## Motivation

- Speech, language, and communication disorders challenge individuals' ability to express themselves effectively and participate in social interactions, leading to social isolation, depression, and inferior quality of life.
- Impaired speech, language, and communication can be a symptom of more severe conditions, such as Alzheimer's Disease, brain tumors, stroke, and neurogenic developmental conditions.
- Thus, accurately assessing speech, language, and communication abilities is crucial for effective
  - Diagnosis,
  - Prognosis
  - Treatment/Therapy efficacy assessment.

## Typical Neurocognitive Assessment

**Table 1** Cognitive domains and subdomains involved in the neurocognitive assessment (Lezak, 1995).

Cognitive Domains	Subdomains	C o g n i t i v e Domains	Subdomains
Memory	Immediate memory, short-term memory (including free recall, cued recall and recognition); consolidation and retrieval of long-term memories (explicit/declarative memory including episodic memory and semantic memory; implicit/non-declarative memory including procedural memory)	Orientation	Awareness; time; place; body orientation; finger agnosia; directional left and right orientation; space
Language	Expressive language (including naming; word finding; fluency; grammar and syntax) and receptive language	Perception	Visual perception; Visual inattention; visual scanning; color perception. Auditory perception; Auditory acuity; discrimination; inattention; auditory verbal perception; nonverbal perception.
Attention	Sustained attention; divided attention; selective attention; processing speed; attentional capacity; sustained attention; divided attention; selective attention; processing speed	Executive Functions	Planning; organizing; decision making; responding to feedback/error correction; overriding habits/inhibition; self-monitoring; mental flexibility; emotional regulation volition; planning; decision making; purposive action; self-regulation; effective performance
Reasoning and Concept Formation	Reasoning: verbal reasoning. Concept formation; sorting; sort and shift. Mathematical procedures. Calculations	Construction and Motor Performance	Drawing (e.g.; copying; free drawing); assembling and building; motor skills