### Guidance Document

**Listening in Spatialized Noise-Sentences (LiSN-S) Test**

<table>
<thead>
<tr>
<th>Availability:</th>
<th>This test is available on the SoundScouts™ website Listening in Spatialized Noise-Sentences (LiSN-S)</th>
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</thead>
<tbody>
<tr>
<td>Classification:</td>
<td><strong>Supplemental</strong>: Friedreich’s Ataxia (FA)</td>
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</table>
| Short Description of Instrument: | **Construct measured**: Speech perception  
**Administered by**: Audiologists  
**Intended respondent**: Participant  

The LiSN-S is an adaptive, virtual-reality, diagnostic speech test that measures speech perception ability in noisy environments. It also measures the ability of children to use the spatial cues that normally help differentiate a target talker from distracting speech sounds.  

LiSN-S assesses an individual’s hearing comprehension in four different conditions, where the target speech comes directly from the front:

- **Condition 1**: the competing noise is composed of different voices coming from the left and right sides.
- **Condition 2**: the competing noise is composed of the same voice as the target speech but coming from the left and right sides.
- **Condition 3**: the competing noise is composed of different voices than the target speech and coming from the front as target speech.
- **Condition 4**: the competing noise uses the same voice as the target speech and coming from the front as target speech. |

| Comments/Special instructions: | **Scoring**: Performance is measured as two SRT measures and three “advantage” measures. These advantage measures represent the benefit in decibels gained when either talker, spatial, or both talker and spatial cues combined, are incorporated in the maskers.  

This use of difference scores minimizes the effects of between-listener variation in factors such as linguistic skills and general cognitive ability on LiSN-S performance.  

**Administration**: 5 minutes - 20 minutes |

Cameron S, Dillon H. Development of the Listening in Spatialized Noise-Sentences Test (LiSN-S). Ear Hear. 2007 Apr;28(2):196-211.  

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Cameron S, Dillon H. The listening in spatialized noise-sentences test (LiSN-S): comparison to the prototype LISN and results from children with either a suspected (central) auditory processing disorder or a confirmed language disorder. J Am Acad Audiol. 2008 May;19(5):377-91.


Document last updated: August 2022