiver and an externally worn microphone, signal processor, and transmitter.
**COED:** Commission on Education of the Deaf. A presidential commission established to review the state of deaf education in the U.S. The final report with recommendations was published in 1988.

**Conductive Hearing Loss:** This type of hearing loss involves the outer and/or middle ear. A conductive loss prevents sound from moving effectively through the outer and/or middle ear to the inner ear.

**Congenital:** Present at birth.

**Consultation:** The level of service to a student who is deaf or hard of hearing requiring an IEP/504 plan but not removing the student from the regular classroom. Consultation service may involve providing strategies and materials to the regular classroom teacher, collaborative teaching with that teacher, and/or teaching small groups of students within the classroom.

**Counseling services:** Services provided by qualified personnel such as social workers, counselors, psychologists or guidance counselors.

**Cued Speech:** A visual communication system or code of hand shapes which represent different sounds of speech. These cues are used while talking in order to allow the child to distinguish between sounds that look the same on the lips.

**Deaf (Culturally Deaf):Deaf culture** is the set of social beliefs, behaviors, art, literary traditions, history, values, and shared institutions of communities that are influenced by deafness and which use sign languages as the main means of communication.—

**Deafness: (IDEA)** A hearing loss so severe or profound that the individual experiences difficulty in processing speech through hearing, with or without amplification.

**Deaf-Blind:** The term deaf-blind covers a wide range of hearing and vision loss - from complete deafness and blindness to vision loss of 20/70 in the better eye (corrected) or decreased visual field (20 degrees or less) and a mild hearing loss of 30 dB in the better ear (aided).

**Decibel (dB):** A measurement of sound intensity. The larger the number, the louder the sound.

**Direct services:** Educational services that are provided on a regular basis to the student who is deaf or hard of hearing, as outlined by the IEP. These services can be provided in a variety of settings.

**Environmental Sound:** Sounds that occur in the person’s surroundings.

**Fingerspelling:** Spelling words using the manual alphabet hand shapes.
Fluency (Reading): Fluency is the ability to read text accurately and quickly with proper expression.

Fluctuating Hearing Loss: This type of hearing loss refers to hearing levels that change, or fluctuate. A student may have better hearing on some days and poorer hearing on other days.

FM System: Personal frequency modulation (FM) systems transmit sound on special frequencies for individual users. The system consists of a transmitter worn by the teacher or other speaker, and a receiver which transmits sound to the ear, typically via an ear level device. FM’s can also be called assistive listening device, ALD, Roger, HAT-hearing assistive technology to name a few.

Gain: The amount that a hearing aid amplifies sound. Gain is expressed in decibels (dB).

Hard of hearing: A hearing loss which prevents development of full awareness of environmental sounds and spoken language, with or without a hearing aid. Normal language acquisition and academic achievement may be impacted.

Hearing Impaired: A generic term used to refer to persons with a loss of hearing whether it is mild, moderate, severe or profound. Although the IDEA refers to the disabling condition of hearing impairment as a disability label, this term is not an acceptable way to refer to the population of people with hearing loss. Deaf or Hard of Hearing is more accepted is considered politically correct.

Hearing screening: A process through which individuals are identified for further assessment and audiometric evaluation.

Individualized Education Program Plan (IEP): A written statement of the child’s present levels of educational performance, annual goals and short-term instructional objectives, specific special education and related services, the extent of participation in the regular education program, the projected dates for initiation of services, anticipated duration of services, appropriate objective criteria and evaluation procedures, and a schedule for annual determination of short-term objectives.

Interveners: Interveners provide communication and environmental access for students who are deaf-blind. Interveners have the responsibility to facilitate the access of information which is usually gained through vision and hearing, but which is unavailable or incomplete to the individual who is deaf-blind. The intervener also facilitates the development and use of receptive and expressive communication skills.

Itinerant Teacher: A hearing itinerant teacher is a certified teacher of the Deaf and Hard of Hearing who works with students with hearing impairments attending their home school and other educational sites. The hearing itinerant teacher provides services as determined by the student's IEP.
**Mild Hearing Loss:** A hearing loss between 20 dB and 40 dB

**Moderate hearing loss:** Hearing loss between 41 dB and 55 dB

**Moderately-severe hearing loss:** Hearing loss between 56 dB and 70 dB

**Normal hearing:** Thresholds of hearing at 20 dB or less.

**Oral-Aural:** This method stresses the development of speech, speech reading, and auditory development.

**Otitis media:** Inflammation or infection of the middle ear.

**Otoacoustic Emissions Testing (OAE):** A small probe is placed in the student’s ear canal and a sound, generated by the testing equipment is sent to the cochlea (inner ear). If the hair cells in the cochlea are normal, an otoacoustic emission is generated and measured by the equipment.

**P.E. tubes:** Pressure equalizing tubes. Tiny plastic tubes that are inserted in the eardrum. They are sometimes used to treat chronic otitis media. Also known as ventilation tubes.

**Phonemic Awareness:** The ability to notice, think about and work with the individual sounds in spoken words.

**Phonics:** The relationships between the letters (graphemes) of written language and individual sounds of spoken language.

**Placement Options:** The availability of different types of educational environments, for example: general education classes, resource room classes, self-contained classes, day and residential special schools, home instruction, hospital instruction, and institutional instruction.

**Progressive Hearing Loss:** A progressive hearing loss occurs when children lose their hearing over time. This loss is permanent.

**Pure Tone:** A single frequency sound without accompanying overtones or other sounds.

**Pure Tone Average (PTA):** The average of hearing thresholds at the frequencies 500 Hz, 1000 Hz, 2000 Hz for each ear.

**Pure Tone testing:** Hearing testing done to establish an individual’s threshold of hearing at individual frequencies.

**Re-evaluation:** A series of diagnostic procedures which are performed for the purpose of determining a child’s continued eligibility for special education.
**Referral:** A formal procedure, established by the local school district, by which an eligibility review may be requested.

**Related services:** Developmental, corrective, and other supportive services which are required to assist a child with a disability to benefit from special education program.

**Residual hearing:** The amount of unaided, useable hearing.

**Resource program:** A classroom model which serves children with disabilities of varying ages who are able to function in a general education classroom the majority of the school day. Support services and specialized supplementary instruction are provided, as defined in the student’s IEP.

**Special Classes:** A classroom model in which the student’s needs, as defined by the IEP, are met by a special education teacher for most of the day.

**Sensorineural Hearing Loss:** This type of hearing loss involves the inner ear, usually the cochlea. Hearing loss results when tiny hair cells inside the cochlea are not fully formed or are damaged.

**Severe loss:** A hearing loss between 71 dB and 90 dB.

**Sign Language:** A system of communication using visual gestures and signs, as used by deaf people. Includes American Sign Language (ASL), Signed English (SE), Manually Coded English (MCE), Signing Exact English (SEE), Pidgin Signed English (PSE), Conceptually Accurate Signed English (CASE), Contact Sign, and Fingerspelling.

**Special education:** A system of supports put in place to meet the needs of the student as determined by the IEP team to assist the student in accessing the general education curriculum.

**Speech reading:** The process by which a person attempts to follow a conversation by watching a speaker’s lip movements. This is also called lipreading. Only of 30% of speech is visible on the mouth.

**Total Communication (TC):** Total communication focuses on using the individual student’s preferred modes of communication. It includes oral, auditory, speech reading, sign language, writing, and gestures. Instruction emphasizes signing, fingerspelling, and speaking at the same time. Amplification and speech reading are important components of TC.

**Transliteration:** The process of going from a spoken modality to a signed modality while staying within the same language.

**Unilateral hearing loss:** A hearing loss occurring in one ear.

**Ventilation tubes:** See P.E. tubes
WEB LINKS AND RESOURCES

Accommodations and Modifications for Students Who are Deaf And Hard of Hearing:

Accommodations for Students With Hearing Loss:
https://successforkidswithhearingloss.com/relationship-hl-listen-learn/accommodations

Articles on deaf-blind interpreting and modifications to sign language for tactile sign:
https://nationaldb.org/library/list/20
http://www.deafblind.com/slmorgan.html
http://www.projectsalute.net/Learned/Learnedhtml/TactileSigning.html
http://www.protactile.org

Assessments:
PAARC http://isbe.net/assessment\parcc.htm
Dynamic Learning Map-Alternate Assessment-DLM-AA
www.isbe.net\assessment\dlm.htm

Assistive Technology:
http://gurc-midwest.weebly.com/the-assistive-technology-project.html
https://delicious.com/hlpuears/Assistive%20Technology

School-based Audiology Services:

Basic Facts about Deafness: http://www.hearingloss.org/content/basic-facts-about-hearing-loss


Choices for Parents:

Deaf-blind Communication Options:
http://aadb.org/factsheets/db_communications.html
http://www.hknc.org/Guidelines.htm

Deaf Students Education Services policy guidance:
http://www2.ed.gov/about/offices/list/ocr/docs/hq9806.html
Deaf Students with Disabilities:
https://www.gallaudet.edu/clerc_center/information_and_resources/info_to_go/educate_children_(3_to_21)/students_with_disabilities.htm

Demographic Aspects of Students who are deaf or hard of hearing:
https://www.gallaudet.edu/rsia/research_support/demographics.html

Department of Human Services Early Intervention website:
http://www.dhs.state.il.us/page.aspx?item=36319

Developing the IEP:


Educational Interpreting:


Illinois Administrative Code 23, Subtitle A, Section 226 Special Education:

Illinois Learning Standards: http://isbe.net/ils/default.htm


Interveners: http://intervener.org/?page_id=137

Interveners-National Definition: http://0a6a5bfc42275da80092-13cee80c2bfb23b1a8fcedea15638c1f.r47.cf1.rackcdn.com/cms/NCDB_Intervener_Services_Definition_179.pdf

ISBE IEP information or copies of the forms: http://www.isbe.state.il.us/spec-ed/html/forms.htm

Mental Health Programs for Students who are Deaf or Hard of Hearing in Illinois

• Illinois Department of Human Services' Division of Mental Health:  
  http://www.dhs.state.il.us/page.aspx?item=33007
• Center on Deafness:  http://www.centerondeafness.org/
• Thresholds Bridge:  http://www.thresholds.org/our-work/programs/deaf-program/
• Illinois Service Resource Center:  http://www.isrc.us/
• Mental Health and Deafness Resources:  http://www.mentalhealthanddeafness.org/

National Center for Learning Disabilities website:  http://goo.gl/qPX0YQ

On-going consultation and in-service training from a licensed professional who specializes in the area of Deaf and Hard of Hearing:  http://www.isbe.net/rules/archive/pdfs/226ark.pdf

Overview of Deaf-Blindness:  https://nationaldb.org/library/page/1934

Philip J. Rock Center and School:  http://www.philiprockcenter.org

Print on Palm System:  http://www.hknc.org/Guidelines.htm

Programs and supervisors/coordinators for services to students who are deaf or hard of hearing:  

Project Reach:  http://www.philiprockcenter.org/project-reach

Standard Practice Paper for educational interpreters:  


Interpreter Training Programs
• Columbia College Chicago:  http://www.colum.edu
• Harper College:  www.harpercollege.edu
• Illinois Central College:  http://www.icc.edu
• John A. Logan College:  http://www.jalc.edu/ipp/
• MacMurray College:  http://www.mac.edu
• Quincy University:  http://www.quincy.edu
• Southwestern Illinois College:  http://www.swic.edu/SLS/
• Waubonsee Community College: [http://www.waubonsee.edu](http://www.waubonsee.edu)
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Classroom Accommodations

Classroom Suggestions to Accommodate a Student with a Hearing Loss

1. Assign a favorable seat, usually toward the front of the room. Permit the student to turn to watch the faces of others. This may require changing seats for some activities, as the student needs to ‘see’ in order to hear.

2. Background noise can cause great difficulty. Seat the student away from open doors, windows, blowers, or fans.

3. Gain the listener’s attention before speaking. Use face-to-face communication and close proximity when speaking to the student. Speak naturally and do not exaggerate lip movements.

4. If what you say is not understood, rephrase rather than repeat since some words or phrases are difficult to speech read or comprehend. It is helpful for the student to repeat critical information back to you to insure successful exchange of information.

5. When you speak, avoid standing with your back to the windows, as looking into glare makes speech reading very difficult and can cause eye strain. Try not to talk with your back to the class while writing on the board. Talk from the back of the room only when the student can see your face and is aware that you are speaking. When dictating spelling words, story problems, etc. choose one place to stand rather than walking while talking. Guard against covering your mouth with your hands, a book or paper while you are talking.

6. Assign a ‘buddy’, a capable student, next to the student with the hearing loss to be sure assignments and directions are understood.

7. Repeat questions asked by others that are seated behind the student, before allowing the answer to be given. Repeat P.A. announcements and/or jot them on the board.

8. In group situations help by identifying the speaker and by controlling the pace of the discussion.
9. Write assignments, directions, vocabulary, definitions, outlines and notes on the board or overhead.

10. Pre-tutoring: Inform parents and resource personnel of planned vocabulary, concepts and language topics that will be covered allowing the student to more easily follow and participate in classroom activities.

11. Establish positive attitudes by helping the class understand hearing loss. Invite specialists to discuss the ear, hearing loss, hearing aids, famous people with a hearing loss, etc.
Hints for Teachers and Counselors of Secondary Education Students with a Hearing Loss

1. Assign a favorable seat, usually toward the front of the room. Permit the student to turn to watch the faces of others. This may require changing seats for some activities, as the student needs to ‘see’ in order to hear.

2. Background noise can cause great difficulty. Move the student away from hall noise, fans, blowers and open windows.

3. When you speak, avoid standing with your back to the windows, as looking into glare makes speech reading very difficult and can cause eye strain. Try not to talk with your back to the class while writing on the board. Talk from the back of the room only when the student can see your face and is aware that you are speaking. Choose one place to stand rather than walking while talking. Guard against covering your mouth with your hands, a book or paper while you are talking.

4. Students with a hearing loss need visual access to information. Write assignments, directions, vocabulary, definitions, outlines, and notes on the board or overhead.

5. When using charts, maps, handouts, overheads, etc. pause to allow the student to look at the material, and then resume speaking. It is not possible to look at visual aid and speech read simultaneously.

6. Provide written outlines of discussion topics, films, and filmstrips. Investigate the use of captioned films.

7. Repeat P.A. announcements, and/or jot them on the board. Repeat questions asked by others that are seated behind the student before giving the answer.

8. During class discussions, keep the pace slow enough for the student to seek out and observe the speaker. Enforce hand raising rules. Point to the speaker.

9. If the student is willing, discuss hearing loss and its implications with the class. Enlist his/her help in regulating the pace of class discussions.

10. Select a competent peer note taker to provide the student with daily class notes.
11. Tutoring: If available, utilize peer and resource personnel to reinforce and review vocabulary, concepts and language topics allowing the student to more easily follow and participate in class activities.