



What is MRAP for Apraxia?

Introduction:

The **Motor Reconnect Apraxia Program** is a complete program for people with apraxia that affects communication. MRAP takes advantage of the brain's neuroplasticity and previous ability to speak in order to maximize recovery of speaking and conversation.

The AphasiaToolbox Neuroplastic apraxia recovery mantra is:

- a. KNOW IT > THINK IT > PLAN IT > DO IT > PROCESS IT > REMEMBER IT (if you truly process it you will remember it and not need treatment for it.)
- b. It's not about what you say or do > it's about what you THINK
- c. Whenever possible, all productions by client are from his/her own memory-knowledge-generation.
- d. Maintain or establish eye contact for client responses. The client's attention, mental resources, and focus are on his thought process not on a mirror or on the ceiling or down at the desk, or on a photo, or on an app, etc.
- e. MRAP does not allow struggle; extra junk; imitating, nor does it use mirrors, tape recorders or apps. Use of these is at the discretion of the attending SLP or practice coach, however, their use should be discontinued ASAP.

Program Details: While the details below are in a bulleted list, implementation of the program is not linear. Each person with apraxia is different; apraxia affects each person differently; and each person recovers in different ways. The expertise of the SLP, in close collaboration with the practice coach and client, is critical in changing, modifying, challenging and staging steps in the MRAP program.

1. **Vocal fold** knowledge-plan-control

- a. Re-establish neural control for phonation. Separate jaw/mouth neural control from vocal fold control. Get rid of all extra junk. Accept only normal, relaxed jaw and phonatory movement. Emphasize keen attention paid to proprioception and sound.
 - b. METAPRAXIA
 - c. VIKING: Viking Perfect 123454321 (syllable structure knowledge); Viking Varied; Viking with an Attitude (incorporate pre-prosodic and syllable variation); Viking Vowels; Pulsed Viking (short-long vowels)
 - d. SCATPRAXIA
 - e. Optional: Vary Viking Vowels
2. **Jaw knowledge-plan-control-(begin to incorporate work on phonological aphasia)**
 - a. Exploit re-established knowledge, planning and skill for phonation to address same for jaw. Begin with 4 corner vowels (most distant from neutral position: / EE - ae - a - OO / .
 - b. METAPRAXIA
 - c. VOWELS: Around the mouth produced from memory by the client; Down and up;
 - d. Activity – client produces: / EE - ae - a - OO / > / EE - A - ae - a -O - OO / > / EE / i - A/e - ae - a -O - OO/oo / > / EE / i - A/e - ae - U - a - O - OO/oo / with help initially but from memory as soon as possible.
 - e. Begin work on phoneticizing (client is able to phonetically transcribe the vowels as they are introduced.
 - f. Activities- Client will:
 - i. Phonological decode > orthographic encode (SLP says vowel > client type symbol – no speech by client)
 - ii. Phonological decode > phonological encode (SLP says vowel > client says sounds from memory – no speech by client)
 - iii. Orthographic decode > phonological encode (client sees the symbol > client says sounds from memory – no help from SLP)
 - iv. Mental knowledge > phonological encode (client think of all the vowels and says them.
 - g. Optional: begin ORAL MOTOR COORDINATION
3. **Tongue, lip, velar knowledge-plan knowledge-plan-control**
 - a. METAPRAXIA
 - b. ORAL MOTOR COORDINATION
4. **Speech sound knowledge-plan-control**
 - a. METACOGNITION for sounds and syllables
 - b. PHONETICIZING: client is able to phonetically transcribe the vowels as they are introduced.
 - c. KEYBOARDING
5. **Limb control knowledge-plan-control**
 - a. METAPRAXIA
 - b. VISUAL ACTION THERAPY (VAT for MRAP): NOUNS- hand shapes; VERBS – movements; COMBINED – canonical sentence;
 - c. KEYBOARDING
 - d. NUMERACY

- e. YES-NO-DELICIOUS
- f. PHYSICAL TRAINING
- g. ASL FINGERSPELLING
- h. APPS

6. **Abulia-Initiation difficulty-adyynamic aphasia** knowledge-plan-control
 - a. METACOGNITION for initiation and getting started at the beginning.
 - b. EYE CONTACT
 - c. FAITH AND RHYTHM
 - d. SUBJECTIVE PRONOUNS > CONJUGATION
 - e. VIKING
 - f. WORK FROM MEMORY (imitation and external cueing are enemies to self generated initiation)
 - g. SCHWA INITIATED PHRASES
7. **Asymbolia** knowledge-plan-control
 - a. VAT for MRAP
 - b. PROMOTING APHASICS COMMUNICATIVE EFFECTIVENESS (PACE)
8. **Blending** knowledge-plan-control
 - a. VOWELS >>> DIPHTHONGS
 - b. ASL FINGERSPELLING
 - c. ORAL MOTOR COORDINATION
9. **Letter < > sound** knowledge-plan-control
 - a. METAPHASIA
 - b. PHONETICIZE
 - c. DECODE > ENCODE; ENCODE > DECODE
 - d. COORDINATE WITH KEYBOARDING: Ellipting Vowels;
10. **Syllable** knowledge-plan-control
 - a. INCREASING SYLLABLES
 - b. COMPOUND WORDS
 - c. MORPHING
11. **Sentence flow** knowledge-plan-control
 - a. CONJUGATION: Canonical Conjugation: Reconnect Conjugation of Copula; Reverse Question Conjugation;
 - b. SENTENCE PATTERNING
 - c. CONTRACTIONS
 - d. SCHWA INITIATED PHRASES