

# Flex Your Brain

Cards to stimulate cognitive flexibility,  
working memory and attention  
for adults and adolescents

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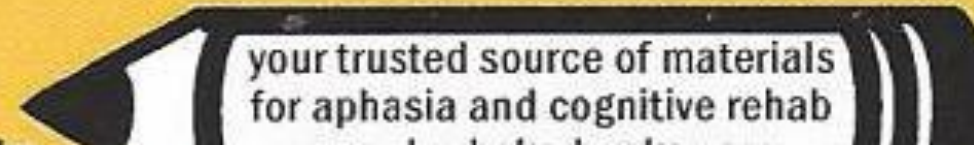
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for aphasia and cognitive rehab

## **Overview of Product**

Cards to stimulate cognitive flexibility, working memory,  
and attention for adolescents and adults

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The tasks on the cards apply the skills of cognitive flexibility, working memory, and attention by requiring the user to perform dual-process thinking. In other words, the user will be doing two things at the same time.

With these cards, we have found a way to engage our patients in challenging and interesting tasks while addressing their communicative goals. Users enjoy the card format and are curious to see the next question. Many have returned to their next session and requested to use the cards again.

## **Product Development**

The 80 cards were developed, refined, and field-tested for years with outpatients in the Center for Adult Communication Disorders, in the Speech & Language Pathology Department of the Beaumont Health System in Michigan.

These cards can be used as catalysts for achieving treatment goals and outcomes. The level of difficulty can be increased or decreased as needed by the clinician to meet the needs of the patient.

## **Overview of Use**

The cards can be used:

- with moderately to mildly-impaired adults and adolescents
- with a variety of diagnoses and with many variations
- to gradually move from the use of external strategies such as using fingers or taking notes to use internal strategies such as visualization and association
- as an intermittent task by switching between an activity and then answering a card
- as a task for individual or group treatment

## **Overview of Use**

The cards can be used:

- as a flashcard type of presentation in which the user must switch from one type of task to another in a fairly rapid fashion promoting higher-level cognitive flexibility.
- as a prospective memory task in which the user is given instructions to pick a card and answer later within a time or situational parameter.
- as an interrupter task in which a card is produced while the user is engaged in another task. He is asked to immediately handle the question on the card, then he can return to what he was doing thus simulating an interruption similar to what is encountered during daily interactions.

## **Suggestions for Treatment**

- Read the card to the user for auditory comprehension and integration.
- Ask the user to read the card for reading comprehension and integration.
- Have the user give answers in either verbal or written form.
- Initially, it may be helpful for the user to complete his response using paper/pencil. As he develops visualization strategies and skills to support cognitive flexibility and working memory, the user can decrease the external support.
- After the user completes a card, ask what strategies were employed to address retention skills.
- Let the user pick his own card from a pile.

## **Suggestions for Treatment**

- Repeat the information or let the user read the cards as many times as needed. As treatment progresses, begin reducing the number of repetitions to rely more on retention. It may be better to expand an answer or ask fewer questions.
- Provide the user with several cards to be initiated during the treatment session at various intervals to encourage time management skills.
- Have the clinician alternate answering the cards with the user. The clinician will purposely provide the user with occasional incorrect information that is to be identified by the user stimulating auditory integration.

## **Ways to Decrease the Level of Difficulty**

- Slow the rate of presentation and allow a break as needed.
- Give the user paper and pencil to work through the card.
- Allow time to process the question.
- Decrease the length of an answer.
- Omit an element of the question or otherwise shorten it.
- Ask the user to state in his own words what he is to do.
- Assist by starting the answer or working through it together.
- Pull out similar easier cards and present them together.



## **Ways to Increase the Level of Difficulty**

- Cards can be drawn randomly from the deck as opposed to being screened.
- Have the user hear or read the question once, then remove it.
- Impose a time limit on answering.
- Increase the length of the answer by adding elements to what is written on the card.
- Require one final answer without rehearsal.
- Instruct the user to keep his answer in mind and have him state it after a set period or after another task.
- Write the answer along with the question.

## **Suggestions for Group Work**

There are several possible presentations for groups:

- One person acts as moderator to read to everyone.
- Work together as a group or team on an answer.
- Deal 2-3 cards like a card game and discard after answering.
- Answer what you think someone else might say.
- Divide the group into teams for a competition.
- Time the answers.
- Give multiple answers for each card.
- Pick a card. Either answer it or pass it on which will require you to answer the next card.

## **From the Authors**

In 1978, Susan Howell Brubaker published her *Workbook for Aphasia* with Wayne State University Press. While an active clinician in the Speech & Language Pathology Dept., Beaumont Health System, Sue continued to write and publish. In 2008, and after starting **Brubaker Books**, Carolyn Doty and Lisa Mammoser, also working clinicians at Beaumont, joined the company as authors and consultants. All three have specialized in neurogenics with Beaumont's large outpatient program for their entire careers as certified speech-language pathologists. As a hands-on company, our goal is to provide you with the best tools to assist you in your treatment.

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Say every other word on this  
list to form 2 sentences:

*grapes wine grow is*  
*on from vines grapes*

Calculate this date:  
July 10<sup>th</sup> plus 2 weeks,  
minus 14 days,  
minus 6 days.

In alphabetical order,  
name 5 appliances.

Think of 3 tools, 3 street names, and 3 car brands.  
Say them in this order:  
a tool, a street name, a car.

Name 5 states moving from west to east that begin with vowels.



Continue the pattern by saying  
the next 4 in this sequence:

1 5 2 10 3 15

Continue the pattern by saying  
the next 4 in this sequence:

October 41 August 46

June 51

Name 5 salty foods and alternate that list with 5 sweet foods.

Touch a body part that you can see, then name a body part that you cannot see.  
Do this 4 times.

Describe yourself with 4 words without talking about your appearance. Each word must be at least 2 syllables.

What is 45 minutes  
plus 30 minutes  
minus 25 minutes  
divided by 2?

Continue the pattern by  
saying the next 4 in  
this sequence:

Q 4 R 8 S 16

Name the last 3 presidents  
and their wives from  
present to past.



Name 4 items, largest to smallest, you could find in your junk drawer.

Form a sentence with no more than 6 words in which 3 of the words have the same number of letters.

Count the number of letters in your first name, then in your last name. Subtract the smaller number from the larger one.

Say 5 products that begin with the letter C and name a different store at which each product can be purchased.

Say the letters of the  
alphabet backwards starting  
with *L* and ending with *A*.

Name a holiday in each of  
the months that start with  
*J* and *M*.

Create a sentence that contains  
4 words that rhyme.

Calculate this date:  
April 14<sup>th</sup> plus one week,  
minus 4 days,  
minus 1 week.



List 9 body parts, 3 each for  
the following letters:  
*E, H, and L.*

Say the letters of the  
alphabet backward starting  
with *Z* and ending with *M*.

Pretend you are playing 5  
musical instruments while you  
spell the name of each one.

Think of a song.  
Say the initial letter of the  
first 10 words in the song.

Explain how to make a  
grilled cheese sandwich  
backward in 5 steps.

Gesture 5 facial expressions  
and alternate them with  
gestures of 5 Olympic sports.

Say every third letter  
of the alphabet.

Name 5 things people donate  
and alphabetize them by  
their last letter.



Subtract the number in a baker's dozen from the number of cards in a standard deck.

Name 5 flowers in order by  
the number of letters  
in each word.

Say the letters of the word *peppermint* by starting with the 1<sup>st</sup> letter, then the last letter, then the 2<sup>nd</sup> letter, then the 2<sup>nd</sup> to last letter, etc.

Name 5 words that begin and end with the same letter and put them in alphabetical order.

Count by 4's starting with 33.  
Do this 8 times.

Alternate naming 5 cities in  
Europe with 5 American cities.

Think of 5 rooms in a house.  
Say each room and an item you  
can find in it. Each item must  
be taller than the one named  
from the previous room.

Name a state for each letter  
of the alphabet from *K* to *P*.



Give the total number of legs in  
2 horses, 3 chickens, 4 tripods,  
and 5 eagles.

How many total letters are  
in these four words:

*Winter, Spring, Summer, Autumn*

Say a 4-word sentence that  
does not include the letter A.

Spell your favorite  
snack food backward.

Name 5 celebrations that always occur on the same date and total those dates.

Spell the word *automobile*  
letter by letter and alternate it  
with the spelling of *motorcycle*.

Name 4 animals, smallest to largest, with 4 letters in each name.

Add together the digits in  
your address and zip code.



Alternate counting from  
1 to 26 with saying the  
letters of the alphabet.

List the words of this sentence  
from shortest to longest:  
*The weather will be stormy today.*

Recite the song  
*Happy Birthday*  
backward.

Say the days of the week in  
alphabetical order.

Form a sentence with at least  
5 words and 4 of them must  
be in alphabetical order.

Name your 5 senses and  
after each one, say its  
corresponding body part.

Name an animal for each  
letter of the alphabet from  
*A* to *G*.

Name 5 fish alphabetized by  
their last letter.



Name 5 kinds of balls used in sports activities ranging from smallest to largest.

Create a word chain of 5 words in which each word begins with the last letter of the previous word.

Name 5 items you associate with your favorite holiday. Say the words in alphabetical order.

Explain in 4 steps how to grow a vegetable, in reverse order.

List the words of this sentence  
from longest to shortest:  
*I went to the store.*

Say a 4-word sentence that  
does not include the letter A.

Sing a nursery rhyme and  
count each word as you sing.  
How many words did you sing?

Name the months of the year  
backward starting with April.



Add the following change:  
*6 pennies, 3 dimes,*  
*2 nickels, 3 quarters*

Spell your mother's first and last name backward.

Name colors with 3, 4, 5,  
and 6 letters in them.

Name 5 red fruits from  
smallest to largest.

Form a 4-word sentence  
with words of 1, 2, 3, and  
4-letters.

Add 6 words to the sequence:  
*rose, grass, tomato, lime*

Name 5 words that describe the weather and put them in alphabetical order.

If it is 1:00 PM now, what time was it  $3 \frac{1}{2}$  hours ago?



Say today's date in numbers.  
Say the date 6 days ago. Then  
say the date 6 days from today.

Alternate naming 5 things  
in a kitchen with 5 things  
in a garage.

Think of 3 words that do not rhyme and have the same double letters in them.

Spell in reverse order  
the name of your  
father's occupation.

Add together each digit  
in your phone number  
including area code.

What is 15 minutes plus  
20 minutes minus 10 minutes  
multiplied by 3.

Add together the number of tires on 4 unicycles, 3 bicycles, 2 tricycles, and 1 car.

If you walked for 20 minutes, shopped for 10 minutes and talked to a friend for 15 minutes and it is 5:00 now, what time did you start your activities?



Say the letters in the word *dictionary* by starting with the 1<sup>st</sup> letter, then the last letter, then the 2<sup>nd</sup> letter, then 2<sup>nd</sup> to last letter, etc.