



INTRODUCTION

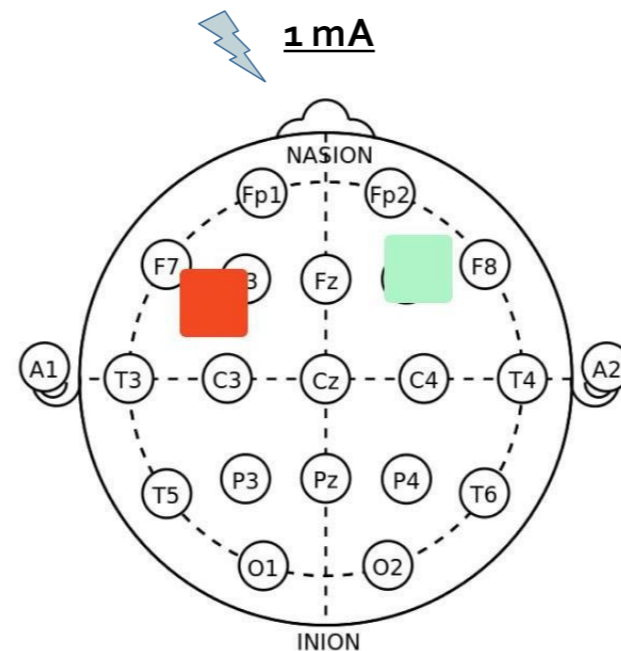
Aphasia is an acquired language disorder frequently caused by a stroke. Patients experience impairments of various aspects of their language system.



GLOBAL APHASIA

Global aphasia is the most severe type of aphasia. Patients experience difficulties with all aspects of language. Comprehension, naming, spontaneous speech and repetition are significantly impaired

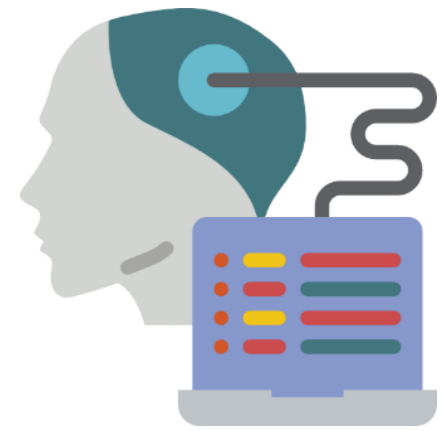
ANODE
Broca's area (f5)



CATHODE
contralateral frontopolar cortex area (af4)

TRANSCRANIAL DIRECT CURRENT STIMULATION

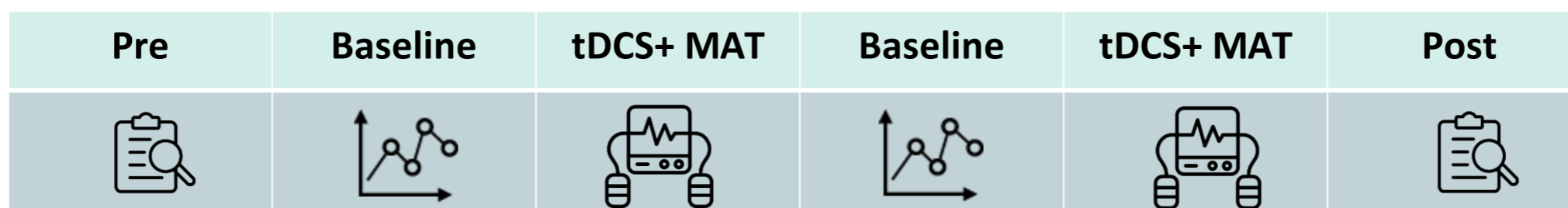
Transcranial direct current stimulation (tDCS) is a non-invasive tool that induces neuromodulation in the brain. Some studies have been reported in aphasia with stroke patients



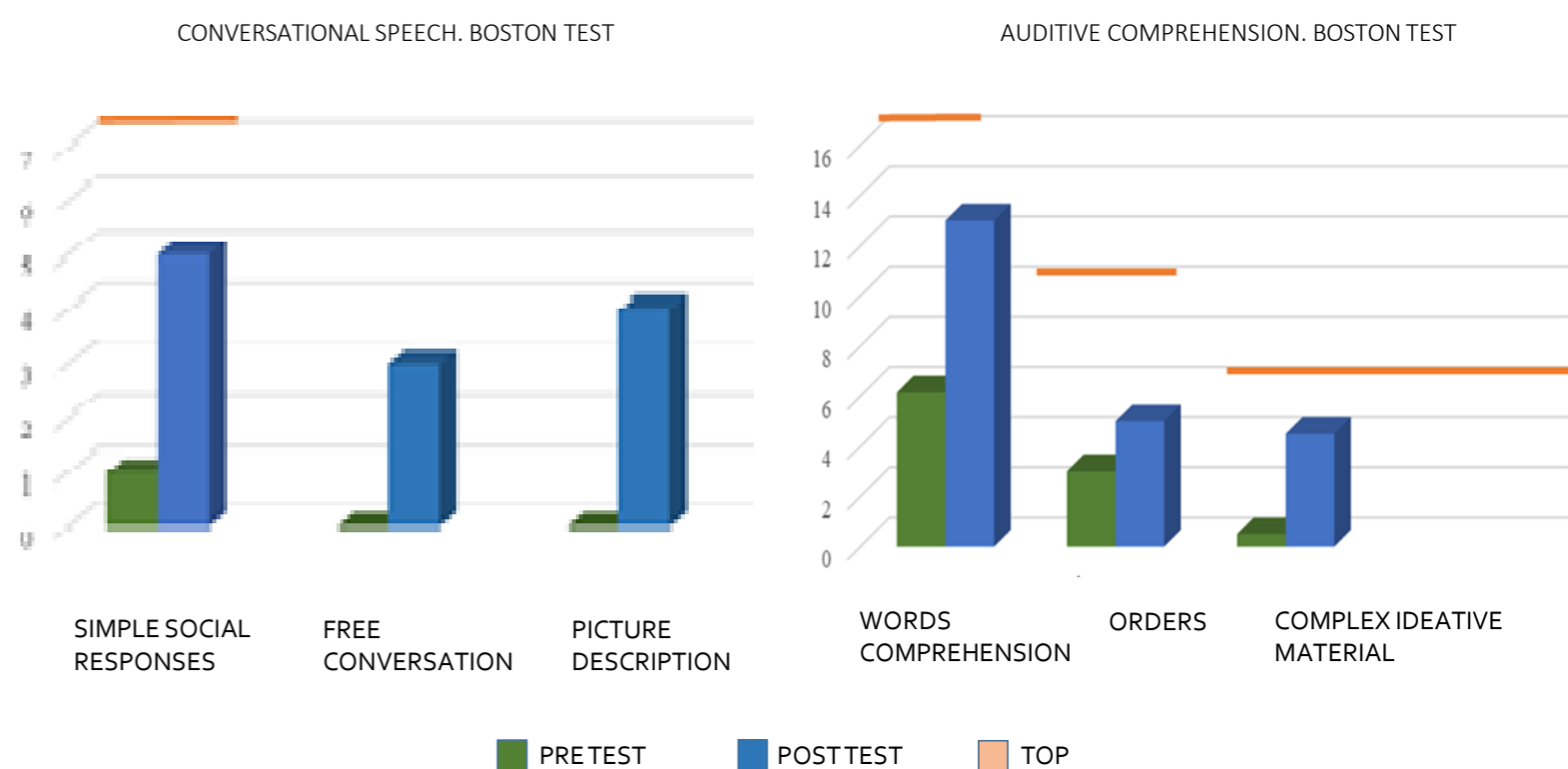
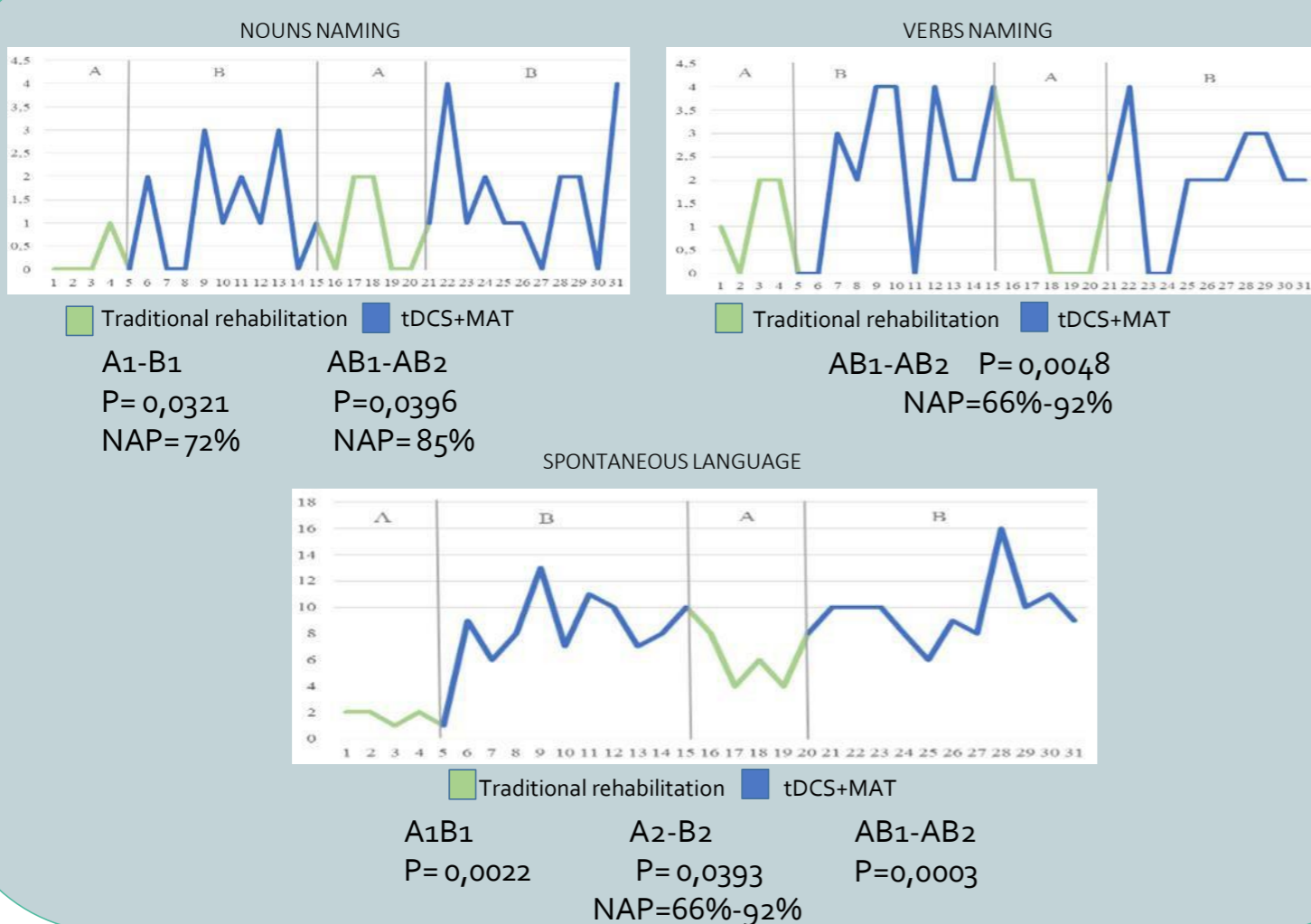
Studies that explored the effects of tDCS on aphasia and highlights evidence of positive effects for chronic post-stroke patients

METHOD

Design: An ABAB design was used. A standardised and non-standardised assessment were carried out.
Participant (n=1): Female, 53 years old. Global Aphasia. Spontaneous intracerebral haemorrhage in the left hemispheric.
Intervention: 11 baseline sessions + 20 sessions based on conversational speech and motor action therapy (MAT) with Tdcs



RESULTS



DISCUSSION

Fluent speech: tDCS+ Conversational therapy improve it. Marangolo et al (2013)
Nouns naming: Good results. tDCS results maintained over time. Marangolo et al (2019)
Verbs naming.: Motor action therapy, Bruce C, (2019) +tDCS better results

CONCLUSIONS

Proposed treatment may improve aspects such as verbal fluency; naming of nouns and actions in stroke patient with global aphasia.

REFERENCES

1. Bruce C, Newton C. "What's cooking?" A comparison of an activity-oriented and a table-top programme of therapy on the language performance of people with aphasia. *Int J Lang Commun Disord.* 2019;54(3):430-44
2. Biou E, Cassouesalle H, Cogné M, Sibon I, De Gabory I, Dehail P, et al. Transcranial direct current stimulation in post-stroke aphasia rehabilitation: A systematic review. *Ann Phys Rehabil Med.* 2019;62(2):104-121.
3. Branscheidt M, Hoppe J, Zwitserlood P, Luzzi G. tDCS over the motor cortex improves lexical retrieval of action words in poststroke aphasia. *J Neurophysiol.* 2018;119(2):621-630.