

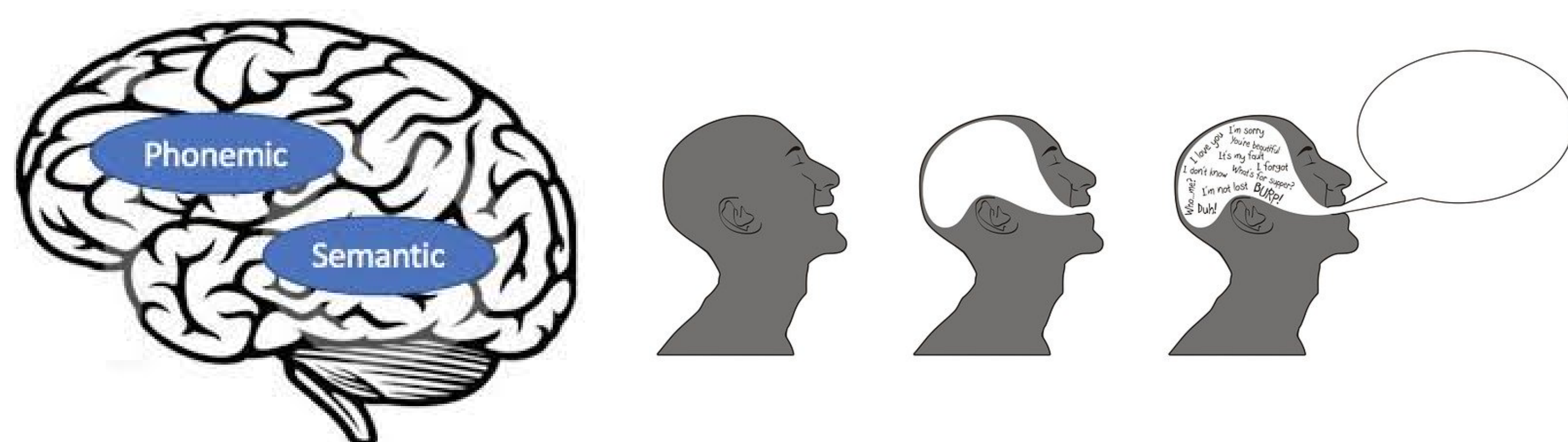


COMPARISON OF VERBAL FLUENCY BETWEEN INDIVIDUALS WITH NORMAL HEARING AND HEARING IMPAIRMENT

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Introduction

- Verbal fluency - skill and speed of finding words and making semantic and phonetic connections between them (Soltani et al., 2019).
- Tasks : Phonemic task (eg: /a/); Semantic tasks (eg: Animals)
- Hearing impairment → Lack of stimulus input and neural network activity → cognitive functions affected → Reduced verbal fluency performance (Deal et al., 2015)

Objective

To explore and compare the verbal fluency performance of individuals with normal hearing and hearing impairment

Methods and Materials

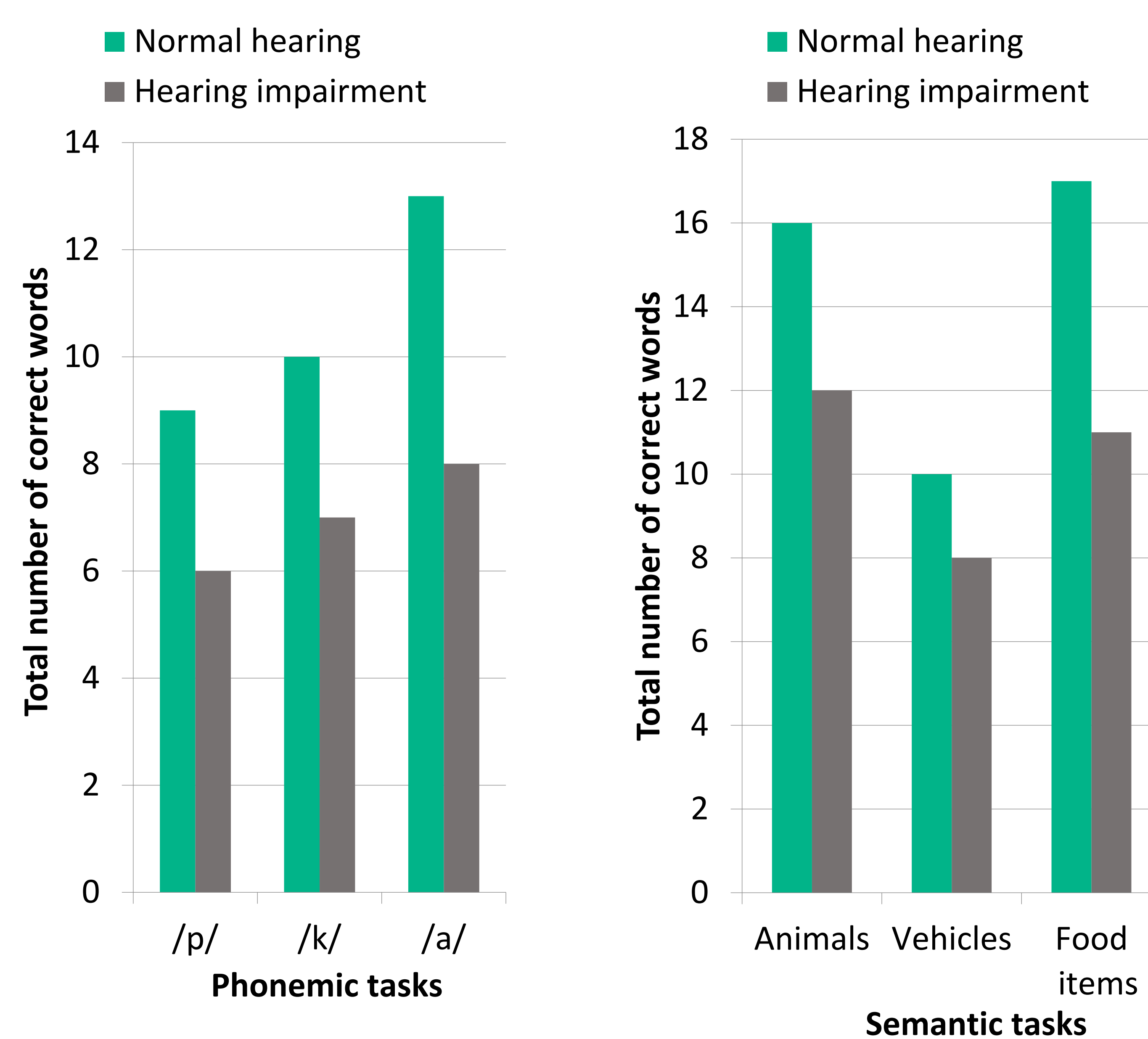
- Cross – sectional study design
- 38 normal-hearing individuals and 38 individuals with hearing loss - 40 to 60 years.
- Approval obtained from the IEC (IEC No: IEC 192/2022) and CTRI (CTRI/2022/11/047503)
- Inclusion criteria : Native Kannada speakers and must pass ACE-III
- Exclusion criteria : Significant medical history and profound hearing loss
- Two tasks: Phonemic tasks (/p/, /k/, /a/); Semantic fluency tasks (Animals, Vehicles, and Food items).
- Outcome measure: Total number of correct wordx



Scan this QR code for references

Results and discussion

- Individuals with hearing loss performed poorer than normal hearing individuals ($p < 0.001$).
- Poor performance - difficulty in acquiring and updating the lexicon and reduced auditory experiences (Classon et al., 2014; Deal et al., 2015; Santos et al., 2014).
- Better in the semantic fluency than phonemic fluency task
- It follows a hierarchical organization in memory and places fewer load on working memory (Lodeiro-Fernández et al, 2015).



Conclusions

- Verbal fluency test - prognostic tool
- Determine the impact of hearing loss on lexical and semantic memory and executive functions
- To add verbal fluency tasks in the routine audiological evaluation.