



## SELF ADVOCACY & ACCOMMODATIONS SUPPORTING ACCESS FOR STUDENTS WITH HEARING LOSS

### Communication Access

- 1. Appropriate amplification fitting for optimal perception of soft speech (35 dB HL)
- 2. Student is engaged in increasing responsibility for monitoring function of amplification device(s)
- 3. Appropriate acoustic characteristics of classroom: maximum 35 dBA unoccupied and 0.6 second reverberation
- 4. Classroom sound field (sound distribution) system if student has understanding of words/phrases of 90% or greater in quiet and 80% or greater in noise (+5 dB S/N) per Functional Listening Evaluation or clinical speech perception in noise evaluation. Appropriate to use only when reverberation is at 0.6 seconds or less.
- 5. Personal FM system if student has understanding of words/phrases of less than 90% in quiet and noise (+5 dB S/N)
- 6. Ensure that all video media are captioned if used for instructional purposes; use FM transmitter near video speaker.
- 7. Ensure full access to computer audio by inputting FM transmitter into auxiliary access port.
- 8. Ensure full access to school assemblies via use of FM transmitter, captioning, discussing expected content prior to the school assembly.
- 9. Ensure full access to daily school announcements via use of FM transmitter by loudspeaker or video speaker, writing relevant information on white board.
- 10. Teacher and student have a signal system to inform the teacher when difficulties in understanding occur.
- 11. Teacher faces student during all verbal instruction (write on the white board and then face class and instruct).
- 12. Teacher encourages student to (1) close door if hallway noise is interfering with listening, (2) remind teacher if FM transmitter is not in use, (3) request use of FM in small group/social situations, (4) use communication repair requests for clarification to advocate for own understanding needs.
- 13. Teacher writes page numbers, assignments and other important information on white board prior to its presentation or simultaneous to presenting the information.
- 14. Teacher routinely provides extra repetition of key, important, or new concept material beyond what most students in the classroom would require to understand the information.
- 15. Teacher explains idioms and multiple meaning words as they spontaneously occur in the classroom environment.
- 16. Use visual phonics support for access to early literacy instruction.
- 17. Ensure that student is able to effectively access use of audio books through hearing technology.
- 18. Repeat, restate, summarize comments during classroom discussion; pass FM or classroom sound distribution microphone for student use; call on students by name; allow only one person to speak at a time.
- 19. In small group or cooperative learning situations allow the student's group to use the FM transmitter and/or to move out of the classroom to a place without competing conversation (i.e., hallway, library).
- 20. Use buddy system for alerting student to changing activities, directions or for simple 1:1 repetition if student is not able to access 90% or more of verbal instruction while using appropriate hearing technology (K-3, with dependence decreasing as communication repair and self advocacy skills are integrated into student's communication).
- 21. Use notetaking or classroom instruction captioning if student is not able to access 90% or more of verbal instruction while using appropriate hearing technology (grade 4 and above).
- 22. Use oral interpreter to provide guidance, reinforce classroom directives, 1:1 support if student is not able to access 75-80% of verbal instruction while using appropriate hearing technology and provide opportunities for successful peer-to-peer communication (encourage communication repair, self advocacy, pragmatic social skills).
- 23. Use sign language interpreter or cued speech transliterator to provide full access to classroom communication if student is not able to access at least 70-75% of verbal instruction while using appropriate hearing technology and provide opportunities for successful peer-to-peer communication (encourage communication repair, self advocacy, pragmatic socialization skills, sign/cue clubs).

## **Communication Interaction**

- 1. Exhibits stage four conversational skill development (stages per P. Stone, 1988).
- 2. Uses effective communication repair skills when communication breakdown occurs due to not being understood or to not being able to understand the teacher, peers and others (direct teaching skills, role play, small group, classroom).
- 3. Uses an assertive style of communication
- 4. Understands and implements the rules of conversation
- 5. Understands age-appropriate language related to directions.
- 6. Understands multiple meaning words typical of peers.
- 7. Understands idiomatic expressions typical of peers. <http://idioms.thefreedictionary.com/>
- 8. Is knowledgeable of the situations or conditions in which hearing problems can occur, what the effect is on functional listening and is prepared to advocate for full access to information in problematic situations.
- 9. Is able to respond appropriately and confidently if asked about hearing loss, hearing technology.
- 10. Listening in noise capability is improved via the systematic practice of hierarchy of auditory skills (i.e., auditory memory, auditory closure, auditory analysis, auditory blending, auditory figure ground, auditory tracking, comprehension).

## **Additional Supports**

- 1. Inservice to school staff regarding student listening abilities, communication and access needs.
- 2. Classroom observation in fall to identify access, communication and classroom management issues present in new classroom.
- 3. Monitor classroom function at least 2-3 times per year (October, January, May) (i.e., Screening Instrument For Targeting Educational Risk (SIFTER) for preschool, school-age, secondary).
- 4. Adult involvement in daily hearing technology listening check as appropriate to student age and level of independence.
- 5. Annual hearing evaluation to monitor change in hearing ability, speech perception or hearing technology needs.
- 6. Appropriate fitting of FM devices to ensure transparency and to identify optimal speech perception skills.
- 7. At least biannual electroacoustic evaluation of hearing aids to ensure appropriate function for perception of speech.
- 8. Student involvement in identifying school situations in which listening and understanding are difficult (administration of the Listening Inventory For Education (LIFE) Student Appraisal) beginning approximately age 8 and use this information to discuss effectiveness of access accommodations with teacher.
- 9. Supports for socialization success (i.e., attention to pragmatics, socialization skill teaching, informal social groups)
- 10. Linkage to other students with hearing loss (hearing aids, cochlear implants) for emotional support and interactive learning about topics relevant to being hearing impaired, especially if student is only individual in school using hearing technology.

## Special Considerations - Relevant Support for Interventions

### Communication Access

1. Appropriate amplification fitting for optimal perception of soft speech (35 dB HL).
  - a. Madell, J. & Flexer, C. (2008). *Pediatric Audiology: Diagnosis, Technology, Management*. Thieme, NY.
  - b. Madell, J. Using Speech Perception Testing to Maximize Performance:  
[http://www.oticonusa.com/eprise/main/SiteGen/Uploads/Public/Downloads\\_Oticon/Pediatric\\_Proceedings/Using\\_Speech\\_Perception\\_Testing\\_to\\_Maximize\\_Auditory\\_Performance.pdf](http://www.oticonusa.com/eprise/main/SiteGen/Uploads/Public/Downloads_Oticon/Pediatric_Proceedings/Using_Speech_Perception_Testing_to_Maximize_Auditory_Performance.pdf)
2. Student is engaged in increasing responsibility for monitoring function of amplification device(s) [improvement].
  - a. Elfenbein, JL, Bentler, RA, Davis, JM, Niebuhr, DP. (1988). Status of school children's hearing aids relative to monitoring practices. *Ear and Hearing*, 9(4), 212-217.
  - b. Roeser, RJ & Downs, MP. (2004). *Auditory disorders in school children: the law, identification, remediation*. Thieme Publishing.
  - c. French, M.A. & Loven, F. Opportunities in Schools: Improving amplification through multi-skilling. *Hearing Review*, December, 2000.
3. Appropriate acoustic characteristics of classroom: maximum 35 dBA unoccupied and 0.6 second reverberation
  - a. American National Standards Institute/Acoustical Society of America (2010). ANSI/ASA S12.60-2009/10. American National Standard: Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 1: Permanent Schools & Part 2: Relocatable Classroom Factors.
  - b. Anderson, KL (2003). Kids in noisy classrooms: What does the research really say? *Journal of Educational Audiology* (9)21-33.
4. Classroom sound field (sound distribution) system if student has understanding of words/phrases of 90% or greater in quiet and 80% or greater in noise (+5 dB S/N) per Functional Listening Evaluation or clinical speech perception in noise evaluation. Appropriate to use only when reverberation is at 0.6 seconds or less.
  - a. Bodkin, K., Madell, J., Rosenfeld, R. (1999). Word recognition in quiet and noise for normally developing children. AAA convention, Miami, FL. Poster session.
  - b. Howard, C., Munro, K., & Plack, C. (2011). Listening effort at signal-to-noise ratios that are typical of the school classroom. *International Journal of Audiology*, in press.
  - c. Crandell, C. , Smaldino, J. & Flexer, C. (2004). *Sound Field Amplification: Applications to Speech Perception and Classroom Acoustics* . Clifton Park, NY: Thomson.
5. Personal FM system if student has understanding of words/phrases of less than 90% in quiet and noise (+5 dB S/N).
  - a. Anderson, KL., Goldstein, H. (2004). Speech perception benefits of FM and infrared devices to children with hearing aids in a typical classroom. *Language, Speech, and Hearing Services in Schools* Vol.35 169-184.
  - b. Anderson, K., Goldstein, H., Colodzin, L., & Iglehart, F. (2005). Benefit of S/N Enhancing Devices to Speech Perception of Children Listening in a Typical Classroom with Hearing Aids or a Cochlear Implant. *Journal of Educational Audiology*(12)14-28.
  - c. Bodkin, K., Madell, J., Rosenfeld, R. (1999). Word recognition in quiet and noise for normally developing children. AAA convention, Miami, FL. Poster session.
6. Ensure that all video media are captioned [improve understanding of individuals who are deaf or hard of hearing] if used for instructional purposes; use FM transmitter near video speaker.
  - a. An Educator's Guide to Hearing Disability Issues: <http://education.illinois.edu/wp/access/hearing.html>
  - b. Closed Captioning: Not Just for the Hearing-Impaired:  
<http://www.history.org/history/teaching/newsletter/volume6/jan08/captioning.cfm>
  - c. Tips for Working with Deaf or Hard of Hearing Students in the Classroom:  
<http://www.theitinerantconnection.com/teachers.htm>
7. Ensure full access to computer audio by inputting FM transmitter into auxiliary access port.
  - a. An Educator's Guide to Hearing Disability Issues: <http://education.illinois.edu/wp/access/hearing.html>

- b. How to Improve Hearing Using Assistive Listening Devices: [http://www.ehow.com/how\\_5060481\\_improve-using-assistive-listening-devices.html](http://www.ehow.com/how_5060481_improve-using-assistive-listening-devices.html)
8. Ensure full access to school assemblies via use of FM transmitter, captioning, discussing expected content prior to the school assembly.
  - a. An Educator's Guide to Hearing Disability Issues: <http://education.illinois.edu/wp/access/hearing.html>
  - b. How to Improve Hearing Using Assistive Listening Devices: [http://www.ehow.com/how\\_5060481\\_improve-using-assistive-listening-devices.html](http://www.ehow.com/how_5060481_improve-using-assistive-listening-devices.html)
9. Ensure full access to daily school announcements via use of FM transmitter by loudspeaker or video speaker, writing relevant information on white board.
  - a. An Educator's Guide to Hearing Disability Issues: <http://education.illinois.edu/wp/access/hearing.html>
10. Teacher and student have a signal system to inform the teacher when difficulties in understanding occur.
  - a. Anderson, K., Smaldino, J. (1997). Appendix 6-B: Listening Inventory For Education: LIFE Teacher Appraisal and LIFE Student Appraisal. In *Educational Audiology Handbook*, by Johnson, Benson & Seaton. Singular Press, San Diego, CA. 387-390.
  - b. An Educator's Guide to Hearing Disability Issues: <http://education.illinois.edu/wp/access/hearing.html>
  - c. Tips for Working with Deaf of Hard of Hearing Students in the Classroom: [www.theitinerantconnection.com/teachers.htm](http://www.theitinerantconnection.com/teachers.htm)
11. Teacher faces student during all verbal instruction (write on the white board and then face class and instruct).
  - a. An Educator's Guide to Hearing Disability Issues: <http://education.illinois.edu/wp/access/hearing.html>
  - b. Tips for Working with Deaf of Hard of Hearing Students in the Classroom: <http://www.theitinerantconnection.com/teachers.htm>
12. Teacher encourages student to (1) close door if hallway noise is interfering with listening, (2) remind teacher if FM transmitter is not in use, (3) request use of FM in small group/social situations, (4) use communication repair requests for clarification to advocate for own understanding needs.
  - a. Martin, J., Huber-Marshall, L., & Maxcon, L. (1993) Transition policy: Infusing self determination and self-advocacy into transition programs. *Career Development for Exceptional Individuals*. 16(1), 56.
  - b. Pocock, A., Lambros, S., Karvonen, M., Test, D., Algozzine, B., Wood, W., et al., (2002) 'Successful strategies for promoting self-advocacy among students with Id: The LEAD Group.' *Intervention in School & Clinic*, 37, 209-216.
  - c. Self Advocacy Homepage: [www.uncc.edu/sdsp/self\\_advocacy.asp?filename+project\\_directory](http://www.uncc.edu/sdsp/self_advocacy.asp?filename+project_directory)
  - d. [Teaching Exceptional Children](#); Jul/Aug2010, Vol. 42 Issue 6, p22-29. Behavior management through self-advocacy.
  - e. Test, D.W., Fowler, C.H., Bremer, D. M., & Wood, W. M. (2005). A content and methodological review of self-advocacy intervention studies. *Exceptional Children*, 72, (1), 101-125.
13. Teacher writes page numbers, assignments and other important information on white board prior to its presentation or simultaneous to presenting the information.
14. Teacher routinely provides extra repetition of key, important, or new concept material beyond what most students in the classroom would require to understand the information.
  - a. McDermott, P. A., & Watkins, M. W. (1983). Computerized vs. Conventional Remedial Instruction for Learning-Disabled Pupils. *Journal of Special Education*, 17(1), 81-88.
15. Teacher explains idioms and multiple meaning words as they spontaneously occur in the classroom environment.
  - a. [http://www.readwritethink.org/files/resources/interactives/idioms/idiom\\_1.html](http://www.readwritethink.org/files/resources/interactives/idioms/idiom_1.html)
16. Use visual phonics support for access to early literacy instruction.
17. Ensure that student is able to effectively access use of audio books through hearing technology.
18. Repeat, restate, summarize comments during classroom discussion; pass FM or classroom sound distribution microphone for student use; call on students by name; allow only one person to speak at a time.

19. In small group or cooperative learning situations allow the student's group to use the FM transmitter and/or to move out of the classroom to a place without competing conversation (i.e., hallway, library).
20. Use buddy system for alerting student to changing activities, directions or for simple 1:1 repetition if student is not able to access 90% or more of verbal instruction while using appropriate hearing technology (K-3, with dependence decreasing as communication repair and self advocacy skills are integrated into student's communication).
21. Use notetaking or classroom instruction captioning if student is not able to access 90% or more of verbal instruction while using appropriate hearing technology (grade 4 and above).
  - a. How to Improve Hearing Using Assistive Listening Devices: [http://www.ehow.com/how\\_5060481\\_improve-using-assistive-listening-devices.html](http://www.ehow.com/how_5060481_improve-using-assistive-listening-devices.html)
22. Use oral interpreter to provide guidance, reinforce classroom directives, 1:1 support if student in not able to access 75-80% of verbal instruction while using appropriate hearing technology and provide opportunities for successful peer-to-peer communication (encourage communication repair, self advocacy, pragmatic social skills).
  - a. So Your Child has a Hearing Loss: Next Steps for Parents: <http://agbell.org/NetCommunity/Document.Doc?id=357>
23. Use sign language interpreter or cued speech transliterator to provide full access to classroom communication if student is not able to access at least 70-75% of verbal instruction while using appropriate hearing technology and provide opportunities for successful peer-to-peer communication (encourage communication repair, self advocacy, pragmatic socialization skills, sign/cue clubs).

## Communication Interaction

1. Exhibits stage four conversational skill development.
  - a. A. Stone, P. (1988). *Blueprint for Conversational Competence: A Planning/Instruction Model with Detailed Scenarios*, AG Bell Publications.
  - b. Johnson, C. (1997) Enhancing the conversational skills of children with hearing impairment, *Language, Speech, and Hearing Services in Schools*, 28, 137-145. <http://lshss.asha.org/cgi/content/abstract/28/2/137>
2. Uses effective communication repair skills when communication breakdown occurs due to not being understood or to not being able to understand the teacher, peers and others (direct teaching skills, role play, small group, classroom).
  - a. Kenworthy, O. *A Conversational Approach to Aural Rehabilitation*: [http://www.audiologyonline.com/articles/pf\\_article\\_detail.asp?article\\_id=355](http://www.audiologyonline.com/articles/pf_article_detail.asp?article_id=355)
3. Uses an assertive style of communication
  - a. Tye-Murray, N. (2009). *Foundations of Aural Rehabilitation: Children, Adults, and their Family Members*. Cengage Learning.
4. Understands and implements the rules of conversation
  - a. Lind, C. *Conversation Therapy: Principles and Clinical Practices*: [http://www.audiologyonline.com/articles/article\\_detail.asp?article\\_id=2344](http://www.audiologyonline.com/articles/article_detail.asp?article_id=2344)
5. Understands age-appropriate language related to directions.
6. Understands multiple meaning words typical of peers.
7. Understands idiomatic expressions typical of peers. <http://idioms.thefreedictionary.com/>
8. Is knowledgeable of the situations or conditions in which hearing problems can occur, what the effect is on functional listening and is prepared to advocate for full access to information in problematic situations.
9. Is able to respond appropriately and confidently if asked about hearing loss, hearing technology.
10. Listening in noise capability is improved via the systematic practice of hierarchy of auditory skills (i.e., auditory memory, auditory closure, auditory analysis, auditory blending, auditory figure ground, auditory tracking, comprehension).

## **Additional Supports**

- 1. Inservice to school staff regarding student listening abilities, communication and access needs.
- 2. Classroom observation in fall to identify access, communication and classroom management issues present in new classroom.
- 3. Monitor classroom function at least 2-3 times per year (October, January, May) (i.e., Screening Instrument For Targeting Educational Risk (SIFTER) for preschool, school-age, secondary).
- 4. Adult involvement in daily hearing technology listening check as appropriate to student age and level of independence.
- 5. Annual hearing evaluation to monitor change in hearing ability, speech perception or hearing technology needs.
- 6. Appropriate fitting of FM devices to ensure transparency and to identify optimal speech perception skills.
- 7. At least biannual electroacoustic evaluation of hearing aids to ensure appropriate function for perception of speech.
- 8. Student involvement in identifying school situations in which listening and understanding are difficult (administration of the Listening Inventory For Education (LIFE) Student Appraisal) beginning approximately age 8 and use this information to discuss effectiveness of access accommodations with teacher.
- 9. Supports for socialization success (i.e., attention to pragmatics, socialization skill teaching, informal social groups)
- 10. Linkage to other students with hearing loss (hearing aids, cochlear implants) for emotional support and interactive learning about topics relevant to being hearing impaired, especially if student is only individual in school using hearing technology. <http://hearstoyou.wetpaint.com/page/Resources+for+the+Itinerant+Teacher>