Speech Recognition and Identification Materials, Disc 4.0



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Score sheets can be downloaded from:

https://chs.asu.edu/shs/audio-cds-speech-audiometry

Reissued, 2011 (Yellow Disc)

INTRODUCTION

This audio compact disc (Version 4.0) is a revision of the *Speech Recognition and Identification Materials, Disc 1.1* that was produced originally in 1989 (Version 1.0) with minor revisions in 1991 and 1998 (Versions 1.1 and 2.0) for use by VA audiologists who use the six Maryland CNC word lists in the assessment of the word-recognition performance of patients undergoing compensation and pension examinations. The remaining recognition/identification materials contained on the disc were selected based on (1) the results of a survey of the VA audiology clinics, and (2) the availability of the materials either through the public domain or through the generosity of the individuals responsible for the materials, including G. Donald Causey, Ph.D. (spondaic words, Maryland CNC lists, and Northwestern University Auditory Test No. 6) and Bob Brose (Technisonic Studios, Inc., St. Louis, Charles E. Harrison, producer of the CID W-22 lists and the Rush Hughes recordings of the PB-50 lists).

The majority of speech materials contained on Version 4.0 of the *Speech Recognition and Identification Materials* compact disc are identical to the speech materials contained on previous versions. Several tracks on previous versions are not included on Version 4.0, *viz.* spondaic words with a 2-s interstimulus interval; Lists 10 and 11 of the Rush Hughes recordings of the PB-50s; and the Synthetic Sentence Identification (SSI) materials in the contralateral competing message paradigm. The NU No. 6 in multitalker babble tracks have been replaced with the Words-in-Noise (WIN) Test (Tracks 25 through 32) and a 500-Hz masking-level difference (MLD) protocol has been added (Track 35).

This compact disc project was compiled in the Auditory Research Laboratory at the James H. Quillen VA Medical Center, Mountain Home, Tennessee. The Laboratory was developed through a series of Merit Reviews from the Medical Research Service and the Rehabilitation Research and Development Service, VA Headquarters. The project also was supported by the East Tennessee State University Foundation.

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SPEECH MATERIALS

The text that follows describes briefly the materials that are contained on each track of the compact disc. A detailed script of each track and references are provided. Several characteristics of the recordings should be noted. With all of the 50 item word lists recorded on this compact disc, words 1-25 are recorded on one track and words 26-50 are recorded on the subsequent track.

Track 1. Both channels contain a 300-ms, 1000-Hz tone burst, followed sequentially by a 1-s silent interval and a 30-s, 1000-Hz calibration tone that reflects the peaks of the speech materials as monitored on a calibrated vu meter (Green, Williams, & Kryter, 1959; Lilly, 1967). The 300-ms tone burst can be used to check the ballistic characteristics of a VU meter. The needle on a calibrated VU meter will swing from -20 vu to 0 vu with minimal overshoot when a 300-ms tone burst is placed across the meter. It should be noted that many meters used on audiometers are not "true" VU meters and/or are not properly calibrated (ANSI, 1954). The 1000-Hz calibration tone may not reflect accurately the peaks of the speech materials on non-VU meters and on non-calibrated VU meters.

Track 2. The left (A) and right (B) channels contain two randomizations of the 36 CID W-1 spondaic words spoken by a female with 4-s inter-stimulus intervals. The left channel contains the spondaic words referenced to the 1000-Hz calibration tone, whereas the right channel contains the words referenced to equal intelligibility. Normative data for these materials are given in Cambron, Wilson, and Shanks (1991). Total time is 292 s.

Tracks 3 and 4. The left channel contains List 1 of the Maryland CNC materials recorded by a male (Causey, Hood, Hermanson, & Bowling, 1984), whereas the right channel contains a copy of the CID W-22 List 1A materials recorded by Technisonics Studios (Hirsh et al., 1952; Heckendorf, Wiley, & Wilson, 1997). Track 3 has words 1-25 and Track 4 has words 26-50. Both channels have 4.2-s inter-stimulus intervals; the total time/track is 107 s.

Tracks 5 and 6. The left channel has List 3 of the Maryland CNC words; the right channel has List 2A of the CID W-22 words. The ISI is 4.2 s with 107 s/track.

Tracks 7 and 8. The left channel has List 6 of the Maryland CNC words; the right channel has List 3A of the CID W-22 words. The ISI is 4.2 s with 108 s/track.

Tracks 9 and 10. The left channel has List 7 of the Maryland CNC words; the right channel has List 4A of the CID W-22 words. The ISI is 4.2 s with 108 s/track.

Tracks 11 and 12. The left channel has List 9 of the Maryland CNC words; the right channel has the Rush Hughes recording (Goetzinger, 1972; Heckendorf, et al., 1997) of List 8B of the Harvard PB-50 words (Egan, 1948). [For the Rush Hughes recordings, slight modifications (1 to 6 words/list) were made in the original PB-50 lists.] The ISI is 4.2 s with 108 s/track.

Tracks 13 and 14. The left channel has List 10 of the Maryland CNC words; the right channel has the Rush Hughes recording of List 9B of the PB-50 words. The ISI is 4.2 s with 108 s/track.

Tracks 15 and 16. The Picture Identification Task materials (List 1A, left channel and List 2A, right channel) are contained on these tracks (Wilson & Antablin, 1980; Wilson, & Antablin, 1982). The ISI is 6.0 s with 151 s/track.

Tracks 17 and 18. The left channel has List 1A of the Northwestern University Auditory Test No. 6 (NU No. 6) recorded by a female; the right channel has competing sentences [modified Bell Telephone Sentences (Fletcher & Steinberg, 1929)] recorded by a male. The original normative data for these materials in quiet, in broadband noise, and in the competing message (ipsilateral) are given in Wilson, Zizz, Shanks, and Causey (1990) with more recent data given

in Stoppenbach, Craig, Wiley, and Wilson (1999). The ISI is 4.6 s with 116 (Track 19) and 119 (Track 20) s/track.

Tracks 19 and 20. The left channel has List 2A of NU No. 6; the right channel has competing sentences. The ISI is 4.6 s with 116 s/track.

Tracks 21 and 22. The left channel has List 3A of NU No. 6; the right channel has competing sentences. The ISI is 4.6 s with 118 s/track.

Tracks 23 and 24. The left channel has List 4A of NU No. 6; the right channel has competing sentences. The ISI is 4.6 s with 118 s/track.

Track 25. Words-in-Noise (WIN) Test, List 1, Randomization 1. The WIN is on the left channel (1) and the words in quiet at a constant level are on the right channel (2) for use as a monitor channel. (Wilson, 2003; Wilson & Burks, 2005; Wilson & McArdle, 2007) (146 s/track).

Track 26. WIN, List 2, Randomization 1, 146 s/track.

Track 27. WIN, List 1, Randomization 2, 146 s/track.

Track 28. WIN, List 2, Randomization 2, 146 s/track.

Track 29. WIN, List 2, Randomization 3, 146 s/track.

Track 30. WIN, List 2, Randomization 3, 146 s/track.

Track 31. WIN, List 2, Randomization 4, 146 s/track.

Track 32. WIN, List 2, Randomization 4, 146 s/track.

Tracks 33 and 34. The Spanish Picture Identification materials recorded by a female speaker in a recognition paradigm [carrier phrase "diga usted" ("say")] are on these tracks (McCullough & Wilson, 1998). List 1 is on the left channel and List 2 is on the right channel. Track 33 has words 1-25 and Track 34 has words 36-50. The ISI is 4 s with 140 s/track.

Track 35. The 500-Hz masking-level difference (MLD) that consists of 33, 3000 ms noise bursts with 10 SoNo, 12 S π No, and 11 no tone (catch trials). The bandpass noise (200 to 800 Hz) is arithmetically centered around 500 Hz and has 48 dB/octave skirts. Within each noise burst, 5, 250-ms tone bursts with 10-ms rise/fall times are flanked by 300-ms off times. The score sheet and MLD tabulation procedure are available on-line at the previously mentioned website.

SCRIPT FOR EACH TRACK

TRACK 1 (33 s)

Left Channel

Right Channel

1000-Hz Cal Tone

1000-Hz Cal Tone

(300-ms tone burst¹; 1-s interval; 30-s tone)

¹To check the time constant of the vu meter

TRACK 2 (292 s)

Left Channel (equal vu)

Right Channel (equal intelligibility)

Track 2 (continued)

Left Channel (equal vu)

Right Channel (equal intelligibility)

TRACK 5 (108 S)

TRACK 6 (108 S)

LEFT CHANNEL	RIGHT CHANNEL	LEFT CHANNEL	RIGHT CHANNEL
MARYLAND CNC	CID W-22	MARYLAND CNC	CID W-22
LIST 3	LIST 2A	LIST 3	LIST 2A
 2. RAT 3. TOSS 4. SOON 5. FAITH 6. SUNG 7. KEG 8. VOTE 9. SIZE 10. NUMB 11. DAB 12. WHAT 13. ROOM 14. KID 15. DIKE 16. MATE 17. WELL 18. RIG 19. FOUR 20. BUSH 21. DIP 22. GAP 23. PERCH 24. SHEEP 	 BIN WAY CHEST THEN EASE SMART GAVE PEW ICE ODD KNEE MOVE NOW JAW ONE HIT SEND ELSE TARE DOES TOO CAP WITH 	 41. JOKE 42. HEAD 43. WITH 44. KEEN 45. MORE 46. LEAVE 47. HUT 48. NOISE 49. MAN 	28. CARS 29. TREE 30. DUMB 31. THAT 32. DIE 33. SHOW 34. HURT 35. OWN 36. KEY 37. OAK 38. NEW 39. LIVE 40. OFF 41. ILL 42. ROOMS 43. HAM 44. STAR 45. EAT 46. THIN 47. FLAT 48. WELL 49. BY
25. HOUSE	25. AIR	50. YAM	50. AIL

TRACK 7 (108 S)

TRACK 8 (108 S)

LEFT CHANNEL	RIGHT CHANNEL	LEFT CHANNEL	RIGHT CHANNEL
MARYLAND CNC	CID W-22	MARYLAND CNC	CID W-22
LIST 6	LIST 3A	LIST 6	LIST 3A
1. WHIP 2. BUD 3. SHONE 4. RUG 5. CHEESE 6. CHAIN 7. LOOK 8. DULL 9. POPE 10. CALF 11. FIRE 12. TURN 13. RAISE 14. SOUR 15. BED 16. LAWN 17. SIT 18. TUBE 19. VEAL 20. GET 21. PACE	 WEST CUTE START EARS TAN NEST SAY IS OUT LIE THREE OIL KING PIE HE SMOOTH FARM THIS DONE 	34. CAGE 35. MODE 36. SEARCH 37. GONE 38. RUSH 39. POLE 40. DIG 41. BAD 42. LIVE 43. MAP 44. WIFE 45. FAN 46. BIRTH	26. AIM 27. WHEN 28. BOOK 29. TIE 30. DO 31. HAND 32. END 33. SHOVE 34. HAVE 35. OWES 36. JAR 37. NO 38. MAY 39. KNIT 40. ON 41. IF 42. RAW 43. GLOVE 44. TEN 45. DULL 46. THOUGH
22. NIGHT 23. HISS 24. SHOCK	24. WOOL	47. TEAM 48. HOWL 49. HIKE	47. CHAIR 48. WE 49. ATE
25. WING	25. ARE	50. JAM	50. YEAR

TRACK 9 (108 S)

TRACK 10 (107 S)

<u>-</u>	_	RIGHT CHANNEL
MARYLAND CNC CID W-22	MARYLAND CNC	CID W-22
LIST 7 LIST 4A	LIST 7	LIST 4A
1. NOTE	30. LAUGH 31. SHALL 32. GEESE 33. TAPE 34. SACK 35. RIDGE 36. CHEEK 37. DUMB 38. TOP 39. YOUNG 40. LED 41. RIB 42. PASS 43. WIT 44. DID 45. CALL 46. NECK 47. SUCH	30. TOY 31. AID 32. THAN 33. EYES 34. SHOE 35. HIS 36. OUR 37. MEN 38. NEAR 39. FEW 40. JUMP 41. PALE 42. GO 43. STIFF 44. CAN 45. THROUGH 46. CLOTHES 47. WHO

TRACK 11 (107 S)

TRACK 12 (108 S)

LEFT CHANNEL	RIGHT CHANNEL	LEFT CHANNEL	RIGHT CHANNEL
MARYLAND CNC	RUSH HUGHES PB-50	MARYLAND CNC	RUSH HUGHES PB-50
LIST 9	LIST 8B	LIST 9	LIST 8B
1. LACK 2. WATCH 3. POWER 4. MIRE 5. NAIL 6. THINE 7. WORD 8. TOOL 9. MOB 10. HEN 11. GOT 12. SANE 13. SHOUT 14. PILL 15. BOTH 16. SHADE 17. JAZZ 18. LATHE 19. CATCH 20. WHITE 21. CHAIR 22. LOAF 23. PUN 24. HAM	1. JELL 2. ROLL 3. SHACK 4. FREAK 5. US 6. CALF 7. COD 8. DAY 9. RHYME 10. KILL 11. FOOD 12. HUM 13. FAD 14. LOOK 15. BORED 16. EACH 17. QUEEN 18. LEFT 19. FRONT 20. YEAST 21. BID 22. SLIDE 23. ROT 24. CRACK	26. WRONG 27. YES 28. SIN 29. CURVE 30. HAZE 31. GIRL 32. TIME 33. BOOK 34. REAP 35. FUDGE 36. VOICE 37. RAG 38. MUD 39. BALL 40. DECK 41. CUT 42. NEED 43. CHEER 44. SOAP 45. FEET 46. TICK 47. ROOF 48. DOG 49. BEAT	26. TILL 27. CHEW 28. FORTH 29. LICK 30. GUESS 31. ROPE 32. CHANT 33. CLOD 34. THIS 35. EASE 36. ROD 37. THREAD 38. NIGHT 39. DUMB 40. BOLT 41. REST 42. PINT 43. FROCK 44. ASK 45. FLIP 46. WIG 47. CATCH 48. SPICE 49. HORSE
25. LIP	25. BIND	50. DISH	50. DEUCE

TRACK 13 (108 S)

TRACK 14 (108 S)

MARYLAND CNCRUSH HUGHES PB-50MARYLAND CNCRUSH HUGHES PB-LIST 10LIST 9BLIST 10LIST 9B	
LIST 10 LIST 9B LIST 10 LIST 9B	PB-50
1. SUB 1. CHESS 26. SHACK 26. TAX 2. LOT 2. SMART 27. CONE 27. CARVE 3. DIN 3. ROOT 28. SELL 28. THRONE 4. DEATH 4. THANK 29. YOUR 29. NUTS 5. CHILL 5. ARCH 30. TERM 30. BIRTH 6. COIN 6. WEAK 31. MOOD 31. NOOSE 7. CAUSE 7. THAN 32. DEEP 32. TEN 8. BURN 8. WITH 33. MEEK 33. TROOP 9. LOOSE 9. LIT 34. ROPE 34. SKILL 10. PALM 10. GRACE 35. WITCH 35. ODD 11. JUDGE 11. CROWD 36. RIDE 36. REED 12. WASH 12. CHEST 37. BAKE 37. SPUD 13. ROB 13. KEY 38. GORE 38. WIPE 14. FINE 14. FUME 39. FOOL 39. DITCH 15. WHILE 15. CLUB 40. GUESS 40. GATE 16. CHAT 16. GIVE 41. MOUSE 41. MASS 17. BIT 17. PHONE 42. LUNG 42. CLOWN 18. NICK 18. BIT 43. LOAD 43. FOE 19. NEAT 19. RUDE 44. PATH 44. ITCH 20. HAIR 20. NERVE 45. PEAK 45. SIP 21. SAFE 21. FLAG 46. RUN 46. HOOF 22. HIT 22. TOAD 47. SAG 47. TUB 23. JADE 23. ICE 48. CAVE 48. FUSE 24. HURT 24. WILD 49. THATCH 49. YEAR 25. PILE 25. BEEF 50. TOWEL 50. BOOST	

TRACK 15 (151 S)

TRACK 16 (151 S)

LEFT CHANNEL	RIGHT CHANNEL	LEFT CHANNEL	RIGHT CHANNEL
PICTURE ID TASK	(PICTURE ID TASK	PICTURE ID TASK	PICTURE ID TASK
LIST 1A	LIST 2A	LIST 1A	LIST 2A
	1. GUN 2. DAM 3. CHALK 4. CHIEF 5. LOAD 6. JAIL 7. CATCH 8. PASS 9. DOOR 10. NAIL 11. WIG 12. SAIL 13. SHOP 14. WET 15. LAMB 16. JAR 17. VINE 18. SICK 19. MAIL 20. BACK 21. MAP 22. MAN	26. HEAD 27. BED 28. SUN 29. RUN 30. NOOSE 31. HUT 32. RUG 33. CHAIR 34. BATH 35. TOWN	26. TOOL 27. PATH 28. SING 29. CHEESE 30. DICE 31. HILL 32. RAIN 33. BUG 34. HOSE 35. GOWN 36. NET 37. SHED 38. ROBE 39. ROCK 40. BONE 41. FACE 42. THIEF 43. LICK 44. TOAD 45. PAGE 46. NIGHT 47. HAIR
23. DIG 24. FIRE 25. TOP	23. FEET 24. CAVE 25. CUT	48. JET 49. VEIL 50. MILL	48. WHEEL 49. RAT 50. LOG

TRACK 17 (116 s)

TRACK 18 (119 s)

Left Channel	Right Channel	Left Channel	Right Channel
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NORTHWESTERN UNIVERSITY AUDITORY TEST NO. 6

LIST 1A	COMPETING SENTENCES	LIST 1A	COMPETING SENTENCES
1. LAUD 2. BOAT 3. POOL 4. NAG 5. LIMB 6. SHOUT 7. SUB 8. VINE 9. DIME 10. GOOSE 11. WHIP 12. TOUGH 13. PUFF 14. KEEN 15. DEATH 16. SELL 17. TAKE 18. FALL 19. RAISE 20. THIRD 21. GAP 22. FAT 23. MET	Name three kinds of cheese. How many eggs in a dozen? Name five letters of the alphabet. What country produces olive oil? How much more is five than three? Name two kinds of nuts. Name a winter sport in Canada. Name a plant that grows in water. Name a common shade tree. Name an American battleship. Give five legal holidays. Name a type of milk. Give the color of a polar bear. Locate a good Southern harbor. Name two uses for ice. Give four colors in the rainbow. Name your favorite sport. Give the sum of four and six. Name three things made in a bakery. Locate a large hotel in the city. Name a common wildflower. Explain the daylight saving plan. Name one British colony.	26. LOVE 27. SURE 28. KNOCK 29. CHOICE 30. HASH 31. LOT 32. RAID 33. HURL 34. MOON 35. PAGE 36. YES 37. REACH 38. KING 39. HOME 40. RAG 41. WHICH 42. WEEK 43. SIZE 44. MODE 45. BEAN 46. TIP 47. CHALK 48. JAIL	Name two states in the west. Name the last novel you read. Name two dairy products. Name three historical events. Name the last day of the week. Name a large city in Canada. Name three different liquids. Tell how Lincoln met his death. Name a popular play. Suggest a scheme for earning money. What winds usually bring rain? Why do ships carry life boats? Name a liquid used for writing. Name three mineral products. How many quarts in a gallon? Does water run up hill or down? Name two inventors. What time of the year is harvest time? Name three precious gems. Why do birds fly South in the winter? Draw an outline of North America. Name the number before thirty-seven. Give the name for dried grapes.
24. JAR 25. DOOR	Name four points on a compass. How many inches in a yard?	49. BURN 50. KITE	What causes warm air to rise? Describe the American flag.

TRACK 19 (118 s)

TRACK 20 (118 s)

Left Channel Right Channel Left Channel Right Channel

NORTHWESTERN UNIVERSITY AUDITORY TEST NO. 6

LI	ST 2A	COMPETING SENTENCES	LI	ST 2A	COMPETING SENTENCES
2. 3. 4. 5.	PICK ROOM NICE SAID FAIL SOUTH	Give the color of a polar bear. Name three different liquids. Name three things made in a bakery. Name a liquid used for writing. Suggest a scheme for earning money How much more is five than three?	27. 28. 29. 30.	MILL HUSH SHACK READ ROT HATE	Name a type of milk. Name a popular play. Name a large city in Canada. Tell how Lincoln met his death. How many eggs in a dozen? Name your favorite sport.
	WHITE	What country produces olive oil?	-	LIVE	Give five legal holidays.
	KEEP	Name three historical events.		BOOK	Name two dairy products.
	DEAD	Name two uses for ice.		VOICE	Why do ships carry life boats?
10.	LOAF	Name one British colony.	35.	GAZE	Name the last novel you read.
11.	DAB	What causes warm air to rise?	36.	PAD	Name three kinds of cheese.
	NUMB	Give four colors in the rainbow.			Name an American battleship.
13.	JUICE	Name five letters of the alphabet.	38.	BOUGHT	How many inches in a yard?
14.	CHIEF	What winds usually bring rain?	39.	TURN	Name the number before thirty-seven.
	MERGE	Give the sum of four and six.		CHAIR	Give the name for dried grapes.
16.	WAG	Locate a large hotel in the city.	41.	LORE	Name two inventors.
17.	RAIN	Name a plant that grows in water.	42.	BITE	How many quarts in a gallon?
18.	WITCH	Name the last day of the week.	43.	HAZE	Name three precious gems.
19.	SOAP	Name two states in the west.	44.	MATCH	Why do birds fly South in the winter?
20.	YOUNG	Name three mineral products.	45.	LEARN	Name a common shade tree.
21.	TON	Name four points on a compass.	46.	SHAWL	Does water run up hill or down?
22.	KEG	Describe the American flag.	47.	DEEP	What time of the year is harvest time?
23.	CALM	Explain the daylight saving plan.	48.	GIN	Locate a good Southern harbor.
24.	TOOL	Name a winter sport in Canada.	49.	GOAL	Draw an outline of North America.
25.	PIKE	Name two kinds of nuts.	50.	FAR	Name a common wildflower.

TRACK 21 (118 s)

TRACK 22 (117 s)

Left Channel Right Channel Left Channel Right Channel

NORTHWESTERN UNIVERSITY AUDITORY TEST NO. 6

LIST 3A	COMPETING SENTENCES	LIS	ST 3A	COMPETING SENTENCES
1. BASE 2. MESS 3. CAUSE 4. MOP 5. GOOD 6. LUCK 7. WALK	Name a popular play. Name two kinds of nuts. Locate a large hotel in the city. Does water run up hill or down? Name a common shade tree. Name your favorite sport. How many inches in a yard?	27. 28. 29. 30. 31.	GUN JUG SHEEP FIVE RUSH RAT VOID	Name one British colony. Describe the American flag. How many quarts in a gallon? What winds usually bring rain? Give the sum of four and six. Name two states in the west. Name two uses for ice.
8. YOUTH	Tell how Lincoln met his death.		WIRE	What time of the year is harvest time?
9. PAIN	Why do birds fly South in the winter?		HALF	Name three precious gems.
10. DATE	How many eggs in a dozen?		NOTE	Name two dairy products.
11. PEARL	Name the last day of the week.		WHEN	Name four points on a compass.
12. SEARCH	I Give the name for dried grapes.	37.	NAME	How much more is five than three?
13. DITCH	Name three different liquids.	38.	THIN	Name three mineral products.
14. TALK	Name a plant that grows in water.	39.	TELL	Give four colors in the rainbow.
15. RING	Name an American battleship.	40.	BAR	Name a winter sport in Canada.
16. GERM	Explain the daylight saving plan.	41.	MOUSE	Name three historical events.
17. LIFE	Give the color of a polar bear.	42.	HIRE	Name three kinds of cheese.
18. TEAM	Suggest a scheme for earning money		CAB	Name the number before thirty-seven.
19. LID	Name a common wildflower.	44.	HIT	Name two inventors.
20. POLE	Why do ships carry life boats?	45.	CHAT	Locate a good Southern harbor.
21. RODE	Name the last novel you read.	46.	PHONE	Name a liquid used for writing.
22. SHALL	Name five letters of the alphabet.		SOUP	Draw an outline of North America.
23. LATE	Name a type of milk.	48.	DODGE	Name three things made in a bakery.
24. CHEEK	Name a large city in Canada.		SEIZE	What causes warm air to rise?
25. BEG	Give five legal holidays.	50.	COOL	What country produces olive oil?

TRACK 23 (118 s)

TRACK 24 (118 s)

Left Channel	Right Channel	Left Channel	Right Channel
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NORTHWESTERN UNIVERSITY AUDITORY TEST NO. 6

LIST 4A	COMPETING SENTENCES	LIST 4A	COMPETING SENTENCES
1. PASS 2. DOLL 3. BACK 4. RED 5. WASH 6. SOUR 7. BONE 8. GET 9. WHEAT 10. THUMB 11. SALE 12. YEARN 13. WIFE 14. SUCH 15. NEAT 16. PEG 17. MOB 18. GAS 19. CHECK 20. JOIN	What causes warm air to rise? What country produces olive oil? Name a common wildflower. Name two kinds of nuts. Name the last novel you read. How much more is five than three? Name three precious gems. How many eggs in a dozen? Explain the daylight saving plan. Locate a large hotel in the city. Name two uses for ice. Name four points on a compass. How many inches in a yard? Give the name for dried grapes. Tell how Lincoln met his death. Name an American battleship. Name a popular play. Why do ships carry life boats? Give five legal holidays. What winds usually bring rain?	26. LEAN 27. TAPE 28. TIRE 29. DIP 30. ROSE 31. CAME 32. FIT 33. MAKE 34. VOTE 35. JUDGE 36. FOOD 37. RIPE 38. HAVE 39. ROUGH 40. KICK 41. LOSE 42. NEAR 43. PERCH 44. SHIRT 45. BATH	Name three mineral products. What time of the year is harvest time? Name the last day of the week. Give the color of a polar bear. Name a liquid used for writing. Draw an outline of North America. Name your favorite sport. How many quarts in a gallon? Name a large city in Canada. Describe the American flag. Name three different liquids. Name two inventors. Why do birds fly South in the winter? Name one British colony. Name two states in the west. Name five letters of the alphabet. Name a type of milk. Name three things made in a bakery. Name three kinds of cheese. Locate a good Southern harbor.
21. LEASE	Name a common shade tree.	46. TIME	Does water run up hill or down?
22. LONG	Name three historical events.	47. HALL	Name the number before thirty-seven?
23. CHAIN	Give four colors in the rainbow.	48. MOOD	Name a winter sport in Canada.
24. KILL	Give the sum of four and six.	49. DOG	Suggest a scheme for earning money.
25. HOLE	Name two dairy products.	50. SHOULI	Name a plant that grows in water.

Track 25 (145 s)

Track 26 (145 s)

Words-in-Noise Test (WIN)

Words-in-Noise Test (WIN)

Left Channel Test Materials

Right Channel Monitor Words

List 1, Random 1

34. READ

35. BATH

List 2, Random 1

Left Channel Test Materials Right Channel Monitor Words

1. PAIN 24-dB S/N 2. YOUTH 24-dB S/N 3. WHEAT 24-dB S/N 4. DODGE 24-dB S/N 5. COOL 24-dB S/N 6. DITCH 20-dB S/N 7. RING 20-dB S/N 20-dB S/N 8. KICK 20-dB S/N 9. CHAIR 10.LUCK 20-dB S/N **11. BASE** 16-dB S/N **12. WIRE** 16-dB S/N 13. RED 16-dB S/N 14. TON 16-dB S/N 15. JUDGE 16-dB S/N **16. HATE** 12-dB S/N 17. SHACK 12-dB S/N 18. TOOL 12-dB S/N 19. VOICE 12-dB S/N 20. RUSH 12-dB S/N **21. TURN** 8-dB S/N 22. YOUNG 8-dB S/N 23. BITE 8-dB S/N 24. PICK 8-dB S/N 25. HALF 8-dB S/N 26. FAR 4-dB S/N 27. LEARN 4-dB S/N 28. TALK 4-dB S/N 29. MODE 4-dB S/N 4-dB S/N 30. NOTE 31. GAZE 0-dB S/N 32. LIFE 0-dB S/N 33. GATE 0-dB S/N

0-dB S/N

0-dB S/N

1. FOOD 24-dB S/N 2. ROAD 24-dB S/N 3. JUICE 24-dB S/N 4. LATE 24-dB S/N 5. HIRE 24-dB S/N 6. TIRE 20-dB S/N 7. SUCH 20-dB S/N 8. SHAWL 20-dB S/N 9. HAZE 20-dB S/N 10. GUN 20-dB S/N 11. LIVE 16-dB S/N 12. DATE 16-dB S/N 13. GAS 16-dB S/N 14. HAVE 16-dB S/N 15. DOG 16-dB S/N 16. GOOD 12-dB S/N 17. SEARCH 12-dB S/N **18. PASS** 12-dB S/N 19. WITCH 12-dB S/N 20. CHIEF 12-dB S/N **21. SOUR** 8-dB S/N 22. DOLL 8-dB S/N 23. DEEP 8-dB S/N 24. SOAP 8-dB S/N 25. MAKE 8-dB S/N 26. BEG 4-dB S/N 27. MESS 4-dB S/N 28. LONG 4-dB S/N 29. MOUSE 4-dB S/N 30. SHEEP 4-dB S/N 31. BACK 0-dB S/N 32. DAB 0-dB S/N 33. KILL 0-dB S/N

0-dB S/N

0-dB S/N

34. NICE

35. CALM

Track 27 (145 s)

Track 28 (145 s)

Words-in-Noise Test (WIN)

Words-in-Noise Test (WIN)

List 1, Random 2

List 2, Random 2

Left Channel Test Materials Right Channel Monitor Words Left Channel Test Materials Right Channel Monitor Words

1. Road	24-dB S/N
2. Late	24-dB S/N
3. FOOD	24-dB S/N
4. JUICE	24-dB S/N
5. HIRE	24-dB S/N
6. GUN	20-dB S/N
7. TIRE	20-dB S/N
8. HAZE	20-dB S/N
9. SUCH	20-dB S/N
10. SHAWL	20-dB S/N
11. DOG	16-dB S/N
12. DATE	16-dB S/N
13. HAVE	16-dB S/N
14. LIVE	16-dB S/N
15. GAS	16-dB S/N
16. WITCH	12-dB S/N
17. GOOD	12-dB S/N
18. SEARCH	12-dB S/N
19. PASS	12-dB S/N
20. CHIEF	12-dB S/N
21. MAKE	8-dB S/N
22. DOLL	8-dB S/N
23. SOUR	8-dB S/N
24. DEEP	8-dB S/N
25. SOAP	8-dB S/N
26. BEG	4-dB S/N
27. MOUSE	4-dB S/N
28. MESS	4-dB S/N
29. LONG	4-dB S/N
30. SHEEP	4-dB S/N
31. BACK	0-dB S/N
32. CALM	0-dB S/N
33. DAB	0-dB S/N
34. NICE	
-	0-dB S/N
35. KILL	0-dB S/N

Track 29 (145 s)

Track 30 (145 s)

Words-in-Noise Test (WIN)

Words-in-Noise Test (WIN)

List 1, Random 3

List 2, Random 3

Left Channel Test Materials Right Channel Monitor Words Left Channel Test Materials Right Channel Monitor Words

1. HIRE	24-dB S/N
2. FOOD	24-dB S/N
3. ROAD	24-dB S/N
4. LATE	24-dB S/N
5. JUICE	24-dB S/N
6. HAZE	20-dB S/N
7. SUCH	20-dB S/N
8. TIRE	20-dB S/N
9. SHAWL	20-dB S/N
10. GUN	20-dB S/N
11. DATE	16-dB S/N
12. DOG	16-dB S/N
13. LIVE	16-dB S/N
14. HAVE	16-dB S/N
15. GAS	16-dB S/N
16. PASS	12-dB S/N
17. GOOD	12-dB S/N
18. WITCH	12-dB S/N
19. CHIEF	12-dB S/N
20. SEARCH	12-dB S/N
21. MAKE	8-dB S/N
22. SOUR	8-dB S/N
23. DEEP	8-dB S/N
24. DOLL	8-dB S/N
25. SOAP	8-dB S/N
26. LONG	4-dB S/N
27. SHEEP	4-dB S/N
28. BEG	4-dB S/N
29. MOUSE	4-dB S/N
30. MESS	4-dB S/N
31. BACK	0-dB S/N
32. NICE	0-dB S/N
33. CALM	0-dB S/N
34. DAB	0-dB S/N
35. KILL	0-dB S/N

Track 31 (145 s)

Track 32 (145 s)

Words-in-Noise Test (WIN)

Words-in-Noise Test (WIN)

List 1, Random 4

List 2, Random 4

Left Channel Test Materials Right Channel Monitor Words Left Channel Test Materials Right Channel Monitor Words

1. FOOD	24-dB S/N
2. JUICE	24-dB S/N
3. HIRE	24-dB S/N
4. LATE	24-dB S/N
5. ROAD	24-dB S/N
6. GUN	20-dB S/N
7. SUCH	20-dB S/N
8. SHAWL	20-dB S/N
9. HAZE	20-dB S/N
10. TIRE	20-dB S/N
11. DATE	16-dB S/N
12. GAS	16-dB S/N
13. DOG	16-dB S/N
14. HAVE	16-dB S/N
15. LIVE	16-dB S/N
16. CHIEF	12-dB S/N
17. PASS	12-dB S/N
18. WITCH	12-dB S/N
19. GOOD	12-dB S/N
20. SEARCH	12-dB S/N
21. DEEP	8-dB S/N
22. MAKE	8-dB S/N
23. SOAP	8-dB S/N
24. DOLL	8-dB S/N
25. SOUR	8-dB S/N
26. MOUSE	4-dB S/N
27. SHEEP	4-dB S/N
28. MESS	4-dB S/N
29. BEG	4-dB S/N
30. LONG	4-dB S/N
31. NICE	0-dB S/N
32. KILL	0-dB S/N
33. DAB	0-dB S/N
34. BACK	0-dB S/N
35. CALM	0-dB S/N

TRACK 33 (140 s) TRACK 33 (140 s) TRACK 34 (139 s) TRACK 34 (139 s)

Left Channel Right Channel Left Channel Right Channel

SPANISH WORD RECOGNITION

SPANISH WORD RECOGNITION

LIST 1A (words 1-25) LIST 2A (words 1-25) LIST 1A (words 26-50) LIST 2A (words 26-50)

	mono	(monkey)	1.	mesa	(table)	1.	santo	(saint m.)	1.	santa	(saint m.)
	prisa	(hurry)	2.	piso	(floor)	2.	voto	(vote)	2.	zorro	(fox)
3.	jota	("J")	3.	halcón	(hawk)	3.	barca	(boat)	3.	barra	(bar)
4.	riza	(pray)	4.	roca	(snore)	4.	queso	(cheese)	4.	plaza	(plaza)
5.	rama	(twig)	5.	riña	(fight)	5.	hueso	(bone)	5.	fresa	(strawberry)
6.	ratón	(rat)	6.	risa	(laugh)	6.	cárcel	(jail)	6.	carta	(jelly)
7.	correr	(run)	7.	comer	(eat)	7.	oso	(bear)	7.	ocho	(eight)
8.	salto	(jump)	8.	sapo	(frog)	8.	pito	(whistle)	8.	piña	(pineapple)
9.	canta	(sing)	9.	cabra	(goat)	9.	roja	(red)	9.	ronca	(snore)
10.	barba	(boat)	10.	balcón	(balcony)	10.	caja	(box)	10.	bolsa	(purse)
11.	ladrón	(robber)	11.	jamón	(ham)	11.	ropa	(rope)	11.	rosa	(rose)
12.	viña	(vine)	12.	vota	(vote)	12.	pico	(sting)	12.	pino	(pine tree)
13.	foto	(photo)	13.	coser	(sew)	13.	cono	(cone)	13.	coca	(coke)
14.	pala	(shovel)	14.	oro	(gold)	14.	ojo	(eye)	14.	nota	(note)
15.	talón	(heel)	15.	tapa	(lid)	15.	besa	(kiss)	15.	bastón	(cane)
16.	gorro	(cap)	16.	dama	(lady)	16.	llama	(knock)	16.	llanta	(tire)
17.	manta	(blanket)	17.	lloro	(cry)	17.	capa	(cape)	17.	cama	(bed)
18.	tasa	(cup)	18.	tisa	(chalk)	18.	masa	(dough)	18.	mala	(sick f.)
19.	boca	(mouth)	19.	bata	(robe)	19.	papa	(potato)	19.	peso	(money)
20.	bota	(boot)	20.	boda	(wedding)	20.	carne	(meat)	20.	carga	(load)
21.	rota	(broken f.)	21.	roto	(broken m.)	21.	bola	(ball)	21.	beso	(kiss)
22.	balón	(balloon)	22.	ala	(wing)	22.	cara	(face)	22.	caña	(cane)
23.	sala	(living rm)	23.	saco	(sack)	23.	coger	(catch)	23.	casa	(house)
24.	misa	(mass)	24.	mapa	(map)	24.	toro	(bull)	24.	trono	(throne)
25.	niña	(girl)	25.	moto	(motorcycle)	25.	toca	(knock)	25.	tono	(note)
18. 19. 20. 21. 22. 23. 24.	tasa boca bota rota balón sala misa	(cup) (mouth) (boot) (broken f.) (balloon) (living rm) (mass)	18. 19. 20. 21. 22. 23. 24.	tisa bata boda roto ala saco mapa	(chalk) (robe) (wedding) (broken m.) (wing) (sack) (map)	18. 19. 20. 21. 22. 23. 24.	masa papa carne bola cara coger toro	(dough) (potato) (meat) (ball) (face) (catch) (bull)	18. 19. 20. 21. 22. 23. 24.	mala peso carga beso caña casa trono	(sick f.) (money) (load) (kiss) (cane) (house) (throne)

Track 35 (235 s)

Left & Right Channel.

500-Hz Masking-Level Difference Stimuli

	Condition	Signal-to-Noise Ratio
1.	SoNo	1-dB S/N
2.	SπNo	−7-dB S/N
3.	No Tone	0 10 0 41
4. 5.	SπNo No Tone	−9-dB S/N
5. 6.	SoNo	-1-dB S/N
7.	No Tone	1-db 0/11
8.	SoNo	−3-dB S/N
9.	$S\piNo$	-11-dB S/N
10.	No Tone	
11.	$S\piNo$	-13-dB S/N
12.	SoNo	−5-dB S/N
13.	$S_{\pi}No$	-15-dB S/N
14.	SoNo	−7-dB S/N
15.	No Tone	0 10 0 41
16.	SoNo	−9-dB S/N
17.	No Tone	47 JD C/N
18. 19.	SπNo SoNo	−17-dB S/N −11-dB S/N
19. 20.	Solvo SπNo	-11-db S/N -19-dB S/N
21.	SπΝο No Tone	-19-0B 3/N
22.	SπNo	-21-dB S/N
23.	No Tone	21-ab 3/11
24.	SoNo	−13-dB S/N
25.	No Tone	
26.	SoNo	-15-dB S/N
27.	$S\piNo$	-23-dB S/N
28.	No Tone	
29.	$S\piNo$	-25-dB S/N
30.	SoNo	-17-dB S/N
31.	$S\pi No$	-27-dB S/N
32.	No Tone	
33.	$S\pi No$	-29-dB S/N

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SPEECH RECOGNITION AND IDENTIFICATION MATERIALS, DISC 4.0

Trac	ck Left Channel	Right Channel	Time
1	1000-Hz Calibration Tone	1000-Hz Calibration Tone	0:31
2	Spondaic Words $(72, at = vu)^1$	Spondaic Words (72 at = intelligibility)	4:52
3	Maryland CNC List 1 (1-25) ¹	CID W-22 List 1A (1-25) ²	1:48
4	Maryland CNC List 1 (26-50)	CID W-22 List 1A (26-50)	1:46
5	Maryland CNC List 3 (1-25)	CID W-22 List 2A (1-25)	1:48
6	Maryland CNC List 3 (26-50)	CID W-22 List 2A (26-50)	1:48
7	Maryland CNC List 6 (1-25)	CID W-22 List 3A (1-25)	1:48
8	Maryland CNC List 6 (26-50)	CID W-22 List 3A (26-50)	1:48
9	Maryland CNC List 7 (1-25)	CID W-22 List 4A (1-25)	1:48
10	Maryland CNC List 7 (26-50)	CID W-22 List 4A (26-50)	1:47
11	Maryland CNC List 9 (1-25)	Rush Hughes PB-50 List 8B (1-25) ²	1:47
12	Maryland CNC List 9 (26-50)	Rush Hughes PB-50 List 8B (26-50)	1:48
13	Maryland CNC List 10 (1-25)	Rush Hughes PB-50 List 9B (1-25)	1:48
14	Maryland CNC List 10 (26-50)	Rush Hughes PB-50 List 9B (26-50)	1:48
15	Picture ID Task List 1A (1-25) ³	Picture ID Task List 2A (1-25)	2:31
16	Picture ID Task List 1A (26-50)	Picture ID Task List 2A (26-50)	2:31
17	NU No. 6 CNC List 1A (1-25) ¹	Competing Sentences	1:56
18	NU No. 6 CNC List 1A (26-50)	Competing Sentences	1:59
19	NU No. 6 CNC List 2A (1-25)	Competing Sentences	1:58
20	NU No. 6 CNC List 2A (26-50)	Competing Sentences	1:58
21	NU No. 6 CNC List 3A (1-25)	Competing Sentences	1:58
22	NU No. 6 CNC List 3A (26-50)	Competing Sentences	1:57
23	NU No. 6 CNC List 4A (1-25)	Competing Sentences	1:58
24	NU No. 6 CNC List 4A (26-50)	Competing Sentences	1:58
25	WIN Test, List 1, Random 1	WIN Test, List 1, Random 1 (monitor)	2:25
26	WIN Test, List 2, Random 1	WIN Test, List 2, Random 1 (monitor)	2:25
27	WIN Test, List 1, Random 2	WIN Test, List 1, Random 2 (monitor)	2:25
28	WIN Test, List 2, Random 2	WIN Test, List 2, Random 2 (monitor)	2:25
29	WIN Test, List 1, Random 3	WIN Test, List 1, Random 3 (monitor)	2:25
30	WIN Test, List 2, Random 3	WIN Test, List 2, Random 3 (monitor)	2:25
31	WIN Test, List 1, Random 4	WIN Test, List 1, Random 4 (monitor)	2:25
32.	WIN Test, List 2, Random 5	WIN Test, List 2, Random 4 (monitor)	2:25
33	Spanish Word Recog List 1 (1-25)	Spanish Word Recog List 2 (1-25)	2:20
34 35	Spanish Word Recog List 1 (26-50)	Spanish Word Recog List 2 (26-50)	2:19 3:52
აა	500-Hz Masking-Level Difference	500-Hz Masking-Level Difference	3.52

76:49

¹Spondaic words, Maryland CNC lists, & NU No. 6 CNC lists reproduced compliments of G. Donald Causey, Ph.D.,

Consultant in Audiology, VA Medical Center, Washington, D.C.

²CID W-22 lists & PB-50 lists (Rush Hughes) reproduced from the original recordings produced by Charles E. Harrison

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³Picture Identification Task lists compliments of Audiology Section, VA Medical Center, Mountain Home, Tennessee.

⁴Synthetic Sentence Identification materials reproduced compliments of James Jerger, Ph.D., University of Texas, Dallas.