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- Email customerservice@AudiologyOnline.com

continued[®]

Experiencing Solutions- Based Auditory Processing Evaluation and Therapy

Angela Loucks Alexander, AuD, MNZAS, CCC-A

continued[®]

Angela Loucks Alexander Au.D., MNZAS, CCC-A

Angela Alexander, Au.D., CCC-A, MNZAS, graduated from the University of Kansas in 2010 with a Doctor of Audiology and found her passion in the treatment of Auditory Processing Disorder (APD). Angela was privileged to have been mentored by Jack Katz, Ph.D., a world-leading expert on APD. Angela worked with Dr. Katz for seven years between 2004 to 2012, building her knowledge and expertise. With the Auditory Processing Institute, Angela is looking to train her peers in the skills needed to provide effective APD diagnostic and therapeutic options. She aims to double the number of SLP/Au.D. professionals providing effective auditory processing services through the online APD Master Courses by 2022. With APD Support she empowers clients to improve their auditory processing abilities through systematic auditory training through a series of modules.

continued[®]

continued

Course Description

This seminar seeks to demonstrate the utilization of the Central Test Battery/Buffalo Model therapy as a viable and innovative means to diagnose and treat Auditory Processing Disorders (APD).

This session will help clinicians interpret information from assessment results in the hope of furthering earlier identification, intervention and remediation.

continued

Presenter Disclosure

- Financial: Angela is paid for her work by her online learning platform Auditory Processing Institute and Telehealth therapy program APDSupport.com. She will not be discussing these programs during her presentation. She will be receiving an honorarium for this presentation from Audiology Online.
- Non-financial: Her data is currently being analyzed by the University of Buffalo to see the possible correlation between findings on the Central Test Battery and Acoustic Pioneer test results. There is no compensation for this work. She is a member of the International Guild of Auditory Processing Specialists (IGAPS) and her courses are affiliated with this group.
- Content Disclosure: This learning event does not focus exclusively on any specific product or service.
- Sponsor Disclosure: This course is presented by AudiologyOnline

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Learning Outcomes

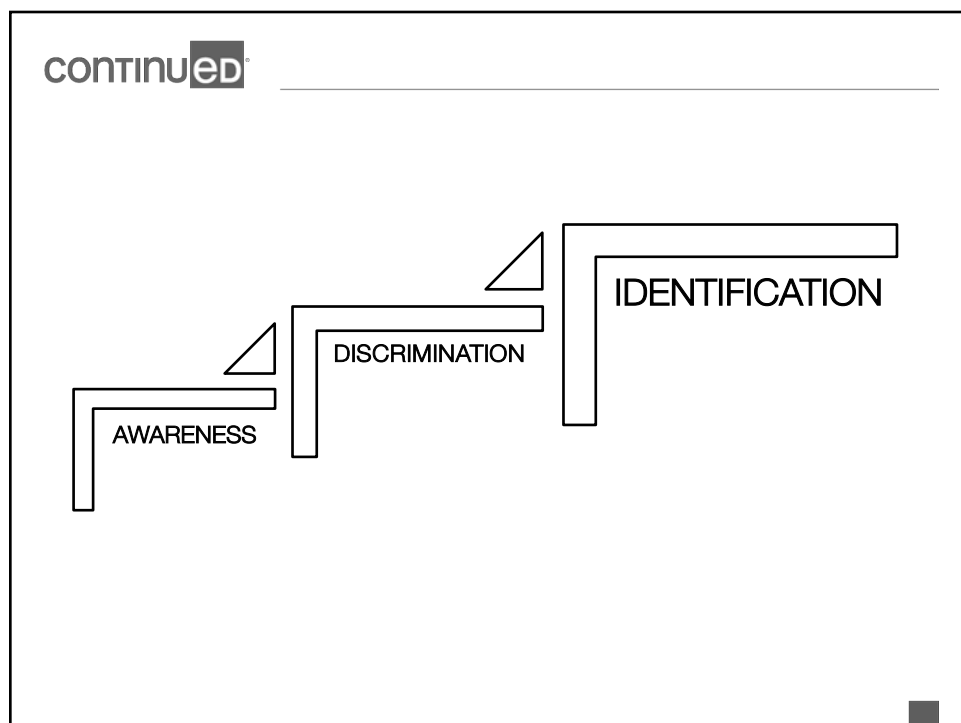
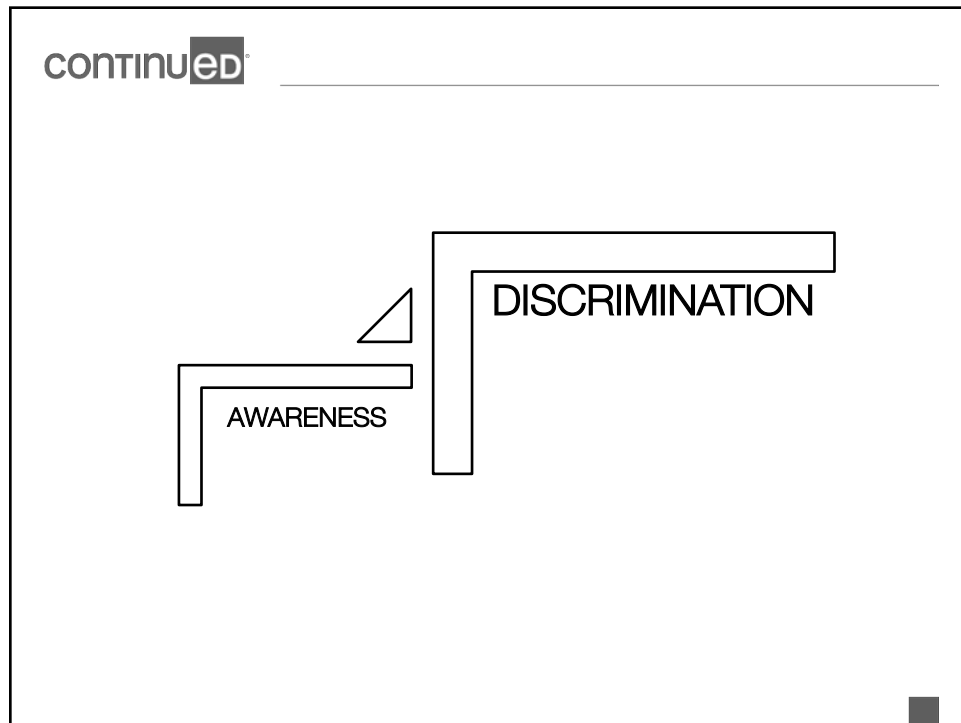
After this course, participants will be able to:

1. Identify the three assessments utilized in the Buffalo Model test battery to diagnose APD.
2. Describe the difference between quantitative and qualitative test results on the Central Test Battery.
3. Describe the phonemic training program and which category of APD it is designed to address.

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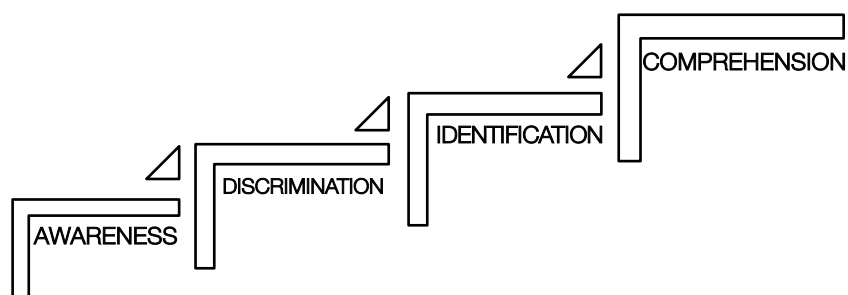
AWARENESS

continued^{ed}



continued

Erber's Model of Auditory Skill Development



continued

CASE STUDY: JACKIE

Angela Loucks Alexander, Au.D., CCC-A MNZAS
February 2020

continued

continued

DISCLAIMERS

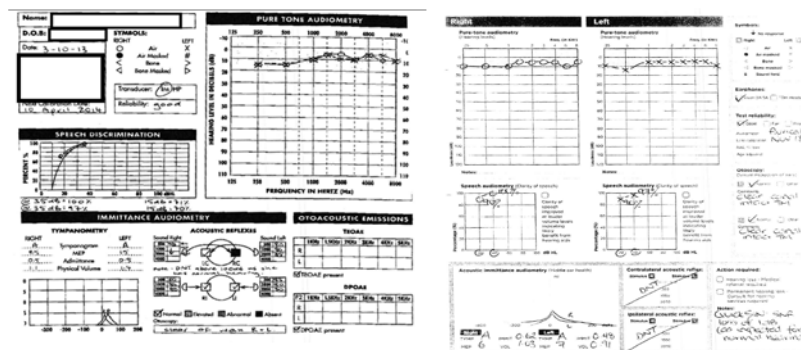
- Her name has been changed
- She has given me permission to share this with you
- She signed consent forms prior to any recording taking place
- While I am showing you samples of adult testing, 95% of our clients are children.

continued

AUDIOGRAMS

October 2013

May 2019



continued

continued

WHY SHE WAS REFERRED TO US:

- Difficulty following conversation in background noise
- Works in HR and has regular meetings and reports struggling to hear during these causing difficulty
- Requires subtitles while watching movies to follow the dialogue
- Reports learning difficulties as a child

continued

HEARING HANDICAP INVENTORY FOR ADULTS

- The Hearing Handicap Inventory for Adults is available in a 10 or 25 item questionnaire. It isn't APD specific.
- **Responses:**
 - Yes = 4 points
 - Sometimes = 2 points
 - No = 0 points

Newman, C. W., Weinstein, B. E., Jacobson, G. P., & Hug, G. A. (1990). The Hearing Handicap Inventory for Adults: psychometric adequacy and audiometric correlates. *Ear and Hearing*, 11, 430-433.

continued

continued

HER RESPONSE TO THE HHIA

- LOW QUALITY VIDEO

Question/Answer:

Does a hearing problem cause you to feel embarrassed when you meet new people? YES
 Does a hearing problem cause you to feel frustrated when talking to members of your family? YES
 Do you have difficulty hearing/understanding co-workers, clients/customers, or waitstaff? YES
 Do you feel disadvantaged by a hearing problem? YES
 Does a hearing problem cause you difficulty when visiting friends, relatives, or neighbors? YES
 Does a hearing problem cause you difficulties hearing in the movies or in the theatre? Sometimes
 Does a hearing problem cause you to have arguments with family members? Sometimes
 Does a hearing problem cause you difficulty when listening to TV or radio? YES
 Do you feel that any difficulty with your hearing limits or hampers your personal or social life? YES
 Does a hearing problem cause you difficulty when in a restaurant with relatives or friends? YES
Her score on the 26th of June was 82 out of a possible 100 points on the 25-item questionnaire.

continued

CENTRAL TEST BATTERY

Speech in Quiet and Noise
 Staggered Spondaic Word Test
 Phonemic Synthesis

Q4

continued

continued

MORE DISCLAIMERS

- She is a New Zealander and materials were in American English dialect. Results were analyzed carefully with that in mind.
- You are only seeing short segments of this testing - NOT complete results.
 - For example, I will show you Speech in Noise testing on the Right Ear only. This was also performed on the Left Ear.
 - There are 100 words presented in just the word recognition portion of testing (not just the 6 shown here.)
 - Learning effect has not been observed.

continued

Video

Speech in Noise (W22s)
Ear: Right only with Ipsilateral Noise
Presentation level: Speech= 50dB HL Noise= 45dB HL
SNR= +5

Test Date: 26 June 2019

18. shove	sharp
19. tan	
20. ate	
21. camp	
22. oil	
23. this	
24. do	



Q3

continued

continued

DISCLAIMERS FOR THE STAGGERED SPONDAIC WORD TEST

- This is a test of binaural integration
- The stimuli you hear is normally delivered to each ear in this order:
 Right Ear: 1. Up 2. Stairs
 Left Ear: 3. Down 4. Town
- The way you will hear it (from my speaker monitor) will have them completely overlapped in presentation.

DO NOT DIAGNOSE YOURSELF WITH APD IF YOU'D STRUGGLE TO REPEAT THE ITEM BACK CORRECTLY.

continued

Video: Staggered Spondaic Word Test

Staggered Spondaic Word Test Presentation Level: 50 dB HL, AU

Before therapy

	(E)	(F)	(G)	(H)	Rev	WRONG
22.	fruit	juice	cup	cake	R	
24.	nite	light	yard	stick	R	

After therapy

	(E)	(F)	(G)	(H)	Rev	WRONG
22.	fruit	juice	cup	cake	R	
24.	nite	light	yard	stick	R	

Let's have you hear her post... hear a relatively
no



Q2, Q5, Q6

continued

INITIAL TEST RESULT SUMMARY

Central Test Battery	Task	Level of Skill	
		Initial Test Date: 26 June 2019	
W-22 Words	Right Ear in Quiet	Normal	
	Right Ear in Noise	Severe Weakness	
	Left Ear in Quiet	Normal	
	Left Ear in Noise	Severe Weakness	
SSW Test	Total NOE	Severe Weakness	
	Right Non-Competing	Normal	
	Right Competing	Severe Weakness	
	Left Competing	Severe Weakness	
	Left Non-Competing	Severe Weakness	
Phonemic Synthesis	Quantitative	Normal	
	Qualitative	Severe Weakness	

Normal	Performance is similar to peers
Mild	86% of the population aged 12 years and older performed better on this task than this client
Moderate	98% of the population aged 12 years and older performed better on this task than this client
Severe	99.9% of the population aged 12 years and older performed better on this task than this client

Q8

BEFORE AND AFTER THERAPY
RESULT SUMMARY

Central Test Battery	Task	Level of Skill	
		Initial Test Date: 26 June 2019	Retest Test Date: 10 Jan 2020
W-22 Words	Right Ear in Quiet	Normal	Normal
	Right Ear in Noise	Severe Weakness	Normal
	Left Ear in Quiet	Normal	Normal
	Left Ear in Noise	Severe Weakness	Normal
SSW Test	Total NOE	Severe Weakness	Normal
	Right Non-Competing	Normal	Normal
	Right Competing	Severe Weakness	Normal
	Left Competing	Severe Weakness	Normal
	Left Non-Competing	Severe Weakness	Normal
Phonemic Synthesis	Quantitative	Normal	Normal
	Qualitative	Severe Weakness	Normal

Normal	Performance is similar to peers
Mild	86% of the population aged 12 years and older performed better on this task than this client
Moderate	98% of the population aged 12 years and older performed better on this task than this client
Severe	99.9% of the population aged 12 years and older performed better on this task than this client

continued

PHONEMIC SYNTHESIS TEST

- I will be showing you portions of another client's testing as Jackie's quantitative performance was within normal limits
- (which makes it a bit boring... TBH)

continued

HER RESPONSE TO THE HHIA

- AFTER THERAPY

HHIA Score

Question/Answer:

Does a hearing problem cause you difficulty when listening to TV or radio? NO

Does it cause you to go shopping less often than you'd like? NO

Does a problem or difficulty with your hearing upset you at all? NO, not now.

Does a hearing problem cause you to want to be by yourself? Sometimes

Does a hearing problem cause you to talk to family members less often than you would like? NO

Do you feel that any difficulty with your hearing limits or hampers your personal or social life? NO

Her score on the 10th of Jan 2019 was 24 out of a possible 100 points on the 25 item questionnaire.

continued

HHIA COMPARING PRE AND POST DATA

PHONEMIC SYNTHESIS TEST -
DISCLAIMERS

- This was testing done on a client named “Steve” who has given me permission to share his test results and recordings with you.
- Once again, I am only showing you the first items of this test to be expedient.
- He wore hearing aids for both the pre and post therapy evaluation appointments.
- He now wears cochlear implants and reports great acceptance.

continued

Video

Phonemic Synthesis Test
Presented in the Free Field at a comfortable level

	Word presented	Before therapy	After therapy
1	each		
2	shoe		
3	boat		
4	bake		
5	dog		



continued

EXPERIENCING SOLUTIONS-BASED APD THERAPY

Angela Loucks Alexander, Au.D., CCC-A MNZAS
February 2020

continued

continued

AUDITORY TRAINING WITH THE BUFFALO MODEL

Phonemic Training Program

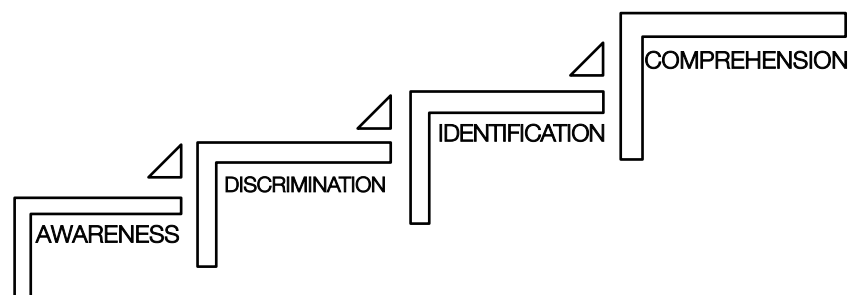
Words in Noise Training

Short Term Auditory Memory

Phonemic Synthesis Therapy

continued

Erber's Model of Auditory Skill Development



continued

continued

PHONEMIC TRAINING PROGRAM

Ready for a live demonstration?

Q7

continued

Video: Izzy

Q9, Q10

continued

continued

Video: Words in Noise Training

continued

SHORT TERM AUDITORY TRAINING

- Goal: To increase by one unit
- Repeating numbers, words, and sentences back
- Memory Interference Training

continued

PHONEMIC SYNTHESIS THERAPY

- Video

APD MAP

- 2008:
 - The number of professionals providing APD assessment OR therapy on the worldwide map were 250
- 2018:
 - The number of professionals providing were still 250
- 2020:
 - We have increased the number on the map to 334

continued

A FEW MORE STATISTICS:

Using the latest ASHA survey that inquired, how many audiologists test for auditory processing?

1.4%

If the conservative estimate of 5% of the population has APD, how many English speakers in the world would have processing problems, approximately?

300 million

continued

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THANK YOU FOR
LISTENING!

DON'T HESITATE TO
CONNECT WITH ME

continued