



Supporting **Students** with **Auditory Processing** **Disorder (APD)** in the Classroom

A GUIDE FOR EDUCATORS

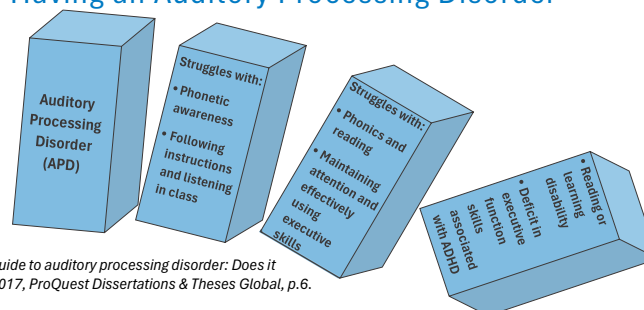
WHAT IS APD? HOW DOES IT AFFECT A STUDENT'S LEARNING EXPERIENCE?

As an educator, we know that you care deeply about your students and their success. That's why we want to share with you some important information about Auditory Processing or APD. Hearing is a complex process that involves two important steps: detecting sound vibrations (peripheral hearing) and converting them into meaningful information (functional hearing). APD presents if functional hearing (comprehension at the level of the brain) doesn't 'work properly.'

Students with APD may struggle with distinguishing sounds, detecting pitch, volume, and timing changes, and perceiving speech in background noise. These difficulties can make it challenging for them to understand verbal instructions during lessons and can ultimately impact their academic success. We understand that it can be frustrating for both you and your student when this happens, but it's important to recognize that they may be doing their best despite the challenges they face.

It is also important to understand that noise can make students with APD feel tired, making it difficult for them to complete tasks requiring language skills, memory retention, and focused attention. As educators, we know that you want your students to succeed, and we want to help you provide the appropriate support and guidance to help them reach their full potential. If you notice a student with APD appearing uninterested or disengaged, please don't assume they are unwilling to participate. Instead, they may struggle to process and organize information in their brain, making it difficult to join in typical classroom activities. By being understanding of their unique circumstances, you can help them thrive and succeed academically. See the figure below for a representation of how auditory processing difficulties can lead to learning and attention issues through a domino effect.

Figure 1. Domino Effect of Having an Auditory Processing Disorder



Note. Reprinted from "A research-based educator's guide to auditory processing disorder: Does it improve teachers' confidence?", by Fletcher, D. M., 2017, ProQuest Dissertations & Theses Global, p.6.

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WHAT CAN I DO?

There are two different approaches to interventions for students with auditory processing disorder (APD):

- Bottom-up interventions focus on improving access to the auditory signal in a variety of ways: one-on-one intervention, phoneme segmentation and blending as well as auditory discrimination tasks to name a few. These are often set up as specific goals by an overseeing Audiologist.
- Top-down interventions involve modifying instructional and communicative practices and are more accessible for educators to implement in an inclusive classroom design.

Incorporating interventions allows students to benefit, regardless of their severity, challenges or diagnoses.

ENVIRONMENTAL ADAPTATION STRATEGIES

STRATEGY #1

Classroom Noise

- It's understandable that there will be some noise in a classroom setting, but it's important to be mindful of the sources of noise and try to reduce them as much as possible.
- You can keep doors and windows closed to reduce outdoor noise and be aware of other sources of noise, such as vents, speakers, or ticking clocks.
- When there is a lot of noise, it can be tough for students to concentrate on the teacher's voice, which is the most important sound.

STRATEGY #3

Seat Location

- To help them hear and understand you better, it's best if they sit close to the front, at an angle of less than 45 degrees, and not too far away where they can still see and hear you.
- Keep in mind they don't need to be in the front row, choose a seat that's not distracting, and they feel comfortable in!

STRATEGY #2

Use of Technology

- These devices can significantly enhance speech clarity for students, particularly when it comes to the teacher's voice in noisy environments.
- Depending on the type of system, it can transmit the signal directly to the student's ears and sometimes eliminate other noises to enhance concentration.

STRATEGY #4

Distractions

- It can be challenging for students to stay focused when there are outside distractions, such as noise or people walking in and out of the classroom.
- Consider using preventative measures like door signs that state 'Class in session/Exam in progress' to minimize outside noise or walk-ins.
- This can help create a more peaceful and distraction-free environment for your students.



COMPENSATORY STRATEGIES

STRATEGY #1

Material Preparation

- Provide students with written materials that contain new vocabulary before class.
- This way, they can review new concepts and spend less time trying to understand their meanings during the lesson.

STRATEGY #3

Visual Aids

- Incorporating visual aids with auditory information can help sustain students' attention in class.
- Consider using various visual resources such as photos, graphs, videos, diagrams, tables, and pictograms to achieve this.

STRATEGY #5

Linguistic Modifications

- When introducing new material, jot down the keywords related to it.
- Repeat the same points multiple times when discussing a new topic, sometimes rephrasing them, while also paying close attention to the tone/intonation of the message to keep students engaged.
- Use words like first, second, then, and last when giving instructions to help your students understand the sequence of steps they need to follow.

STRATEGY #7

Preface Information

- Use phrases like:
 - "This is going to be important,"
 - "Here is what you need to know," or
 - "Listen up!" when sharing important information with your students.
- This helps to ensure that they are focused and ready to learn.

STRATEGY #9

Communication Log

- Consider using an online communication log or a communication book that travels to school, home, and back with the student.

STRATEGY #2

Lesson Planning

- To prevent students from feeling fatigued during sessions, alternate between more challenging and less challenging material.
- Additionally, if it is possible, schedule any language classes for the morning where alertness is increased.

STRATEGY #4

Clear Speech

- Speak at an appropriate pace during the lesson. If you speak too quickly, it may be difficult for students to understand you, and speaking too quietly can make it hard to hear.
- Vary your voice level to keep your students interested. Also, emphasize important information by changing your tone and repeating it.
- Using natural gestures to highlight what you're saying can be helpful, but be careful not to use too many, as it can distract your students.

STRATEGY #6

Check-In

- To ensure your students understand the subject being taught, ask them to recall what they have learned and confirm their understanding. Consider asking questions like:
 - "How would you explain ____ in your own words?"
 - "What are some examples of ____?"
 - "What do you think might happen if ____?"

STRATEGY #8

Session Planning

- When creating instructions, use clear and simple writing that's easy to read. This means using a basic font and keeping your language short and easy to understand.
- It's also a good idea to provide students with copies of notes or arrange for someone else to take notes for them. This way, they can concentrate on the material you're teaching without worrying about taking notes.

- Inform the caregiver of what the child struggled with in class so that these concepts can be revisited at home.
- The goal is to provide more opportunities to engage with content and reinforce learning.

SOCIAL ENVIRONMENT STRATEGIES

STRATEGY #1

Model Communication

- Introduce strategies to enhance communication repair across different contexts. Provide real-life examples or create role-play activities to practice with little ones. Some ideas include:
 - *Encourage students to ask for clarification when they don't understand something. Using phrases like "Can you repeat that?" or "Could you go over that again?" can be helpful.*
 - *Teach them how to rephrase a message in different words to ensure they understand the information correctly. This can be easily modeled with storybooks.*
 - *Show them how to summarize the main points of a conversation.*
 - *Teach them how to use non-verbal cues to confirm their understanding.*

STRATEGY #3

Boost Self-Esteem

- This is crucial because when students feel good about themselves, they are more likely to be motivated to learn.
- To achieve this, praise their efforts, encourage peer support and a growth mindset by saying:
 - *"I noticed how hard you worked on _____. Your dedication shows*
 - *"You did a fantastic job on that project! Let's acknowledge _____'s hard work."*
 - *"Remember, you can improve with practice! Don't worry if you made a mistake!"*

STRATEGY #5

Promote Organizational Skills

- Scaffolding is an effective approach to improve these skills.
- Encourage the use of an agency and model the use of daily tools like visual aids (calendars and schedules), graphic organizers (mind maps, flowcharts, concept maps), checklists, and to-do lists to keep track of their responsibilities.

STRATEGY #2

Group Instruction

- Incorporate smaller group instructions to reduce distractions and allow for closer proximity to groups. Here are some tips to make this transition smoother:
 - *Clearly explain what is expected from each group member, using both written and visual instructions.*
 - *Allow extra time for processing information and answering questions.*
 - *Encourage group members to support and work with each other. Pairing students together can promote collaboration and adapting strategies to real-world settings.*

STRATEGY #4

Teach Self-Advocacy

- Encourage open communication to build self-advocacy skills by:
 - *Teach the class that it's important to let others know when you are having difficulty understanding.*
 - *Provide examples of phrases they can say: "You can say, 'I'm having trouble understanding, can you repeat that?'" or, "I learn better when I see instructions, can you write them down?"*
 - *Engage in conversations about creating a safe space where students feel comfortable requesting accommodations, such as noise-cancelling headphones or a change of location, to help them complete tasks or take tests. "Remember, you can improve with practice! Don't worry if you made a mistake!"*



HOW CAN I COLLABORATE WITH OTHERS TO PROVIDE ADDITIONAL SUPPORT?

It's important to tailor strategies to individual student needs by recognizing other professionals who can be involved in the care of students with APD.

- **Audiologist:**
Can assess the child's hearing abilities and identify specific deficits that can impact their learning. Also, they can recommend further technology like hearing aids to diminish the challenges that come along with APD.
- **Speech-Language Pathologist:**
Can provide individualized auditory training, language comprehension exercises, and meta-cognitive strategies to support student's communication and learning needs.
- **Educational Psychologist:**
Can assess the student's learning profile and provide more unique adaptation strategies.
- **Occupational Therapist:**
Can assist with sensorial processing concerns that arise in students with APD.
- **Caregivers:**
You can obtain information about the child's experience at home and strategies being used to reinforce a seamless approach.
- **School Counselor:**
Can offer mental health services to the student and strategies to cope with emotional responses.
- **Assistive Technology Specialist:**
Can recommend and troubleshoot any technical tools that can be implemented in the classroom.
- **Educational Team:**
You can collaborate with other educators, specialists and school support staff to develop a unique IEP that fits the student's needs. You don't need to apply all the strategies at once – that can be overwhelming! Instead, take it one step at a time and try out different methods to see what works best for you and your students. Keep in mind that what works for one student may not work for another, so embrace the challenge and enjoy the journey.

Feel free to visit the HearSay parent support group that provides insight, tips and information about auditory processing disorder, assessment and treatment methods across Canada.



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References:

- Agrawal, D., Dritsakis, G., Mahon, M., Mountjoy, A., & Bamiou, D. E. (2021). Experiences of patients with auditory processing disorder in getting support in health, education, and work settings: Findings from an online survey. *Frontiers in neurology*, 12, 607907.
- Almusawi, H. M., & Hamadah, L. N. (2023). Theoretical and Practical Knowledge of Central Auditory Processing Disorder among Primary School Teachers. *Jordan Journal of Educational Sciences*, 19(2), 521-539.
- American Speech-Language-Hearing Association. (2023). *Central Auditory Processing Disorder*. (Practice Portal). Retrieved from www.asha.org/Practice-Portal/Clinical-Topics/Central-Auditory-Processing-Disorder/.
- Assessment and Management of Children with Auditory Processing. (2012). In *Canadian Guideline of Auditory Processing Disorder in Children and Adults: Assessment and Intervention*. (pp. 17-32). The Canadian Interorganizational Steering Group for Speech-Language Pathology and Audiology.
- Bellis, T. J., & Anzalone, A. M. (2008). Intervention approaches for individuals with (central) auditory processing disorder. *Contemporary Issues in Communication Science and Disorders*, 35, 143-153.
- Belote, M. *Central Auditory Processing Disorder: The Hearing Equivalent of CVI Risk Factors, Features, and Strategies*.
- Chermak, G. D., & Musiek, F. E. (Eds.). (2013). *Handbook of central auditory processing disorder, volume II: Comprehensive intervention* (Vol. 2). Plural Publishing.
- Fletcher, D. M. (2017). *A research-based educator's guide to auditory processing disorder: Does it improve teachers' confidence?* (Order No. 29244784). Available from ProQuest Dissertations & Theses Global. (2714864803). Retrieved from <http://libaccess.mcmaster.ca/login?url=https://www.proquest.com/dissertations-theses/research-based-educators-guide-auditory/docview/2714864803/se-2>
- Kruczyńska-Werner, A. (2018). *The role of family and school environment in therapy of children with central auditory processing disorder*. *Logopedia*, 47(2), 313-328
- Yalçinkaya, F., & Keith, R. (2008). Understanding auditory processing disorders. *Turkish Journal of Pediatrics*, 50(2), 101-105.

Handout Created by: Jennifer Colton and Gabriela Lopera. McMaster SLP Students, HearSay Clinical Placement October 2023.
Supervision and revisions by Yvonne M. Oliveira, Speech-Language Pathologist & Audiologist, HearSay Speech & Hearing Centre.

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