
**Learner Outcomes**

Each reader of this article should be able to

- Explain how cognitive deficits that accompany aging can affect speech understanding.
- Name two neurocognitive tests that assess speed of processing.
- Identify the neurocognitive test demonstrating the strongest association with sentence test performance in a group of older adults.

1. Two age-related cognitive deficits that may affect speech understanding in older adults are:
   - memory loss and speed of processing declines
   - verbal recall and declining IQ
   - working memory and speed of processing declines
   - speed of processing and decision-making declines

2. Specific cognitive deficits may be associated with lack of benefit from hearing aids in some older adults because:
   - cognitive limitations increase difficulty learning to use hearing aids
   - speech processed through hearing aids may be cognitively demanding
   - poor recall makes remembering instructions difficult
   - speech in noise is more challenging with hearing aids

3. A computerized working memory test that has been used with functional MRI studies of brain function is the:
   - N-Back Test
   - Self-Ordered Pointing Test
   - WAIS-III Digit Span subtest
   - WAIS-III Letter-Number Sequencing subtest

4. The WAIS-III Letter-Number Sequencing subtest (LNS) measures:
   - attention
   - visual working memory
   - auditory working memory
   - verbal working memory

5. Neurocognitive tests in this study that assessed speed of processing included:
   - Conners’ Continuous Performance Test and Brief Test of Attention
   - Self-Ordered Pointing Test and WAIS-III Digit Span subtest
   - California Verbal Learning Test-II and WASI IQ test
   - Choice Reaction Time and WAIS-III Digit Symbol Coding test

6. Auditory items from neurocognitive tests were:
   - recorded speech presented via earphones
   - live voice
   - recorded speech presented via loudspeaker
   - no tests with auditory items were used

7. Speech recognition materials were equated for difficulty by varying:
   - presentation levels
   - time compression
   - signal-to-noise ratios
   - low-pass filtering cutoff frequencies

8. The three cognitive components of the principle component analysis:
   - accounted for 61% of the total variance of the common sentence recognition score (CSRS) results
   - were derived from age-adjusted individual cognitive test scores
   - reduced ten individual cognitive test scores to three factors not reported by Vaughn et al (2006)
   - reduced ten individual cognitive test scores to three cognitive factors

9. In this study, age, hearing loss, and cognitive variables accounted for what percentage of the variance of CSRS results?
   - 28%
   - 42%
   - 65%
   - 80%

10. The neurocognitive measure that demonstrated the strongest association with sentence performance was:
    - LNS
    - N-Back Test
    - Conners’ Continuous Performance Test
    - California Verbal Learning Test-II