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Understanding Auditory Processing Disorders in Young Children

Jane Madell, PhD, CCC-A/SLP, LSLS Cert AVT

Moderated by:
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UNDERSTANDING AUDITORY PROCESSING DISORDERS IN YOUNG CHILDREN

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continued

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Financial Disclosures

- I have nothing to report

LEARNING OBJECTIVES

As a result of this continuing education activity, participants will be able to:

- identify the components of assessing auditory processing disorders.
- identify the roles of different professionals working with children with auditory processing disorders.
- describe components of a management program for children with auditory processing disorders.
Central Auditory Processing Disorders Defined:

- A breakdown in auditory abilities resulting in diminished learning (e.g. comprehension) through hearing, even though peripheral hearing sensitivity is normal.

Auditory processing disorders

- APD may lead to or be associated with difficulties in higher order language, learning, and communication functions.
- Although APD may coexist with other disorders (e.g., attention deficit hyperactivity disorder [ADHD], language impairment, and learning disability), it is not the result of these other disorders. (ASHA, 2005)
BRAIN PLASTICITY

- Systematic auditory stimulation or lack thereof affects the physiology of the auditory system.
  - History of otitis media?
- Fortunately, the brain is plastic
  - Plasticity depends on activity and stimulation
  - Intervention should begin as early as possible
- Some APD may be the result of delayed maturation and myelinization of auditory cortex
  - Myelinization begins at 1 year and is usually completed by 12-13 years
**PREVALENCE**

- 5% of school children
  - Chermak and Musieck, 1997
- 20% of school children
  - Katz, 2005
- 12%
  - DiMaggio and Geffner, 2003
- 50% of children with learning disabilities
- Co-morbidities (DiMaggio and Geffner, 2003)
  - 31% diagnosed with ADHD
  - 53% suspected of having ADHD
  - 83% speech and language disorders
  - 47% reading disorder
  - Lower comfort levels to loud sound by 8 dB (Geffner et al)
- Common history
  - Complications during pregnancy
  - History of otitis media (Rubin; Haggard et al; Gravel et al)

**Who Is Involved in Management**

- Evaluation and treatment should involve an interdisciplinary team
- APD frequently overlaps with other types of disorders
  - We must identify the other disorders
  - Must address functional listening deficits regardless of the etiology
  - Co-morbidity exists for all issues related to hearing
- Can be separate disorder and one that audiologists “owns”
- Can be a disorder with other components that requires multiple clinicians including SLP’s
The Team

- **Audiologist** – evaluation of APD; plan audiological management; classroom acoustics and FM
- **Speech-language pathologist** – diagnosis and management of APD
- **Educator** – Educational impact of APD. Classroom management
  - **Special educator**
- **Educational psychologist** – Neuropsychological evaluation of psychological, cognitive, educational issues. Counseling.
- **Administrator** – Recommendations for service, funding issues
- **Parents** – Understanding CAPD and supporting the child

Audiologist’s Definition

- Disagreement about whether it is purely central or part of a multimodality deficit, or more sensory modality specific auditory deficit
- Encompasses the entire auditory system
- Primary deficit is manifested in tasks that require the processing of acoustic information, to a lesser extent with other modalities
Speech Pathologist’s Definition

- Auditory processing includes both auditory and language components of the disorder. Central issues are significant.

Psychologist’s Definition

- A component of a specific learning disability
What We Know About Auditory Plasticity In Children

- The central auditory system is “…highly plastic in early childhood” (Cardon, Campbell, and Sharma, 2012)
- First year of life has the greatest plasticity of the cortex (e.g. success of early intervention)
- Because the cortex is highly plastic, intervention can produce positive outcomes
- Two important factors to consider
  - Timing of intervention
  - Type of input or stimulus to be used

- Insufficient stimulation of the auditory system during periods of plasticity can cause abnormalities of the auditory cortex (Sharma et al.)
- Question — What happens to the unused auditory system? Does it lose the ability to function normally and mature? (Gordon et al, 2011)
- Children who lack stimulation of the auditory system due to peripheral hearing loss demonstrate negative cortical changes (Gordon et al, 2011).
Behaviors Associated With APD

- Poor listening skills
- Difficulty learning through auditory modality
- Difficulty following auditory instructions
- Short-term memory span deficiencies
- Difficulty understanding in the presence of background noise
- Frequently asking “What?” or “Huh?”
- Frequent requests for repetition
- Misunderstanding what is said or “mishearing” the word or message

Behaviors Associated With APD

- Difficulty understanding speech when it is muffled or distorted
- Poor auditory attention
- Fatigue when listening
- Easily distracted, especially in noisy situations
- Deficits of auditory integration for sound blending, auditory closure, phonologic awareness, and phonetic skills
- Weak auditory memory
Behaviors Associated With APD

- Delayed response or slow speed of response to verbal stimuli
- Poor speech recognition in noise
- Reduced tolerance or sensitivity to loud noise
- Heightened sensitivity or better than normal thresholds to sound
- Problems understanding rapid speech
- Problems with spelling, reading, academics

Early Childhood Indicators

- Poor rhyming skills
- Inability to follow songs and melodies
- Inattention to speaker
- Ignoring speaker when engaged in other activities
- Sensitivity to sound or noise
- Difficulty with complex directions
- Difficulty formulating sentences
- Searching for words
- Trouble remembering simple commands
- Difficulty hearing in noise
### Red Flags

- Problems attending in class, daydreams
- Problems learning foreign language
- Better learning through visual channel
- Cannot write through dictation
- Mishears words
- Does not participate in class discussion
- Misunderstands homework
- Fails to follow directions
- Poor note taker
- Difficulty tolerating noisy rooms, cafeteria, gym
- Trouble understanding stories read out loud
- Does not get salient points or relevant facts
- Trouble with directions embedded in other information
- Trouble with math word problems
- Delayed responses to questions

### ADHD vs APD vs LANGUAGE DISORDER

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ADHD

- A neurobehavioral disorder
- Defined by behavioral symptoms of
  - Inattention
  - Impulsivity
  - Hyperactivity
- Changing definition and symptom patterns
- No definitive cause
- No certain or specific pathways

ADHD Assessment

- Psychology, psychiatry and pediatrics
- Assessed using rating scales
- Neuropsychological assessments include learning, and memory
### APD vs ADHD

<table>
<thead>
<tr>
<th>APD</th>
<th>ADHD - Hyperactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty hearing in noise</td>
<td>Inattentive</td>
</tr>
<tr>
<td>Difficulty following directions</td>
<td>Distracted</td>
</tr>
<tr>
<td>Poor listening skills</td>
<td>Hyperactive</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>Fidgety/restless</td>
</tr>
<tr>
<td>Poor auditory association</td>
<td>Hasty/impulsive</td>
</tr>
<tr>
<td>Input disorder</td>
<td>Interruptive/intrusive</td>
</tr>
<tr>
<td>Executive function disorder (secondary)</td>
<td>Output disorder</td>
</tr>
<tr>
<td>Mishears words</td>
<td>Blurts out answers</td>
</tr>
<tr>
<td>Attention deficits (secondary)</td>
<td>Management includes meds</td>
</tr>
</tbody>
</table>

### APD vs ADHD

<table>
<thead>
<tr>
<th>APD</th>
<th>ADHD - inattentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty hearing in noise</td>
<td>Inattentive to details or makes careless mistakes</td>
</tr>
<tr>
<td>Difficulty following directions</td>
<td>Difficulty sustaining attention in tasks or play</td>
</tr>
<tr>
<td>Poor listening skills</td>
<td>Does not seem to listen when spoken to directly</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>Does not follow through: fails to finish tasks</td>
</tr>
<tr>
<td>Poor auditory association</td>
<td>Avoids tasks that require sustained mental effort</td>
</tr>
<tr>
<td>Input disorder</td>
<td>Loses things necessary for tasks or activities</td>
</tr>
<tr>
<td>Executive function disorder (secondary)</td>
<td>Easily distracted by extraneous stimuli</td>
</tr>
<tr>
<td>Mishears words</td>
<td>Forgetful in daily activities</td>
</tr>
</tbody>
</table>
### APD vs. LANGUAGE PROCESSING

<table>
<thead>
<tr>
<th>APD</th>
<th>Language Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty hearing in noise</td>
<td>Difficulty getting to the point</td>
</tr>
<tr>
<td>Difficulty following directions</td>
<td>Difficulty organizing and expressing thoughts</td>
</tr>
<tr>
<td>Poor listening skills</td>
<td>Difficulty getting started with open-ended questions</td>
</tr>
<tr>
<td>Academic difficulties</td>
<td>Uses vague language</td>
</tr>
<tr>
<td>Poor auditory association</td>
<td>Difficulty knowing what to say</td>
</tr>
<tr>
<td>Input disorder</td>
<td>Difficulty reading and responding to social cues</td>
</tr>
<tr>
<td>Executive function disorder (secondary)</td>
<td>Word-finding difficulties</td>
</tr>
<tr>
<td>Mishears words</td>
<td>Difficulty remembering lengthy directions</td>
</tr>
<tr>
<td>Attention deficits (secondary)</td>
<td>Pronounced differences between performance and verbal abilities</td>
</tr>
</tbody>
</table>

![Venn Diagram](image-url)
**LANGUAGE VS AUDITORY PROCESSING**

<table>
<thead>
<tr>
<th></th>
<th>Language</th>
<th>APD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you hear it?</td>
<td>Yes</td>
<td>?</td>
</tr>
<tr>
<td>Can you repeat it?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Can you identify the first sound? Another sound?</td>
<td>?</td>
<td>No</td>
</tr>
<tr>
<td>Will saying it slower help?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Will repeating it multiple times help?</td>
<td>?</td>
<td>Yes</td>
</tr>
<tr>
<td>Will saying it louder help?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**APD AND LITERACY**

- 34% of 12th graders meet the standard of reading proficiency
- Children with normal hearing and intelligence acquire language through exposure.
  - Reading must be learned
- Reading research – factors are acoustic, memory, language functioning, phonologic components of language
- Reading is language based, and language is auditory based
- 50% of children diagnosed with language disorders scored <25% in reading and 56% were deficient in spelling (Aram, Ekelman and Nation, 1984)
EVALUATION OF APD

Who Needs An APD Evaluation?

- Problems observed in classroom
- Delayed language
- Checklists indicate problems
- Screening indicate problems
- Difficulty in noise vs quiet
- Verbal IQ lower than performance IQ
- Receptive language lower than expressive language
- Diagnose will likely change management
When To Test

- Most audiologists do not assess APD until age 7; often not identified until much older than that
  - Parental concern often much younger
  - Should we be evaluating auditory processing issues earlier?
    - Need for evidence based testing and treatment that incorporates information about neural plasticity

- Testing preschool children
  - Child needs to be able to repeat words or point to pictures
  - Repeat words at
    - Normal conversational levels in quiet
    - Soft conversational levels in quiet
    - Normal conversational levels in competing noise
  - Typically developing children can hear well in all conditions (80% or better)
### QUESTIONAIRRES

1. **Screening Instrument For Targeting Educational Risk (SIFTER)**
   (Anderson, 1989) Norm-referenced checklist comparing teachers’ perceptions of classroom function for elementary-aged students with and without hearing loss. For example “How distractible is the student compared to his or her peers.”

2. **Preschool Screening Instrument For Targeting Educational Risk (Preschool SIFTER)**
   (Anderson, 2004) Norm-referenced checklist comparing teacher’s perceptions of classroom function for preschool-aged students with and without hearing loss. For example “How well does the child understand basic concepts when compared to classmates?”

3. **Secondary Screening Instrument For Targeting Educational Risk (Secondary SIFTER)**
   (Anderson, 2004) Norm-referenced checklist comparing teachers’ perceptions of classroom function for secondary-aged students with and without hearing loss. For example: “How does the Student’s general foundation skills (i.e. reading level) compare to the difficulty of work expected in class?”

### QUESTIONAIRRES (2)

4. **Listening Inventory For Education – Revised (LIFE)**
   (Anderson and Smaldino, 1998) Student self-rates ability to hear and understand in each of 15 listening situations. A separate form allows the teacher to evaluate listening difficulty. Sections include Classroom listening situations and situations outside the classroom.

5. **Children’s Auditory Performance Scale (CHAPS)**
   (Smoski, Brun and Tunnahill, 1998) An judgment of student attention in 6 listening conditions resulting in a score of normal or at-risk. Ages 5+.

6. **FM Listening Evaluation**
   (Johnson, 2012) This rating scale can be complete by a parent, teacher, an audiologist or other clinician working with the child. It rates distance at which a child can hear a variety of different stimuli in a variety of different conditions. For example “Student responds to his name when spoken to in quiet at 3 feet, 10 feet; in noise at 3 feet, 10 feet etc.”

7. **Fisher’s Auditory Problems Checklist**
Screening Tests for Young Children

- SCAN – 3
  - Screening portion
- Auditory Skills Assessment - Geffner and Goldman (2010)

SCAN 3 – Screening Portion

- Competing words
  - Dichotic testing assessing binaural integration
- Auditory figure ground – speech in noise
- Gap detection – temporal processing
AUDITORY SKILLS ASSESSMENT
Geffner and Goldman, 2010
Pearson, Inc.

- Ages 3:6 to 6:11 yrs
- Training items – live voice picture pointing
  - Other test items recorded
- Discrimination – selects one of 4 items
- Mimicry – child repeats nonsense syllables
  - Eg vu, fip, hogbot
- Blending
  - Eg b…ee; r…ed
- Rhyming (age 5-6:11)
  - Do these words rhyme? Can-man; toe – man
- Tonal discrimination (5-6:11)
  - Plays piano and oboe – are they the same?
  - Which was played last

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DIAGNOSTIC TESTING
Test Battery

- History
- Questionnaires
- Audiologic test battery
- Speech-language evaluation
- Classroom observation

History

- Birth history
- Health history including otologic and neurologic
- Medications
- Family history of hearing, auditory processing, and language concerns
- Speech-language development; current receptive and expressive language levels
  - In English, and in primary language
- Auditory and communicative difficulties
- Educational history
- Social development
- Previous therapy
- Primary language (tests are in English)
Selecting Test Measures

- What is chief complaint?
- Measure different central processes
- Include verbal and non-verbal stimuli
- Age appropriate measures
  - Linguistically appropriate

Protocols For Younger Children

- SCAN – 3 standardized for children 5 and up (Keith, 2009)
- SSW – standardized for children 5 and up (Katz, 1962)
- Pediatric Speech Intelligibility Test (Jerger and Jerger, 1984)
- Speech in competing noise (Madell, Bodkin, Weigand, 1998)
- Auditory Skills Assessment (Geffner and Goldman, 2010)
Protocols for Older Children

- Scan C
- SSW
- Dichotic Digits
- Phonemic Synthesis
- Gap detection

Testing For APD
Audiologist’s Role

- Testing should be performed by audiologists trained in APD testing
- Requires a sound booth with controlled auditory environment
- Participate in multidisciplinary teams for evaluation and intervention
- Goals of evaluation
  - Identify presence of abnormalities or dysfunction of the CANS and diagnose APD
  - Describe type and extent of the disorder
  - Assist in developing management and intervention programs
Testing For APD:
Speech-language Pathologist’s Role

- Evaluation
  - Thorough history
- Behavioral survey/Classroom observation
  - Attending and focusing during auditory tasks
  - Requests for repetition
  - Misinterpretation of what is said
  - Lack of response to name called
  - Processing in quiet and noise
  - Learns poorly through lecture-teaching style
  - Easily distracted by noise
  - Sensitivity to loud sounds

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Areas To Be Tested

- Auditory processing and discrimination
- Receptive vocabulary
- Auditory memory
- Phonemic awareness
- Auditory closure
- Auditory comprehension/cohesion
- Expressive vocabulary
- Word retrieval
- Speech perception under degraded conditions

INTERPRETING TEST RESULTS
Interpreting Test Results

- Test results are merely observations of performance at a given moment in time
- They do not reveal why a child performed that way
- Other disorders may affect test scores
  - Auditory discrimination problems can interfere with responses in an auditory memory test
  - Slow processing
  - Vocabulary
  - Hearing
- State – tired, hungry, distressed

Key Points Diagnosis

- Diagnosis requires a team approach
- Audiological evaluation is essential to an APD diagnosis
- Multiple aspects of auditory processing must be tested during the evaluation process.
- APD, ADHD, and Language disorders have many overlapping symptoms but are distinct disorders and require different remediation
MANAGEMENT
or what do we do now?

We Have Treated APD For Years

- Aural habilitation/rehabilitation
- Auditory processing disorders are on the continuum of functional listening disorders that are defined by the term “hearing loss” or “auditory disorders”
- Children with APD function like children with HL but do not have the benefit of hearing aids
What works

- Building auditory skills
- Build compensatory strategies
- Improve the acoustic environment
- Direct intervention of identified areas of weakness
- Use of remote microphones

Therapy For Auditory Processing Disorders

- Enhancing the acoustic signal
  - Improving the listening environment
- Teaching the child compensatory strategies
  - Requesting strategic seating
  - Request repetition or rephrasing
  - Asking to reduce background noise
- Remediation activities
  - Direct remediation (bottom-up therapy) can change auditory behavior
  - Top-down therapy metalinguistic and metacognitive skills specifically taught can minimize impact of processing disorder
    - (ASHA 2005)
Top Down – Bottom Up

- Bottom up processing
  - Auditory training
  - Signal enhancement
  - Environmental modifications
- Top down processing
  - Language strategies
  - Cognitive strategies
  - Metacognitive strategies
  - Classroom, instructional and learning strategies
  - Workplace, recreational, and home accommodations

MANAGEMENT OF PRESCHOOLERS

- Not technically diagnosed
- Concern if child demonstrates
  - Word-finding difficulties
  - Cluttering disorders
  - Poor recall of repetitive, rote memory activities (songs, rhymes)
- History of older children with APD shows significant history of above problems
PRESCHOOL THERAPY

- Finding target sound or word
  - Ask child to listen for a word when reading
- Localization games
- Walking and listening
  - For sounds
- Following directives
- Interhemispheric processing
  - Name that tune
  - Feel for items in a bag
- Listening to rhymes
- Musical chairs

THERAPY FOR SCHOOL AGE KIDS

- Direct intervention for areas of weakness even if total score is “normal”
- Quieting the classroom
- Strategic seating
- Use of remote microphones
- Preview and review of academic materials
BEING AN EFFECTIVE MODEL

- **Clear speech** – reduced rate, increased volume
- **Visual cues** – look and listen; look than listen; listen than look
- **Clear language** – rephrase, expand (don’t just say “Stop!”, say what you want child to “stop”, be exact in what you are saying,
  - “did you do what I asked you to do?” vs “did you do your homework and mow the lawn?”
- **Familiarity** with material

MANAGING THE ENVIRONMENT

- 60% of classroom activities involve listening *(ANSI, 2002)*
- **Background noise**
  - In room noise
    - Children, computers, HVAC)
  - Outside room noise
    - Hallways, bathrooms, street traffic
- **Signal/Noise ratio** *(Crandell&Smaldino, 2002)*
  - Normal hearing – 0 dB/SNR
  - APD – requires at least 2-15 dB SNR
- **Reverberation** – (echo) *(RT)*
  - Adults – not adverse until RT exceeds 1.0/second
  - Children with HL, Language, processing adverse 0.4 sec *(Crandell, Smaldino, Flexer, 1995)*
IMPACT OF POOR ACOUSTICS

- Reduced speech perception
- Mishearing
- Spelling errors
- Reduced academic achievement
- Decreased attention
- Decrease in reading ability
- Increase in poor psychosocial behavior

MANAGING NOISE

- Goal – to maintain SNR of at least +15 and RT 0.4 seconds or less (ASHA, 2005)
- Classrooms/home
  - Eliminate open classrooms
  - Move classrooms away from gym, cafeteria, playground
  - Double paned windows
  - Noise dampening HVAC
  - Eliminate fluorescent lights
  - Lowered ceilings
  - Close windows/doors
  - Carpeting
  - Acoustic tiles, cork boards
  - Bookcases with spaces to create baffle
  - Felt pads, rubber caps on chair and table legs
- FM
DISTANCE FROM NOISE SOURCE

- Strategic seating
  - School
    - Back of room – mostly reverberant sound
    - Front of room – mostly direct sound
    - Move as needed to be near talker
    - Avoid back-lit speaker
  - Home
    - Don’t talk from another room
    - Move as needed to be near talker
    - Avoid back-lit speaker

- Turn off competing noise
  - Use remote microphone

Remote Microphone SYSTEMS
ASSISTIVE TECHNOLOGY
FM SYSTEMS

- What is an RM system?
  - Wireless technology to transmit signal through radio waves

- Why RM?
  - Improve ability to hear in background noise and distance
  - Improves attention to auditory stimuli
  - Classrooms are noisy

NORMAL HEARING CHILDREN AND ADULTS

<table>
<thead>
<tr>
<th></th>
<th>WORD RECOGNITION AT CLOSE IN QUIET</th>
<th>WORD RECOGNITION AT DISTANCE IN NOISE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.8 meters</td>
<td>7 meters</td>
</tr>
<tr>
<td>4 yrs old</td>
<td>88.3%</td>
<td>67%</td>
</tr>
<tr>
<td>5 yrs old</td>
<td>94.3%</td>
<td>84%</td>
</tr>
<tr>
<td>6 yrs old</td>
<td>98%</td>
<td>86.7%</td>
</tr>
<tr>
<td>Adult</td>
<td>99.3%</td>
<td>97%</td>
</tr>
</tbody>
</table>
Auditory Processing Disorders
Cook Children’s Hospital

All children are at a disadvantage when listening to a distant speaker or in background noise.

HI and APD children have an even greater disadvantage in these environments.

RM overcomes the factors of background noise and distance from sound source.

HOW DO YOU KNOW IF A CHILD NEEDS A RM SYSTEM?

- Poor speech in noise
  - Mishears words
  - Needs repetition
- Poor auditory attention
- Support available in the school to monitor and manage equipment
- Child able to use RM without feeling stigmatized
- Assistance to help classroom teacher use system appropriately
- RM compatible with other equipment in the classroom
- Include RM on IFSEP
WHEN SHOULD RM BE USED?

- New academic material
- Phonics activities
- To compensate for inability to hear in noisy situations
  - Should always be used with auditory figure-ground therapy
- Not for non-academic subjects
- Not for individual therapy in a quiet room
- Periods of non-use each day to practice “real-life” listening
- NEVER WITHOUT APD EVAL

MONITORING THE RM

- What is daily monitoring?
- Who is doing daily monitoring
- Who is troubleshooting
- Who gets FM repaired
  - Who sends it for summer cleanup
  - Who gets new batteries
- Daily listening check
  - Don’t ask “did you hear that”
  - Ask specifics
    - Ling sounds
    - Specific questions
    - Single words/short phrases

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THE IFSP

What needs to be included

- Classroom acoustic accommodations
  - Quiet classroom
  - Strategic seating
  - FM
    - Monitoring by educational audiologist
    - Carpeting in the block corner
- Academic accommodations
  - Test accommodations
    - Time, separate room
    - Preview, review
- Speech-language-auditory therapy
- Specific therapy recommendations
- Annual audiological/APD evaluation
IEP vs 504

- With IEP we monitor goals
- With 504’s there is less monitoring

CLASSROOM NOISE ACCOMMODATIONS

- Quiet classroom
- No open classrooms
- Select a classroom away from lunchroom, toilets, playground to reduce noise
- Carpeting in noisy places like the block corner
- Acoustic tiles on walls and ceilings as possible
- Tennis balls or hush-ups on chair and table legs to reduce noise
- Monitor noise from heating and ventilation system and repair as needed
Teaching Accommodations

These accommodations can make a significant difference in a child’s success.

- Work to keep the classroom quiet to facilitate listening and learning for all children.
- Teacher’s rate, pitch, articulation make speech easy to understand.
- Teacher faces student when speaking to facilitate receiving information.
- The classroom should encourage verbal communication with the opportunity for children to speak with each other.
- Repeat comments of other students into the RM microphone to be sure the student with hearing loss hears them.
  - Use pass mic to allow each student in the classroom to speak for herself.

Call the student by name to be sure she know you are talking to her.

- Confirm that the child hears and understands by asking questions (not “did you hear that?” or “do you understand?”).
- Reword, rather than repeat, if the message is not understood.
- Encourage the student to ask for clarification when information is not clear.
- Call the student by name to be sure she know you are talking to her.
- Confirm that the child hears and understands by asking questions (not “did you hear that?” or “do you understand?”).
- Reword, rather than repeat, if the message is not understood.
- Encourage the student to ask for clarification when information is not clear.

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THANK YOU FOR LISTENING