

The Ecological Validity of Intelligibility Assessment
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Ecological validity refers to the “relation between real-world phenomena and the investigation of these phenomena in experimental contexts” (Schmuckler, 2001, p. 420). In a typical clinical assessment of intelligibility, our interest is both efficiency of data acquisition and interpretability of the data. These goals, however, may necessitate the use of a less than representative speech sample, and may cause one to wonder how much the sample tells us of the individual’s functioning in society.

This study was conducted to determine the representativeness of typical intelligibility assessments. Specifically, the research question posed was: “Which of three currently used intelligibility tests most accurately predicts everyday listeners’ perceptions of the speech of an individual with moderate to severe spastic dysarthria?”

One hundred listeners were recruited. They rated and/or transcribed a conversational speech sample, the Kent Phonetic Contrast Test, the SIT, and the Unpredictable Sentence Intelligibility Test (USIT). Multiple linear regression was performed to determine which factor most accurately predicted listener perception of conversational speech.

Results of the multiple regression revealed that only the scores on the USIT significantly predicted intelligibility ratings ($p = .022$). There was also a significant negative correlation between perceived listener effort and listener rating of conversational intelligibility ($p = .000$).