AZBIO Sentence Accuracy for English as a Second Language Adults in Quiet and Background Noise
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Abstract
The objective of this study is to examine indications of a significant difference in listening ability between native English speakers and English as a Second Language (ESL) students in quiet and background noise, specifically on the AZBIO Sentence test. Three Language groups were analyzed: Korean, Portuguese, and Spanish. AZBIO lists were used to assess ESL students’ ability to repeat sentences. An analysis of errors was completed to determine variance and similarities between the four language groups. Native English speakers had no difficulty repeating sentences in either condition, ESL students’ data suggested more difficulty in both quiet and background noise and a variance in age of acquisition of English.

Outline
1. Introduction
   a. How I got involved
   b. Definitions of key terms
   c. Background research
   d. Research questions
      i. Is there a difference between ESL scores in background noise compared to scores in quiet?
      ii. Is there a difference between overall scores among the ESL groups?
      iii. Does age of acquisition have an effect on overall score?
2. Methods
   b. Data collection
      i. All tests prerecorded and given at the same loudness level.
   c. Data analysis
      i. Confirmed previous research and provided new statistically significant findings
3. Results
   a. Scores in background noise were significantly lower than scores in quiet.
   b. The scores of the three groups were significantly different from each other.
   c. Age of acquisition made a significant difference on overall score.
4. Conclusions
   a. Summary
   b. Clinical implications
   c. Further research
5. Acknowledgments
References


In this study of second language acquisition it was found that words acquired earlier in language development showed processing advantages in adult language.


This study reviews strong evidence that bilinguals have a deficit in speech perception for their second language when under unfavorable listening conditions.


This research found that early and late successive bilinguals scored significantly lower on verbal memory tasks than the simultaneous bilinguals. This suggests an age of acquisition effect among bilinguals.


The conclusion of this study was that 10 of the lists are equivalent and are a valid measure of speech recognition that can be used for both cochlear implant qualification testing and programming. This validates our choice to use the AZBIO sentence tests to measure speech perception accuracy and shows that our results have implications on the candidacy for cochlear implants.


This study found that bilingual listeners displayed significantly poorer performance when perceiving nonnative language sentences in quiet and in noise relative to monolingual listeners.


This article cited previous research investigating the effects of noise on speech reception thresholds which showed that late bilinguals had significantly worse performances on the Hearing in Noise Test (HINT) than monolingual English speakers.