Open Brain and AI: Overview

- 1. Multilingual analysis: English, Spanish, Norwegian, Swedish, Greek, Italian and other major languages.

- 2. Analyzes and transcribes spoken and written speech, e.g., cookie-theft picture description tasks, discourse and connected speech productions.
  - Morphology
  - Syntax
  - Lexicon
  - Semantics
  - Discourse

Score Written Text Productions
The purpose of this assessment is to evaluate written productions and generate a report on an individual's language functioning.

Transcribe and Analyze Speech Recordings
The purpose of this assessment is to evaluate speech productions (recordings) and generate a report on an individual's language proficiency.

Clinical Tools
This page provides clinical tools for scoring the language performance of an individual with respect to spelling, phonology, and morphology.

Citing Info and Disclaimers
Please read this information first. You can find more information on how to cite and use these tools here.

Morphosyntactic Measures

Morphophonological Analysis

- **Utterance length**

- *Phonemes-to-word ratio:* e.g., Do speakers prefer long or short words?

- *Content words*: e.g., Nouns, verbs, adjectives, and adverbs.

- *Function Words*: e.g., Conjunctions, e.g., and, or, and, but Prepositions, e.g., de, in, pre and of, Determines, the and a/ an, Pronouns such as he/she/it.

- *Part of Speech Ratio*: Content to function word ratio nouns to vowels, etc.

- *Morphological and semantic information about the gender (e.g., male, female, neuter), person (first, second, third), number (e.g., singular, plural), and time (e.g., present, past).*

Syntactic Analysis

- *probability estimates of syntactic constituents* (e.g., noun phrases and verb phrases),

- *syntactic complexity* (e.g., dependency depth),

- *syntactic roles*

- *the ratio of coordinated, subordinated, and reduced sentences,*

- *the number of active and passive sentences,*

- *counts of dependencies* (e.g., average dependencies per sentence)

(Fraser et al., 2014, Themistocleous, Ficek, et al., 2021, Themistocleous, Webster, et al., 2020)