

**HEARING AID RESEARCH LABORATORY**  
**Word In Context Intelligibility Test (WICIT)**



**User Manual**

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## INTRODUCTION TO THE WICIT

The Word In Context Intelligibility Test (WICIT) was originally developed in 1995 as a test to quantify use of linguistic context by hearing impaired listeners. It includes high-predictability (HP) sentences and zero-predictability (ZP) sentences. HP sentences are context-rich four-word sentences. For example: “Feet have five toes.” ZP sentences are meaningless four-word combinations. For example: “Red June hay paint.” The WICIT consists of 4 HP lists with 20 sentences (Lists 1A-4A) and four ZP lists with 20 sentences (List 1B-4B). The four ZP lists were constructed by randomizing the words within each HP list. In addition, there are 15 HP practice sentences and 15 ZP practice sentences.

## AUDIO FILE DOWNLOAD

Audio files in .wav formats are available on [www.harlmemphis.org](http://www.harlmemphis.org). Long-term RMS levels of calibration signal, masking noise, and sentences were digitally equalized. All the audio files are stereo files (Table 1).

| <b>File</b> | <b>Left channel</b> | <b>Right channel</b> |
|-------------|---------------------|----------------------|
| 1           | 1kHz Cal Tone       | 1kHz Cal Tone        |
| 2           | Practice HP         | Speech-shaped Noise  |
| 3           | Practice ZP         | Speech-shaped Noise  |
| 4           | 1A (HP)             | Speech-shaped Noise  |
| 5           | 2A (HP)             | Speech-shaped Noise  |
| 6           | 3A (HP)             | Speech-shaped Noise  |
| 7           | 4A (HP)             | Speech-shaped Noise  |
| 8           | 1B (ZP)             | Speech-shaped Noise  |
| 9           | 2B (ZP)             | Speech-shaped Noise  |
| 10          | 3B (ZP)             | Speech-shaped Noise  |
| 11          | 4B (ZP)             | Speech-shaped Noise  |
| 12          | Speech-shaped Noise | Speech-shaped Noise  |

Table 1. Audio files for the WAV.

The audio files in the downloadable package include files for

- Calibration signals:
  - 1 kHz calibration tone: *Calibration tone.wav*
- Masking noises:
  - Unmodulated broadband talker-matched noise: *Masking noise.wav*
- Sentences
  - HP lists: *List 1A.wav, List 2A.wav, List 3A.wav, List 4A.wav*
  - ZP lists: *List 1B.wav, List 2B.wav, List 3B.wav, List 4B.wav*
  - Practice lists: *Practice HP.wav, Practice ZP.wav*

## **SCORING METHOD**

The test is administered by playing one sentence at a time. The listener is instructed to repeat the sentence to the examiner. Each word is scored as correct or incorrect. Each word must be repeated exactly to be scored as correct. Subjects who repeat the test words incorrectly for number or tense are not given credit for being partially correct. The proportion of correctly repeated words is computed for each list. There are 80 test words per list.

## **Instructions for the WICIT in masking noise**

### *For HP lists:*

You will hear a woman's voice saying some sentences. You also are going to hear some noise playing at the same time. Each sentence has 4 words. Please repeat each sentence the woman says back to me exactly as you hear it. Sometimes, it might be difficult to understand what she says. Try your best to repeat as much of each sentence as you can. It is ok to guess.

Do you have any questions?

### *For ZP lists:*

You will hear a woman's voice saying lists of 4 words in a background of noise. Please repeat each list of 4 words the woman says back to me exactly as you hear it. Sometimes, it might be difficult to understand what she says. Try your best to repeat as many of the words as you can. It is ok to guess.

Do you have any questions?

## Appendix

Practice sentence lists and Test sentence lists

### Practice Form A:

High Predictability

1. Lamp bulbs glow bright.
2. Halt for stop signs.
3. Moms cook good meals.
4. Grill beef steaks rare.
5. Chopped nuts top cakes.
6. Vans haul wide loads.
7. Plows till farm fields.
8. Keys fit door locks.
9. Fruit bowls hold pears.
10. Streams flow through hills.
11. Bake me peach pie.
12. Dad wants meat loaf.
13. Bees buzz rose buds.
14. Drums beat low notes.
15. Bats seek dark caves.

### Practice Form B:

Zero Predictability

1. Me keys steaks signs.
2. Dad peach stop rare.
3. Fit halt glow hairs.
4. Fruit streams grill hills.
5. Good wants nuts meals.
6. Door moms hold bright.
7. Cook flow bake locks.
8. Four beef bowls loaf.
9. Through meat bulbs cakes.
10. Chopped top lamp pie.
11. Buzz vans bats loads.
12. Seek ball till buds.
13. Dark wide drums fields.
14. Bees low farm notes.
15. Plows beat rose cave.

**List 1A: High Predictability**

1. Blue eyes look nice.
2. All fish can swim.
3. Dead plants turn brown.
4. He stole third base.
5. Feet have five toes.
6. Clowns wear face paint.
7. Text books teach math.
8. Catch mice with cheese.
9. Hot fire burns quick.
10. Waves wash sea shores.
11. Most wasps will sting.
12. Dogs scratch their fleas.
13. Chefs fix fine food.
14. Tooth aches cause pain.
15. Starched shirts stay stiff.
16. Golf clubs sink putts.
17. Cats purr when stroked.
18. Red bug bites itch.
19. Store hay in barns.
20. Grooms wed June brides.

**List 2A: High Predictability**

1. Cars must use gas.
2. Rain falls from clouds.
3. Small shoes might hurt.
4. Loose screws come out.
5. Cows give fresh milk.
6. Stars fill night skies.
7. Soap gets off dirt.
8. Please pass my plate.
9. Bald heads are smooth.
10. Ghosts may haunt homes.
11. Fans cheer at games.
12. Shot guns shoot ducks.
13. Large frogs jump far.
14. Some teens chew gum.
15. Sun wilts dry grass.
16. Sweat socks smell bad.
17. Boy scouts tie knots.
18. Oil fries corn chips.
19. March winds blow kites.
20. Bows trim wrapped gifts.

**List 3A: High Predictability**

1. Hang your hat here.
2. Sick kids need rest.
3. Coats keep you warm.
4. Eggs crack if dropped.
5. Young girls play dolls.
6. Old men walk slow.
7. Weeds grow too fast.
8. Thieves don't like jail.
9. Grease spots stain clothes.
10. Birds hunt earth worms.
11. Hear church bells chime.
12. Pigs love mud holes.
13. Vines climb brick walls.
14. Land lords charge rent.
15. Wax shines wood floors.
16. Banks cash pay checks.
17. Watched pots won't boil.
18. Sharp thorns snag pants.
19. Oak trees shade yards.
20. Wolf packs chase deer.

**List 4A: High Predictability**

1. Green lights mean go.
2. Noon is lunch time.
3. Big smiles show teeth.
4. Trucks drive long miles.
5. Death brings deep grief.
6. Steel makes strong beams.
7. Seat belts save lives.
8. Jet planes leave trails.
9. Snake skin has scales.
10. Who found her purse?
11. Ice cream tastes sweet.
12. New brooms sweep clean.
13. Round balls bounce high.
14. Ear plugs block noise.
15. Ink pens write well.
16. Rock groups sing loud.
17. Freight trains ride rails.
18. Swans float on lakes.
19. Tire tread grips roads.
20. Hair gel sets curls.

**List 1B: Zero Predictability**

1. Eyes plants catch stiff.
2. Starched purr text sting.
3. Tooth wash look math.
4. Cats hot cause barns.
5. Fine blue when fleas.
6. Bug fish most stroked.
7. Will dead face nice.
8. Books scratch feet shores.
9. Stay burns bites cheese.
10. Red June hay paint.
11. Five have sea itch.
12. Wed teach can pain.
13. Fire chefs mice quick.
14. Aches clowns turn food.
15. Store grooms all swim.
16. Third wasps sink base.
17. Shirts he golf toes.
18. In fix stole brides.
19. With wear their putts.
20. Dogs clubs waves brown.

**List 2B: Zero Predictability**

1. Tie cars chew out.
2. Falls sweat guns knots.
3. Fans ghosts loose dirt.
4. Bald blow pass grass.
5. Wilts shot large bad.
6. Shoot soap oil games.
7. Teens from rain hurt.
8. Screws corn night smooth.
9. Smell stars dry homes.
10. Come sun small gas.
11. Might at trim chips.
12. Give must winds gifts.
13. Please cows socks plate.
14. Cheer fries some skies.
15. Bows boy shoes clouds.
16. Gets are off gum.
17. May frogs wrapped milk.
18. Use march jump kites.
19. Heads fill fresh far.
20. My haunt scouts ducks.



### List 3B Zero Predictability

1. Church vines mud slow.
2. Lords wolf sick holes.
3. Play weeds pigs jail.
4. Birds old grow dolls.
5. Earth hear pay rest.
6. Men hat wax deer.
7. Keep banks young here.
8. If won't snag dropped.
9. Cash sharp need worms.
10. Love thorns girls floors.
11. Land you don't clothes.
12. Your like pots fast.
13. Stain chase eggs pants.
14. Shade bells spots warm.
15. Grease too walk checks.
16. Packs crack kids yards.
17. Brick hang watched chime.
18. Wood charge trees boil.
19. Thieves oak hunt rent.
20. Climb shines coats walls.

### List 4B: Zero Predictability

1. Sweep trucks mean curls.
2. Is grips ice go.
3. Write death hair sweet.
4. Gel swans rock grief.
5. Smiles ride balls noise.
6. Sets tastes groups beams.
7. Brings noon ear miles.
8. Snake new ink lakes.
9. Block jet lunch teeth.
10. Plugs sing pens roads.
11. Brooms freight lights loud.
12. Bounce has show purse.
13. Tread cream deep rails.
14. Leave drive her time.
15. Float belts big trails.
16. Long save who scales.
17. Skin tire planes lives.
18. Steel green round high.
19. On makes found clean.
20. Seat trains strong well.



Hearing Aid Research Laboratory  
4055 North Park Loop  
Memphis, TN 38152  
phone: (901)678-5848  
fax: (901)525-1282  
[www.harlmemphis.org](http://www.harlmemphis.org)