

Data-Driven Decision-Making for the Use of Assistive Listening Technology



Maureen DiSalvo, M.A./CCC-SLP, M.S. Ed
Nancy Simison, M.E.D.
Dianne Nelson, M.E.D.
Lori Glass, M.A./CCC-SLP
Barbara Eddy, M.E.D.
South Windsor Public Schools, South Windsor, CT

Poster Session Overview

This poster presents a two-tiered protocol which responds to audiological recommendations for the use of assistive listening technology for populations of students with diagnosed auditory disorders as well as for students with other diagnoses.

The poster will focus on classroom listening behavior rating scales which serve as pre and post trial data for assessing the efficacy of listening technology.

Case studies for each tier of the protocol will be provided.

Learner Outcomes

- ❖ To describe the necessity of using data for decision-making regarding classroom assistive listening technology
- ❖ To develop a protocol for assessing the efficacy of using classroom listening technology
- ❖ To implement the use of classroom listening behavior rating scales



Developing a Protocol: Why Now?



- ❖ New research showing benefits of using personal assistive listening technology with ADD, autism and language disabled populations
- ❖ Referrals to district for personal FM use in these populations
- ❖ District's need to analyze student needs on a criterion-referenced, individualized measure

Protocol for Student Access to Assistive Listening Technology

Tier One: District-Initiated APD Evaluation

- Obtain Medical Clearance
- Complete Pre-Trial Listening Behavior Rating Scale (classroom teacher, student, related service)
- Put classroom modifications in place
- Conduct 30-45 Day Trial with Personal FM Equipment

Tier One Protocol

Post Assistive Listening Technology Trial:

- Complete Post-Trial Listening Behavior Rating Scale
- Discuss Results at IEP Meeting
- Submit Rating Scale each year at student's annual review to document efficacy



Protocol for Student Access to Assistive Listening Technology

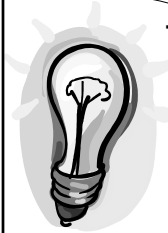
Tier Two: Parent-Initiated Evaluation

- Complete listening behavior scales (classroom teacher, student, related service)
- Schedule IEP meeting to review evaluation: include SPED administration and district audiologist if necessary. Offer 2nd evaluation if diagnosis seems unclear
- Offer trial period of personal FM equipment

Tier Two Protocol

Post IEP Meeting:

- Receive medical clearance
- Put classroom modifications into place
- Conduct 30-45 Day Trial with Personal FM Equipment
- Complete Post-Trial Listening Behavior Rating Scale
- Discuss Results at IEP Meeting



Classroom Listening Behavior Rating Scales

- ❖ Scored Format for Easy Comparison
- ❖ Used Pre and Post Amplification Trial
- ❖ Multiple Staff Evaluate Student
- ❖ Student Self-Evaluation Component



Classroom Accommodations for APD, ADD and D/HH Students

- ❖ reduce speaking rate
- ❖ repeat &/or rephrase auditory information
- ❖ say names first when calling on students
- ❖ paraphrase other students' comments
- ❖ post directions & assignments
- ❖ check for understanding of directions



Classroom Accommodations

- ❖ review test questions
- ❖ allow extra time
- ❖ present in writing then speak (or vice versa).
- ❖ provide outlines, study guides
- ❖ change to/from multi-modality tasks
- ❖ show captioned videos



Classroom Modifications

- ❖ Decrease background noise
- ❖ Allow student to turn body to face speakers
- ❖ Give breaks from listening
- ❖ Provide quiet work space
- ❖ Assign a peer-buddy
- ❖ Use peer notetaker
- ❖ Avoid testing from videos



Assistive Listening Technology



Phonic Ear Easy Listener

Phonak Edulink

Phonak Microear

Case Study 1

Student: AM C.A.: 2-9 Grade: 8 Length of Trial: 5 Weeks

Background: Congenital profound hearing loss. Unilateral cochlear implant at age 4. Auditory weaknesses were commensurate with her hearing loss. Private audiologist recommended personal FM

ALD Protocol Tier II	Pre-Trial Results	Post-Trial Results
Rating Scale		
↔Teacher	N/A	N/A
↔Special Services	N/A	N/A
Student Rating Scale	3/5 sometimes	4/5 always

Anecdotal Information: Student reports personal assistive listening technology is beneficial for her in the classroom. She has better access to instruction with the exception of hearing classmates' comments.

Assistive Listening Technology Recommendation: Continued use of personal FM system.

Case Study 2

Student: ON C.A.: Grade: 3 Length of Trial: 5 Weeks

Background: Evaluation did not indicate an APD, however mild auditory weaknesses were noted, secondary to previous ADD diagnosis. Recommendations included trial use of FM system.

ALD Protocol Tier I	Pre-Trial Results	Post-Trial Results
Rating Scale		
↔Teacher	81%	68%
↔Special Services	69%	84%
Student Rating Scale	4 concern areas	4 improvement areas

Anecdotal Information: Student found FM system very helpful. She demonstrated responsibility for her system and always realized when it was not functioning.

Assistive Listening Technology Recommendation: Continued use of personal FM system.

Case Study 3

Student: CF C.A.: Grade: 3 Length of Trial: 5 Weeks

Background: Evaluation reflected difficulties in auditory closure, binaural separation and temporal pattern perception and sequencing skills. Recommendations included an FM system.

ALD Protocol Tier II	Pre-Trial Results	Post-Trial Results
Rating Scale		
↔Teacher	6 areas of concern	4 areas improved
↔Special Services	N/A	N/A
Student Rating Scale	5 areas of concern	N/A

Anecdotal Information: Re-evaluation demonstrated improvement in auditory closure and binaural separation. Temporal pattern perception and sequencing skills remain areas of weakness. Student has accepted the FM system well.

Assistive Listening Technology Recommendation: Continued access to FM system.

Case Study 4

Student: AB **C.A.:** 10 **Grade:** 5 **Length of Trial:** 5 Weeks

Background: Previous diagnosis of S/L impairment. Evaluation reflected an APD in decoding, tolerance-fading memory and organization. Recommendations included an FM system.

ALD Protocol Tier I	Pre-Trial Results	Post-Trial Results
Rating Scale		
↕Teacher	26	52
↕Special Services	N/A	N/A
Student Rating Scale	Yes 2/5	Yes 4/5

Anecdotal Information: Student gave positive report regarding the FM system. Stated that he could hear and work better.

Assistive Listening Technology Recommendation: Continued access to FM system.



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