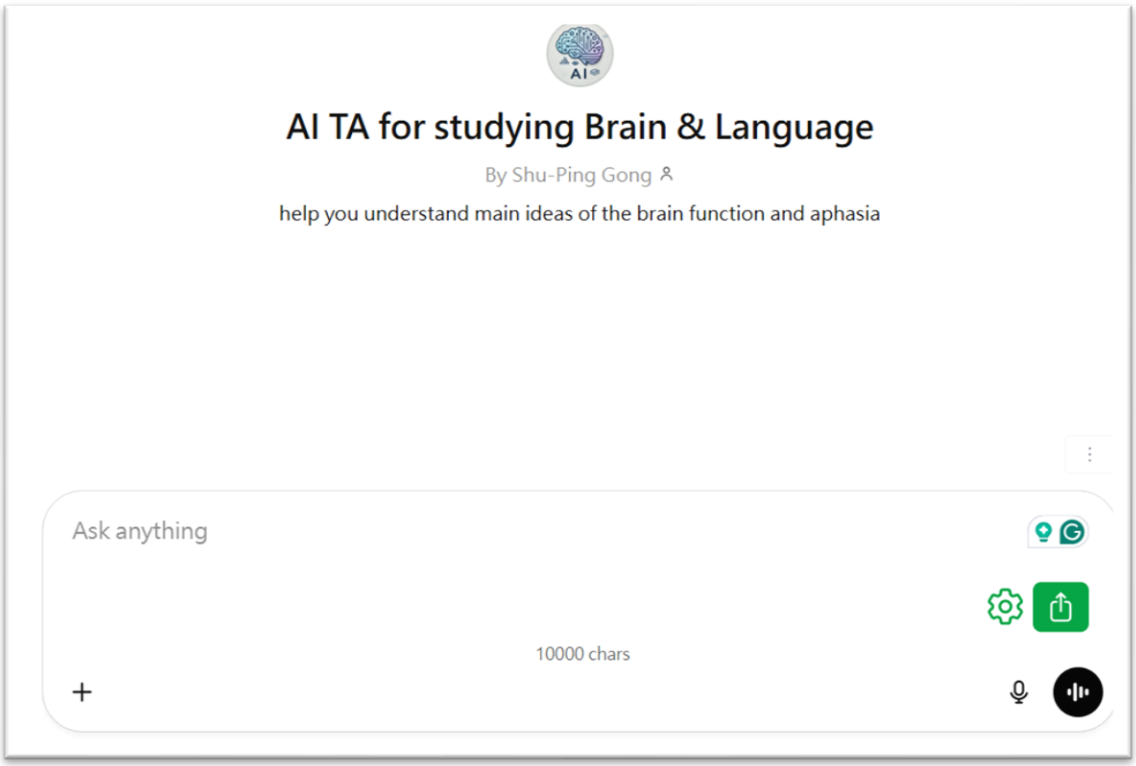
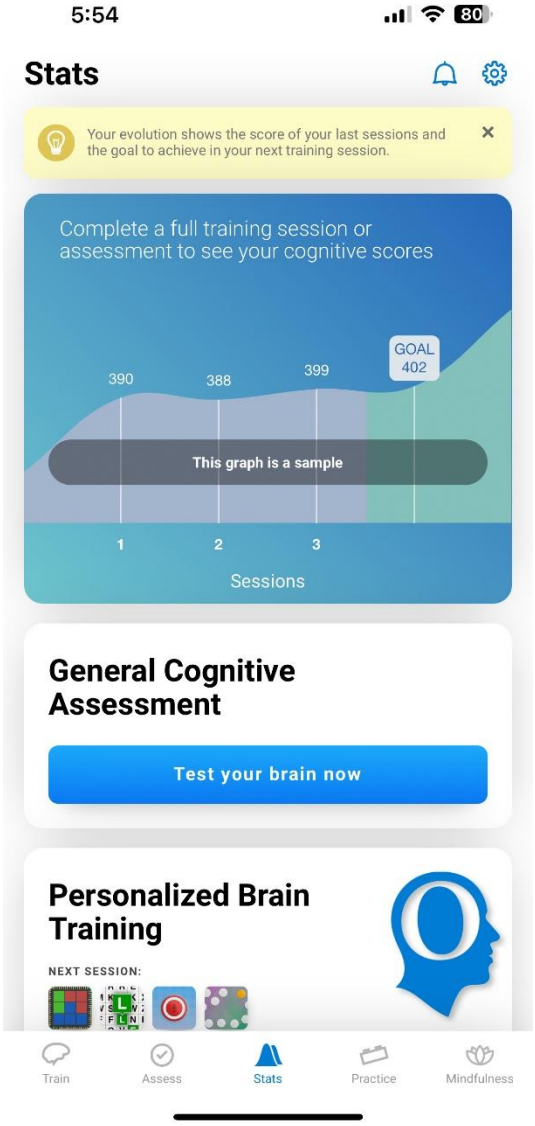
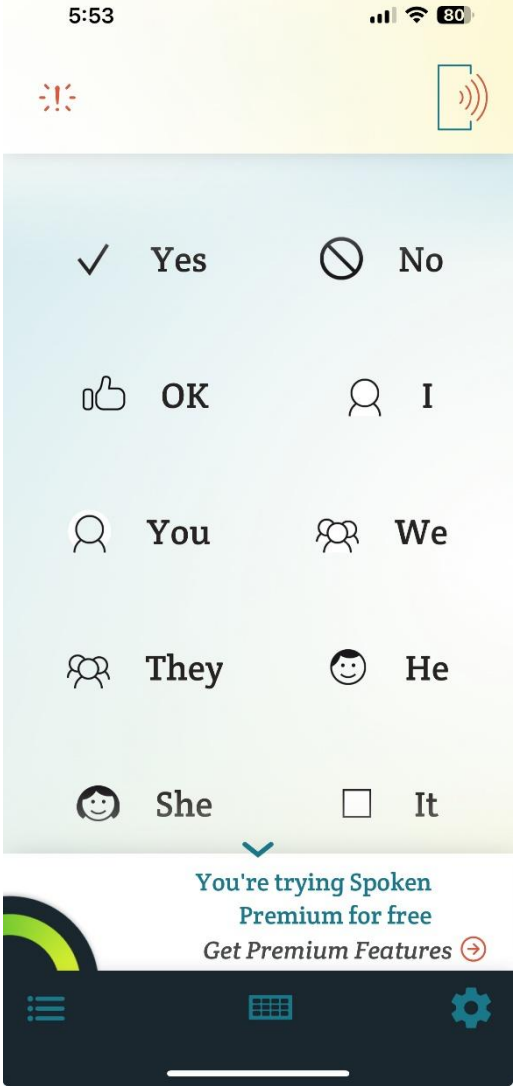
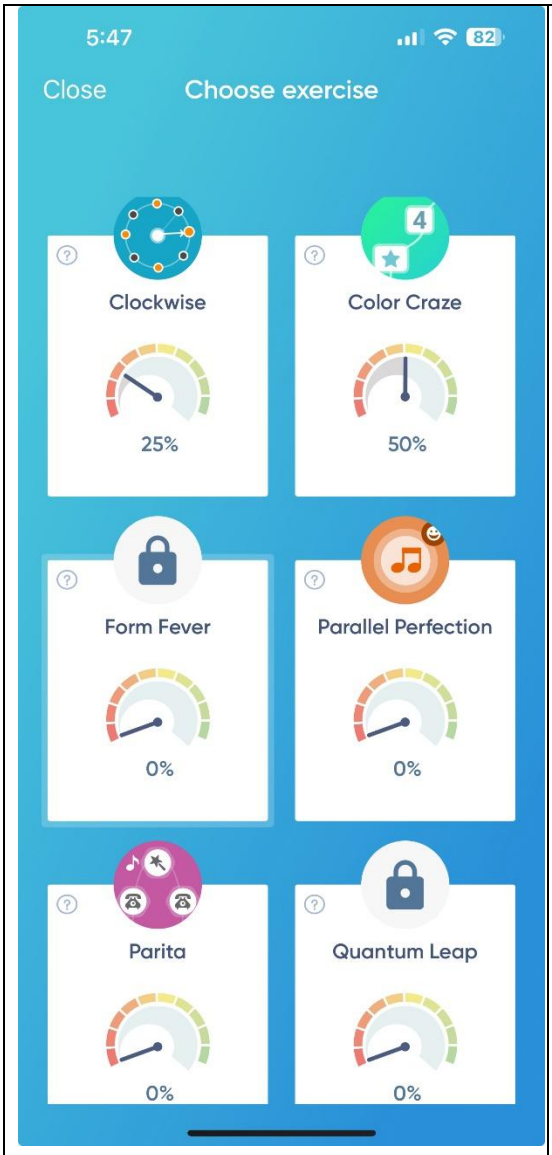
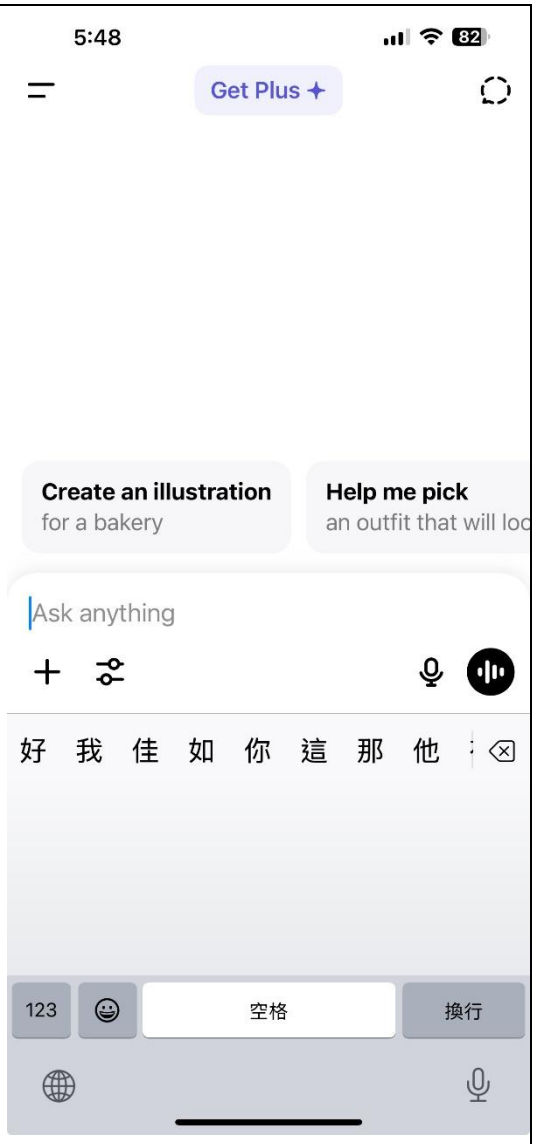
附件一：為課程所創建 AI 小助教



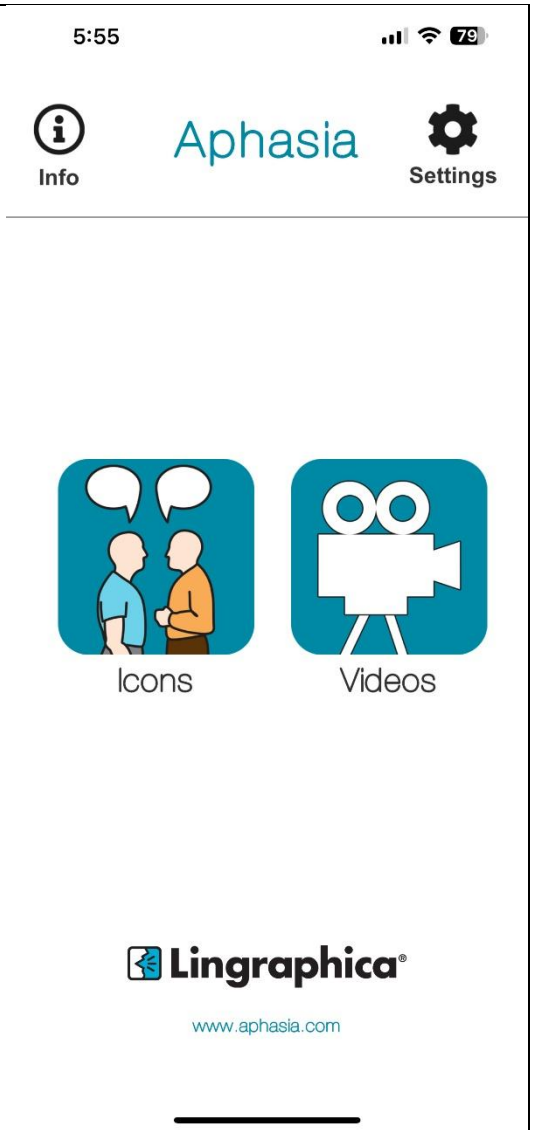
附件二、活動照片

	
CogniFit 大腦認知訓練 AI 工具	Be My Eye 視覺辨識 AI

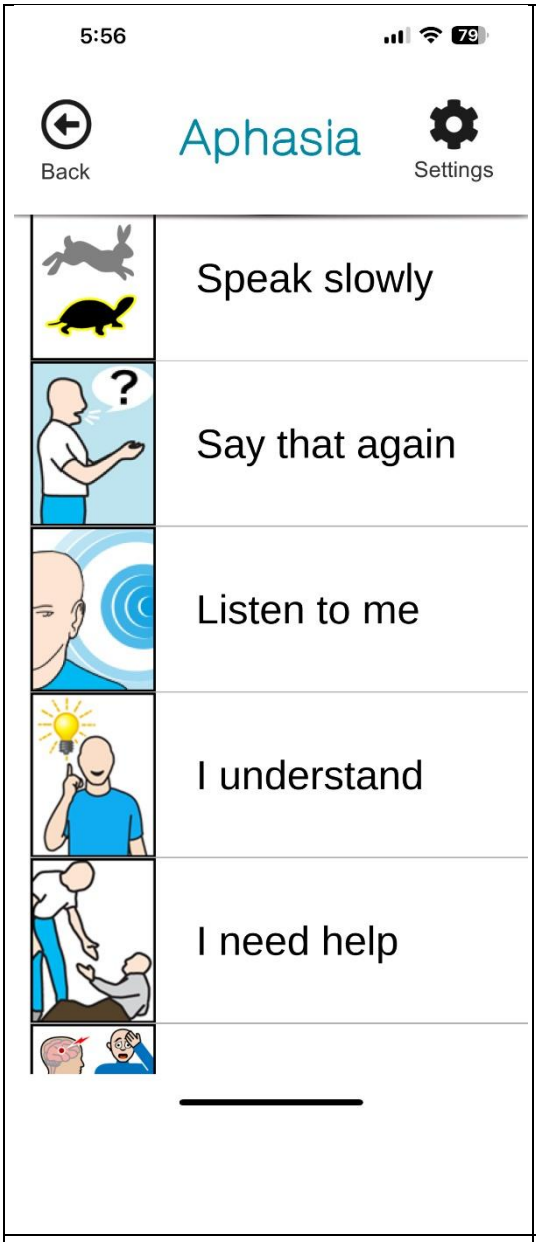
	
Speak AI 語音 AI 對話工具	Spoke AAC 工具

	
Neuronation 認知訓練 AI	ChatGPT AI 語音對話

Daily Activities 口語輔助系統



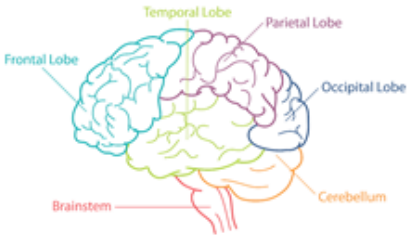
Aphasia 口語輔助系統

	
Aphasia 口語輔助影音系統	Aphasia 口語輔助圖片系統

附件三、課程教材

Language and the Brain
(語言與大腦)

Instructor: Shu-Ping Gong

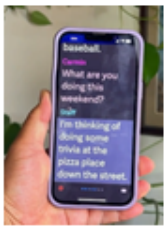


AI-powered tools designed to assist people with disabilities

Shu-Ping Gong
National Chiayi University

For Hearing Impairments

1. **AVA** – Real-time captions for conversations, meetings, and lectures.
   - **AVA** – Official Website
2. **Otter.ai** – AI-powered transcription for meetings and discussions.
   - **Otter.ai** – Official Website
3. **Google Live Transcribe** – Converts spoken words into text instantly.
   - **Google Live Transcribe** – Official Website
4. **Rogervoice** – Provides real-time subtitles for phone calls.
   - **Rogervoice** – Official Website



Try Otter Transcribe voice Notes

Download the app by your phone請用手機下載該app

For Visual Impairments

1. **Be My Eyes** – Connects visually impaired users with sighted volunteers for real-time assistance.
   - **Be My Eyes** – Official Website
2. **Seeing AI** – Microsoft's app that describes the surroundings, text, and people.
   - **Seeing AI** – Official Website
3. **Envision AI** – Reads text, recognizes faces, and describes objects using AI.
   - **Envision AI** – Official Website
4. **Lookout (Google)** – AI-powered app that helps identify objects and read text.
   - **Lookout (Google)** – Official Website

Try Be my eye

Download the app by your phone 請用手機下載該app

For Mobility Impairments

1. **Voiceitt** – AI-powered speech recognition for people with speech impairments.
   - **Voiceitt** – Official Website
2. **Dragon NaturallySpeaking** – Voice control for computers and dictation.
   - **Dragon NaturallySpeaking** – Official Website
3. **Tecla** – Enables hands-free device control for people with limited mobility.
   - **Tecla** – Official Website
4. **OpenAI's GPT-based Chatbots** – Assists with typing, generating content, and controlling devices via voice commands.
   - **OpenAI's GPT-based Chatbots** – Official Website

For Cognitive Disabilities

1. **AI-powered Predictive Text (Gboard, SwiftKey)** – Helps with writing and communication.
   - **Gboard** – Official Website
   - **SwiftKey** – Official Website
2. **CogniFit** – AI-based cognitive training and brain exercises.
   - **CogniFit** – Official Website
3. **RemindMeCare** – AI-driven digital memory aid for dementia and Alzheimer's.
   - **RemindMeCare** – Official Website
4. **Google Assistant / Siri / Alexa** – Voice assistants that help with daily tasks.
   - **Siri** – Official Website
   - **Alexa** – Official Website
   - **Google Assistant** – Official Website

For Daily Assistance & Smart Home

1. **Google Home / Amazon Echo** – Smart home control via voice commands.
   - **Amazon Echo** – Official Website
2. **Smart Doorbells (Ring, Nest Hello)** – Provides visual/audio alerts for those with impairments.
   - **Ring** – Official Website
   - **Nest Hello** – Official Website
3. **Wheelmap** – AI-assisted map for accessible locations worldwide.
   - **Wheelmap** – Official Website
4. **WayAround** – Uses smart tags for labeling and identifying objects for blind users.
   - **WayAround** – Official Website

AI-powered tools for aphasia diagnosing and language assessment

- The integration of AI in supporting individuals with aphasia and enhancing language assessment processes,
- offer personalized therapy, adaptive platforms, and efficient evaluation methods.

- Open Brain AI
- Spoken - Tap to Talk AAC
- Lingraphica SmallTalk
- Pipplet Talent AI
- SmallTalk2Me

Open Brain AI

SmallTalk2Me

Open Brain AI

- A computational platform that utilizes AI techniques—including machine learning, natural language processing, and automatic speech-to-text transcription—to analyze multilingual spoken and written language.
- It supports clinicians in diagnosing and monitoring treatment progress for conditions like aphasia, dementia, and developmental language disorders.
- https://openbrainai.com/

Spoken - Tap to Talk AAC

- An augmentative and alternative communication (AAC) application designed to assist individuals with speech and language impairments, such as aphasia.
- It combines symbols, text, and voice output, using an artificial neural network to provide predictive text capabilities that learn from the user's speech patterns, facilitating personalized communication support.
- https://play.google.com/store/apps/details?id=com.spoken.app&hl=zh_TW

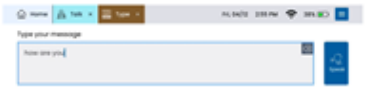
Try Spoken-tap to talk AAC
Try SymboTalk-AAC talker

Download the app by your phone 請用手機下載該app

Lingraphica SmallTalk

- A family of free apps offering practice for speech and communication on the go.
- They provide common graphic icons, phrases, and videos to help adults with aphasia communicate effectively.

- https://lingraphica.com/aac-communication-apps/



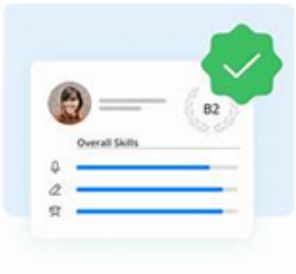
-Try SmallTalk Aphasia Female/Male
-Try SmallTalk Daily Activities

Download the app by your phone 請用手機下載該app

Pipplet Talent AI

- An AI-powered language assessment tool that evaluates oral and written skills across multiple languages.
- It provides instant results aligned with the Common European Framework of Reference for Languages (CEFR) and is utilized for efficient language proficiency testing in organizational settings.

- https://www.pipplet.com/product/talent-ai



SmallTalk2Me

- An AI-based English language assessment platform that assists recruiters in evaluating candidates' English skills and helps language schools place students in appropriate programs.
- It offers quick assessments with immediate results, enhancing the efficiency of language proficiency evaluations.
- https://smalltalk2.me/assessment

NeuroNation App

- Cognitive training software applications developed by the German healthcare technology company Synaptikon GmbH.
- https://www.neuronation.com/
- A multi-modal cognitive training application for prevention of neurodegenerative diseases and cognitive enhancement.

附件四、課堂內利用 AI 所標誌的線上試題範例

語言與大腦 大學部外語系應用外語組二年級甲班

儀表板 / 我的課程 / 11323720029 / Week 04: Aphasia (I) / Quiz 03: Aphasia (I) / 預覽

試題1
尚未回答
配分10.00
標示試題
編輯試題

Which of the following is a key characteristic of Wernicke's Aphasia?

- a. Fluent speech but with neologisms and paraphasias
- b. Severely impaired repetition with good comprehension
- c. Difficulty with naming objects but otherwise intact language skills
- d. Slow, effortful speech with agrammatism

試題2
尚未回答
配分10.00
標示試題
編輯試題

Look at the following speech sample. What type of aphasia does it represent?

Is this some of the work that we work as we did before? . . . All right . . . From when wine [why] I'm here. What's wrong with me because I . . . was myself until the taenz took something about the time between me and my regular time in that time and they took the time in that time here and that's when the the time took around here and saw me around in it it's started with me no time and then I bekan [began] work of nothing else that's the way the doctor find me that way . . . .

- a. Conduction Aphasia
- b. Broca's Aphasia
- c. Wernicke's Aphasia
- d. Anomic Aphasia

試題3
尚未回答
配分10.00
標示試題
編輯試題

Look at the following speech sample. What type of aphasia does it represent?

kid . . . kk . . can . . . candy . . . cookie . . . caandy . . . well I don't know but it's writ . . . easy does it . . . slam . . . early . . . fall . . . men . . . many no . . . girl. dishes . . . soap . . . soap . . . water . . . water . . . falling pah that's all . . . dish . . . that's all.
cookies . . . can . . . candy . . . cookies cookies . . . he . . . down . . . That's all. Girl . . . slipping water . . . water . . . and it hurts . . . much to do . .Her . . . clean up . . . Dishes . . . up there . . . I think that's doing it [The examiner asks: What is she doing with the dishes?] discharge no . . . I forgot . . . dirtying clothes [?] dish [?] water . . . [The examiner probes: What about it?] slippery water . . . [?] scolded . . . slipped

- a. Broca's Aphasia
- b. Conduction Aphasia
- c. Anomic Aphasia
- d. Wernicke's Aphasia

試題4
尚未回答
配分10.00
標示試題
編輯試題

What is the main neurological cause of Conduction Aphasia?

- a. Damage to the arcuate fasciculus
- b. Degeneration of the cerebellum
- c. Injury to the motor cortex
- d. Damage to the occipital lobe

試題5
尚未回答
配分10.00
標示試題
編輯試題

Which type of aphasia is primarily characterized by repetition deficits while maintaining good comprehension?

a. Conduction Aphasia
b. Global Aphasia
c. Broca's Aphasia
d. Wernicke's Aphasia

試題6
尚未回答
配分10.00
標示試題
編輯試題

Which of the following is a key characteristic of Conduction Aphasia?

a. Difficulty in understanding spoken language
b. Speech limited to only a few words
c. Severely impaired repetition despite fluent speech and good comprehension
d. Total inability to produce speech

試題7
尚未回答
配分10.00
標示試題
編輯試題

Which language test is commonly used to evaluate naming ability in aphasia patients?

a. Peabody Picture Vocabulary Test (PPVT)
b. Boston Naming Test (BNT)
c. Western Aphasia Battery (WAB)
d. Token Test

試題8
尚未回答
配分10.00
標示試題
編輯試題

Which therapy technique helps patients retrieve words by describing their characteristics?

a. Dichotic Listening Training
b. Repetition Therapy
c. Semantic Feature Analysis (SFA)
d. Phonemic cueing

試題9
尚未回答
配分10.00
標示試題
編輯試題

Which type of aphasia is characterized by severe difficulty in naming objects but relatively intact comprehension and fluency?

a. Anomic Aphasia
b. Pure Word Deafness
c. Global Aphasia
d. Transcortical Sensory Aphasia

試題10
尚未回答
配分10.00
標示試題
編輯試題

What is a common speech characteristic of Broca's Aphasia?

a. Non-fluent, effortful speech with agrammatism
b. Excessive speech with frequent repetitions
c. Fluent speech with frequent neologisms
d. Perfect grammar but difficulty in understanding spoken language