

Additional Lifestyle Factors and Cognitive Stimulation

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Outline

4.6. Weight management

4.7. Alcohol

4.8. Cognitive stimulation through complex, purposeful and challenging activities

5. Cognitive Stimulation (participants get access to hundreds of ready to print cognitive stimulation activities)

5.1. Attention activities

5.2. Language activities

5.3. Spatial activities

5.4. Online activities and programs

5.5. Lifelong learning

5.6. Dual tasking allows cognitive stimulation to take place in typical exercise classes

What is the relationship between weight and cognitive ability?

- There is a correlation between being overweight or obese in middle adulthood and the chance of developing dementia.
- Why?

What is the relationship between weight and cognitive ability?

Being overweight or obese increases the chance of having:

- Stroke
- Diabetes
- More sedentary lifestyle
- Smoking
- Hypertension

What is the relationship between weight and cognitive ability?

But the correlations between being overweight/obese and dementia are smaller as we get older. This is probably because people tend to lose weight before developing clinical symptoms of dementia. Research has shown that this effect is stronger for women than men.

Chronic Pain

- Chronic pain increases the chance of depression, which may be a risk factor for dementia
- Chronic pain increases the chance of sleep problems, which may be a risk factor for dementia
- Activity levels may also be affected by chronic pain

Alcohol and the Brain

- Antioxidants
- Excessive alcohol consumption over long periods can increase chance of dementia (and a particular type known as Korsakoff's Dementia)
- There is evidence that moderate consumption (1-2 drinks, some days of the week) is associated with lower levels of dementia than non-drinkers, but some studies included people who drank heavily and then stopped as non-drinkers...
- Other lifestyle correlates?

Cognitive Rehab: What doesn't work (well)?

- Focus on trivia and declarative memory retrieval
- Example: Crosswords vs. Sudoku
 - Three Memory Processes
 - Encoding
 - Storage
 - Retrieval

Cognitive Rehab: What **doesn't** work (well)?

- Focus on a very limited set of specific tasks that are not functional.
- It could be difficult to empirically demonstrate cognitive improvements, beyond the trained task(s), for younger adults, without cognitive impairment.
 - Ceiling effects
 - Baseline level of cognitive stimulation

Cognitive Rehab: What does work?

- Populations where independence has been lost.
 - Assisted living, long-term rehab, some cancer patients
 - Everything is done for them
 - Cooking
 - Shopping
 - Transportation
 - Social planning
 - Medication management
 - Domestic duties
 - Psychiatric populations

Cognitive Rehab: What does work?

- Focus on executive functioning.
- Executive functioning predicts real-world functional outcomes (e.g., ADLs).
- Why is executive functioning so important?
 - Attention
 - Cognitive inhibition (controlling distractibility)
 - Behavioral (or response) inhibition
 - Problem solving
 - Reasoning
 - Planning
 - Working memory

Cognitive Rehab: Who?

- Individuals with mild cognitive impairment and maybe early stage dementia can benefit a great deal
 - Awareness of deficits
 - Can engage in challenging executive functioning activities
 - Have not experienced significant cortical damage
- Up through mid-stage and later stage dementia
 - We change our approach at mid-stage dementia to focus on quality of life, not improving the ability to make new memories
 - Sequencing
 - Procedural memories
 - Activities that bring enjoyment and reduce unwanted behaviors

Cognitive Rehab: How Often?

- Cognitive rehab is dose-dependent
- Independent living - 1 to 2 times per week, with extra homework. Focus on more purposeful activities and pursuits.
- Assisted living – 3 times per week
- Skilled and rehab settings – nearly every day

Cognitive Rehab: How much?

- Given the dose-dependent nature we should maximize engagement
 - Depends on the environment
 - Can we engage the individual with functional tasks?
 - Can we engage the individual with hobbies and more meaningful pursuits?
 - Depends on level of care
 - In a skilled nursing or rehab setting, we should maximize the level of cognitive stimulation, in order to maximize quality of life
 - Depends on interest
 - Depends on motivation
 - Depends on the help of caregivers

Cognitive Rehab: Who can help?

- Group-based cognitive (and physical) exercise classes have benefits.
 - Less attrition, if they connect socially
 - Homework can maximize dose

Here is access to hundreds of ready-to-print cognitive rehab materials



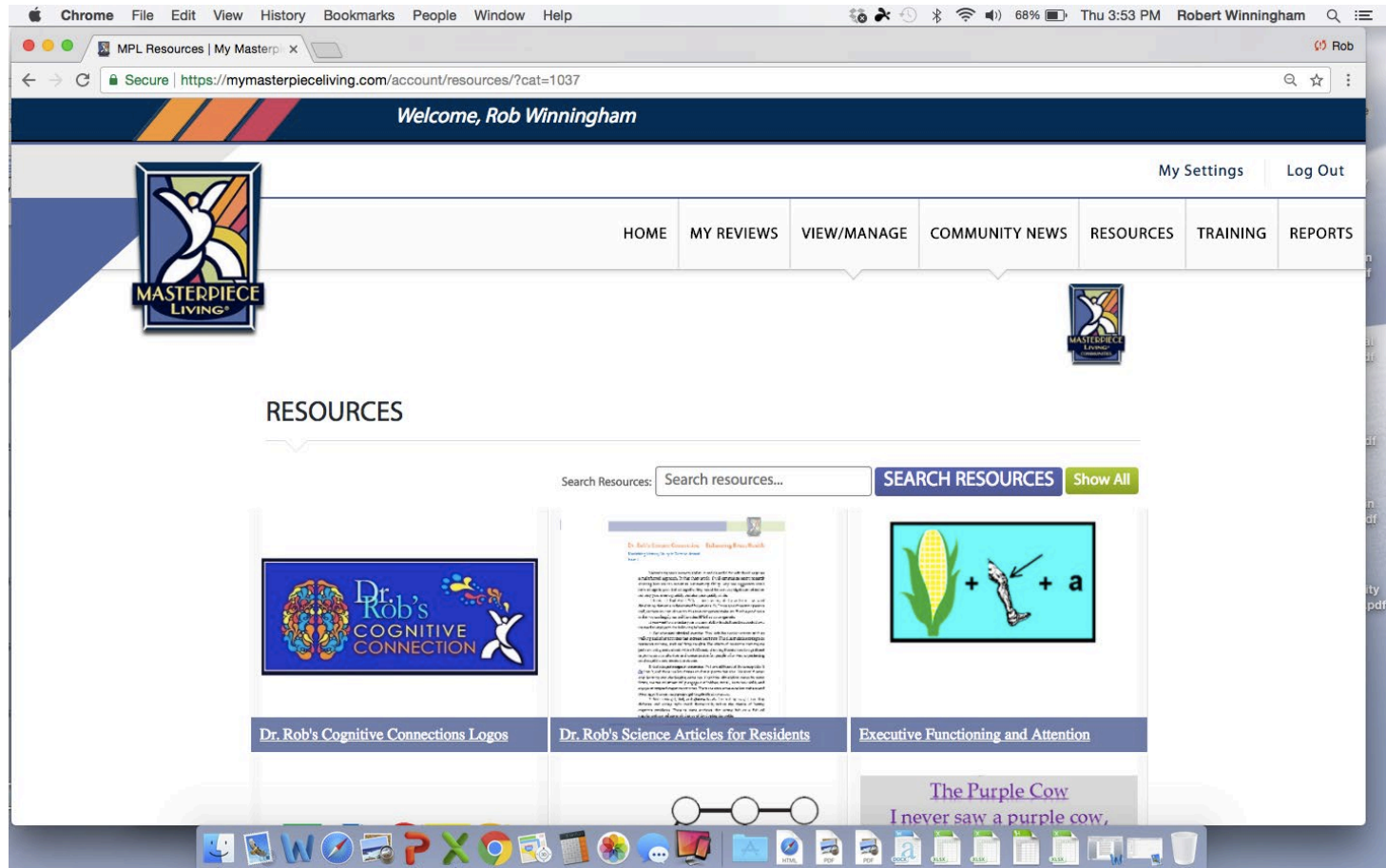
Dr. Rob Winningham's Cognitive Connections

Thank you for your interest in Dr. Rob's Cognitive Connections. Please follow the instructions to access these great resources.

1. Go to mymasterpieceliving.com
2. On the top right corner, click LOGIN to expand the login box
3. Click REGISTER
4. Enter the code: qwerty123
5. Create a username (real email address)
6. Enter your first name and last name, re-enter your email address and create a password
7. You will be prompted to login
8. Scroll down to access resources

Note: We cannot guarantee that these materials will be available indefinitely

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MPL Resources | My Masterpiece Living

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RESOURCES

HOME MY REVIEWS VIEW/MANAGE COMMUNITY NEWS RESOURCES TRAINING REPORTS

Dr. Rob's Cognitive Connections Logos

Dr. Rob's Science Articles for Residents

Executive Functioning and Attention

Issue 1, Maximizing Memory Ability in Older Adulthood

Issue 2, Sleep and Memory

Issue 3, You Can Get an Excellent Brain Workout with an iPad

Issue 4, What is the Difference Between Dementia and Alzheimer's Disease

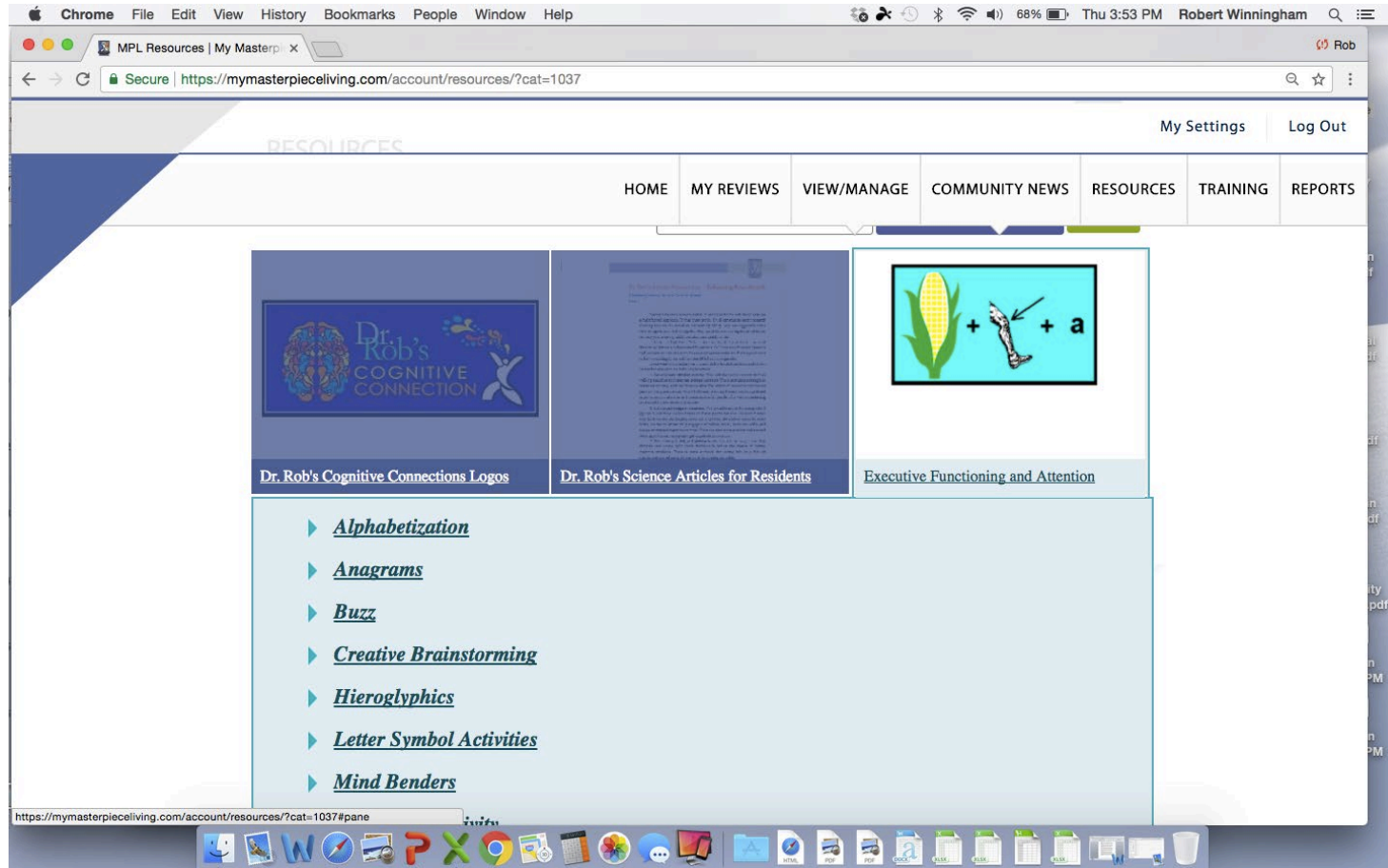
Issue 5, Is Alcohol Good or Bad For Our Brains and Memory

Issue 6, Is Dementia on the Rise?

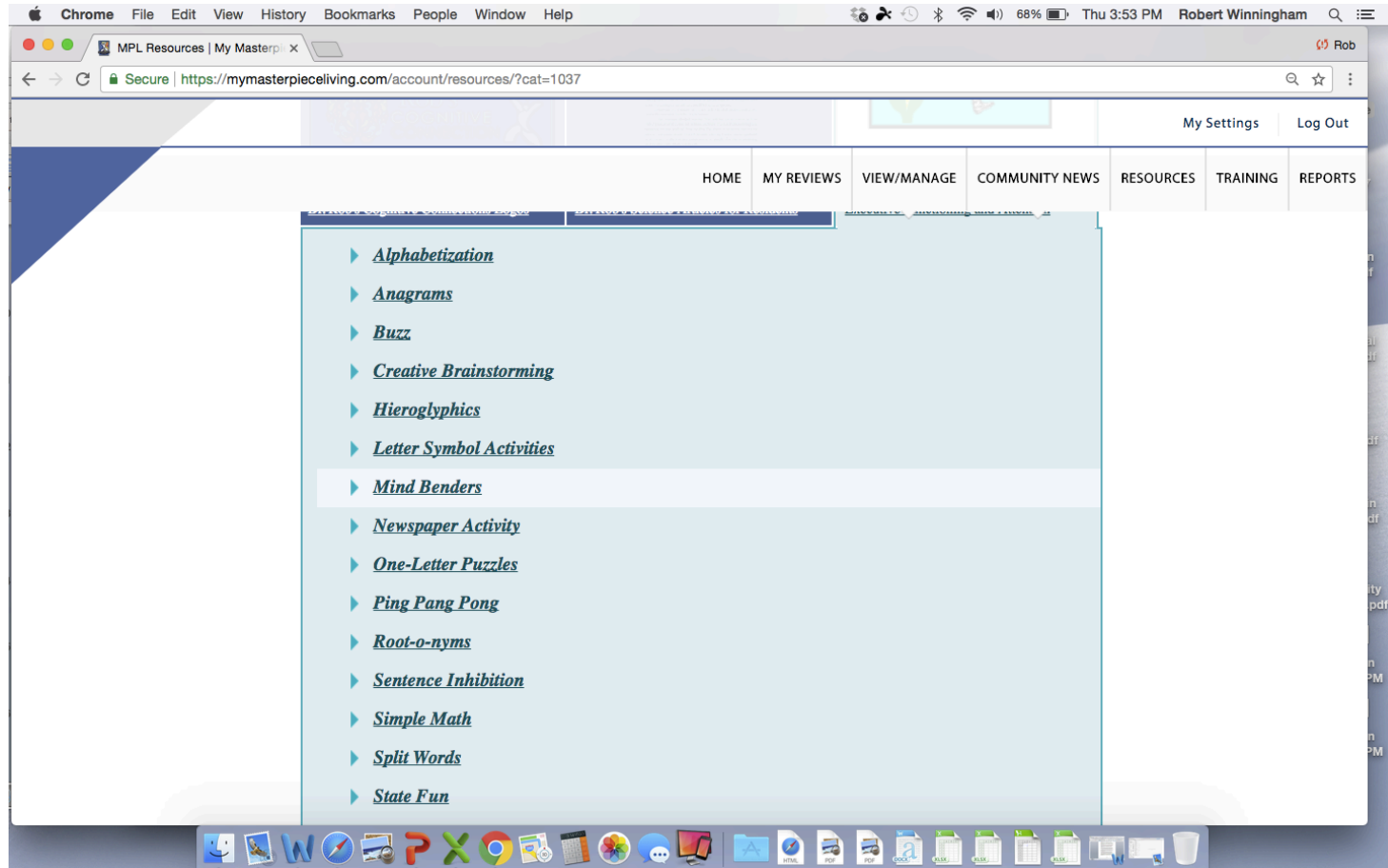
<https://mymasterpieceliving.com/account/resources/?cat=1037#pane>

Linking to a Friend Each Day May Keep the Doctor Away

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Alphabetization Activity – Easy #1

RASPBERRY

NEPOTISM

SCALLOP

BASEMENT

MARSUPIAL

PASSIONATELY

ADJECTIVE

CLEVER

DELIBERATE

SNORKEL

ORDINANCE

LANDSLIDE

TATTOO



Alphabetization Activity – Difficult #1

Nanking Cherry

Oregon Grape

Natal Plum

Orange

Natal Orange

Orangeberry

Nectarine

Oriental Cherry

Nagami Kumquat

Otaheite Orange

Olallie Berry

Ogeechee Lime



Anagrams (Difficult)

An anagram is a word or phrase formed by rearranging the letters of another word or phrase. For example, Elvis to Lives. This is a fun addition to any cognitive enhancement program. We also have a related activity called word mines. If you ever want to find anagrams for a particular word, go to: <http://wordsmith.org/anagram/index.html>.

Inventions Anagrams:

YULPLE	_____
EHOELWBARWR	_____
RELVE	_____
TIRASCEAS	_____
ULRMCFU	_____
TYCECBL	_____
ACN NPEERO	_____
CREVDSWRRIE	_____
PZPRIE	_____
BONK	_____
GHEIN	_____
WEESSA	_____
OLCKC	_____
PRMA	_____
HEWLE DAN EXAL	_____
MHEARM	_____
HNACI	_____



Anagrams (Easy)

An anagram is a word or phrase formed by rearranging the letters of another word or phrase. For example, Elvis to Lives. This is a fun addition to any cognitive enhancement program. We also have a related activity called word mines. If you ever want to find anagrams for a particular word, go to: <http://wordsmith.org/anagram/index.html>.

Inventions Anagrams:

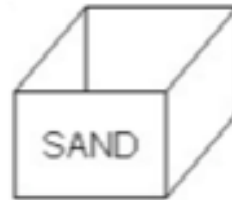
PELULY	_____
WERELBOHARW	_____
LVEER	_____
SSTACIRAE	_____
FLUUCRM	_____
BCCILYE	_____
CNA ONEEPR	_____
SRIRECVWDER	_____
ZPEPIR	_____
KOBN	_____
HGNIE	_____
SSAEFW	_____
CCOLK	_____
RMPA	_____
WEHEL DAN ALXE	_____
HMEAMR	_____
CIHAN	_____

Think of as many possible uses for dime. Be as creative and uninhibited as possible.

Think of as many possible uses for an old rowboat. Be as creative and uninhibited as possible.

Hieroglyphics #3:

Try to determine the phrase associated with arranged letters. For example, if you saw "HE'S/HIMSELF" the correct answer would be "He is beside himself."



MAN
BOARD

STAND
I

R|E|A|D|I|N|G

WEAR
LONG

Letter Symbols Activity #1:

In this activity, participants use the key to decode the famous quote. For example, in one of them a heart is a code for “T”. After, figuring out all of the letters the participant will be able to read the quote.



- - - - -



- - - - -



- - - - -

-Benjamin Franklin

KEY:



Newspaper Activities

1. Take newspapers out of order, but include all sections, except ads. Then, participants work to put the papers back together, in the correct order. Work on this for 4-5 minutes.
 - Make it easier by having them do newspapers with fewer pages
 - Use the Sunday paper for higher functioning participant

Newspaper Activities

2. Have participants circle certain letter(s) on the front page.
 - Make it more difficult by having them count out loud how many they have circled
 - Make it more difficult by having them find two (or even three) letters



Root-o-nyms #1:

This activity involves completing words that are missing certain letters (like Wheel of Fortune). Psychologists call this a word fragment task. Research shows that older adults with memory problems don't have as much difficulty doing these type of tasks as they don't require as much attention and new memory encoding.

Ha__ __ __ __ess is not a d__ __tin__ __
ion; it is a me__ __od of __i__e.

Th__ a__t of __ove is __a__g__ly t__e __rt
of per__ __ __ __ence.

Sentence Inhibition Activity

- *Instructions: Have participants verbally state a word that is different than the typical response, after you verbally state the first part of the sentence.*

Sentence Inhibition Activity

- The captain wanted to stay with the sinking...
- We love to decorate the Christmas...
- The student was late catching the...
- I love my mom and...
- Could you please pass the salt and...
- Three strikes you are...



Today I went to the Red Cross and gave _____.

The school bus stopped to pick up _____.

The sun is out, it sure is a beautiful _____.

He doesn't like to dance; he claims he has two left _____.

Would you mind putting another log on the _____?

I don't have any cash with me. Do you take _____?

Would you like another cup of _____?

The grass often seems greener on the other side of the _____.

Let's get going, time is _____.

Wow, she got there in the nick of _____.

It is hot enough to fry a _____

The judge said it was an open and shut _____.

Everyone was thinking about the 800 pound gorilla in the _____.

Buzz

Have participants count, beginning in a clockwise direction such that the first person says “one”, the second person say “two” and so on. Instruct people to say “buzz” instead of the number if the number is a multiple of seven (e.g., 7, 14, 21, 28, 35, 42, 49, 56, 63 and so on) or if the number has a seven in the number (e.g., 17, 27, 37, etc.). The direction reverses when someone says buzz in place of the number. Even participants with moderate memory problems can learn this activity, if they do it during every session. This activity requires attention and used the frontal lobes and the right parietal lobe. To make the activity more challenging, split a large group into smaller groups; the noise of the adjacent groups require even greater use of attention resources.

Ping, Pang, Pong

Always go clockwise. The first person says Ping, the second person says Pang, and the third person simultaneously says Pong and points to someone. The person who has been pointed to starts over and says Ping...

This game is fun and always challenging. You may want to begin by replacing "ping, pang, and pong" with "one, two, three." After participants are familiar with the game you can encourage them to try to be deceptive. For example, if they are going to say "pong" (that is when they have to point to someone) they should look at one person and point to someone else.

Also try Snap, Crackle, Pop...



Split Words Activity #5:

This activity is designed to exercise the frontal lobes by exercising attention and concentration. This activity also requires use of visual memory (occipital lobes) and word recognition (temporal lobe). Draw a line from the letters on the right to the letters on the left to complete the word.

MIC

BERT

DA

RY

LI

HN

SU

ICIA

DEB

ES

JAM

VID

RO

ORAH

MA

NDA

JO

HAEL

PATR

SAN



Split Words Activity #8:

This activity is designed to exercise the frontal lobes by exercising attention and concentration. This activity also requires use of visual memory (occipital lobes) and word recognition (temporal lobe). Draw a line from the letters on the right to the letters on the left to complete the word.

SMI	IAMS
JOHN	ES
BR	SON
DA	VIS
MIL	TH
WILL	LSON
WI	ORE
TAY	LOR
JON	OWN
MO	LER



Split Words Activity #6:

This activity is designed to exercise the frontal lobes by exercising attention and concentration. This activity also requires use of visual memory (occipital lobes) and word recognition (temporal lobe). Draw a line from the letters on the right to the letters on the left to complete the word.

BEA

ER

BULL

TER

POO

HOUND

MAS

SHUND

GREY

GLE

BOX

ATION

DACH

DOG

POIN

TIFF

DALM

DLE



State Fun Activity #1:

Start the activity by asking participants to generate as many states as they can on the piece of paper with 50 blank spaces. After participants generate as many as they can, then give each the list of 50 states and ask them to complete filling out their list by using the answer sheet. If this is difficult, tell them to cross out each state on the answer sheet that they have on the list they generated.



Think of as many states as you can and write them below.

- | | | |
|-----|-----|-----|
| 1. | 2. | 3. |
| 4. | 5. | 6. |
| 7. | 8. | 9. |
| 10. | 11. | 12. |
| 13. | 14. | 15. |
| 16. | 17. | 18. |
| 19. | 20. | 21. |
| 22. | 23. | 24. |
| 25. | 26. | 27. |

List of 50 States

Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
Florida
Georgia
Hawaii
Idaho
Illinois
Indiana
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Missouri

Montana
Nebraska
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Texas
Utah
Vermont
Virginia
Washington
West Virginia
Wisconsin
Wyoming

State Fun Activity #2:

1. Anagrammatically speaking, there are seven states hidden in these word groups. Rearrange the letters to find them:

Ah! Look ma. _____

I own gym. _____

Men, share whip. _____

Loan torn chair. _____

Horned dials. _____

Coins wins. _____

Show inn tag. _____

2. Name the four U.S. states that start and end with the same letter.

1. _____

2. _____

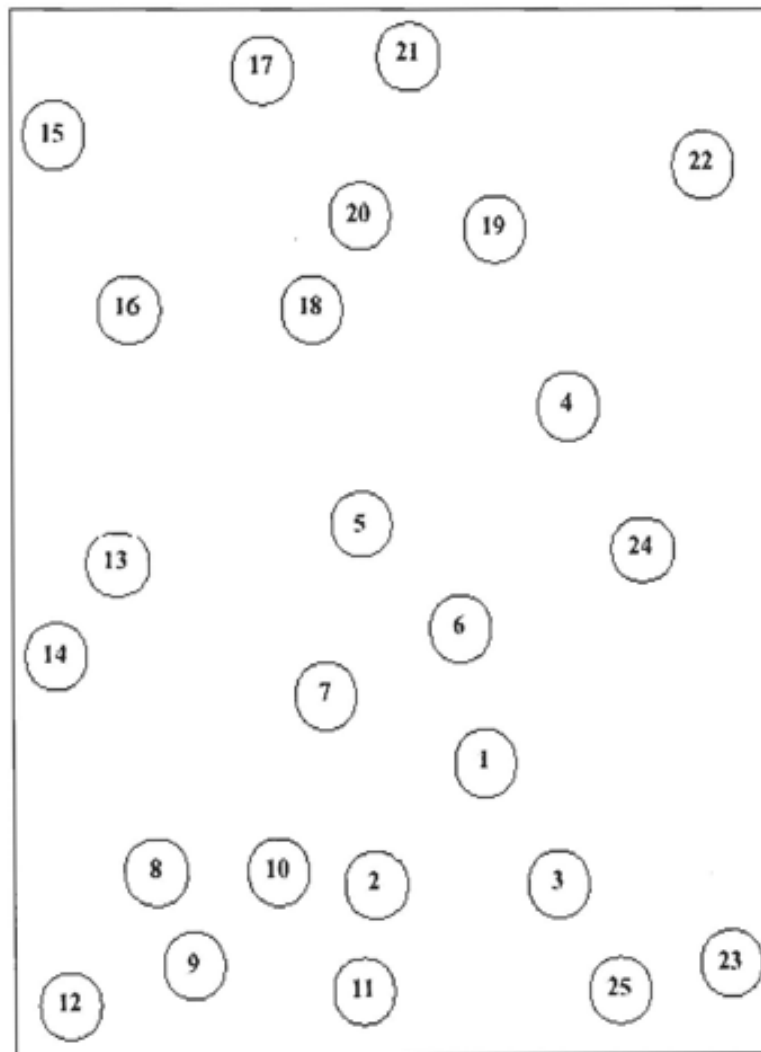
3. _____

4. _____

Trail Making (Part A)

Patient's Name: _____

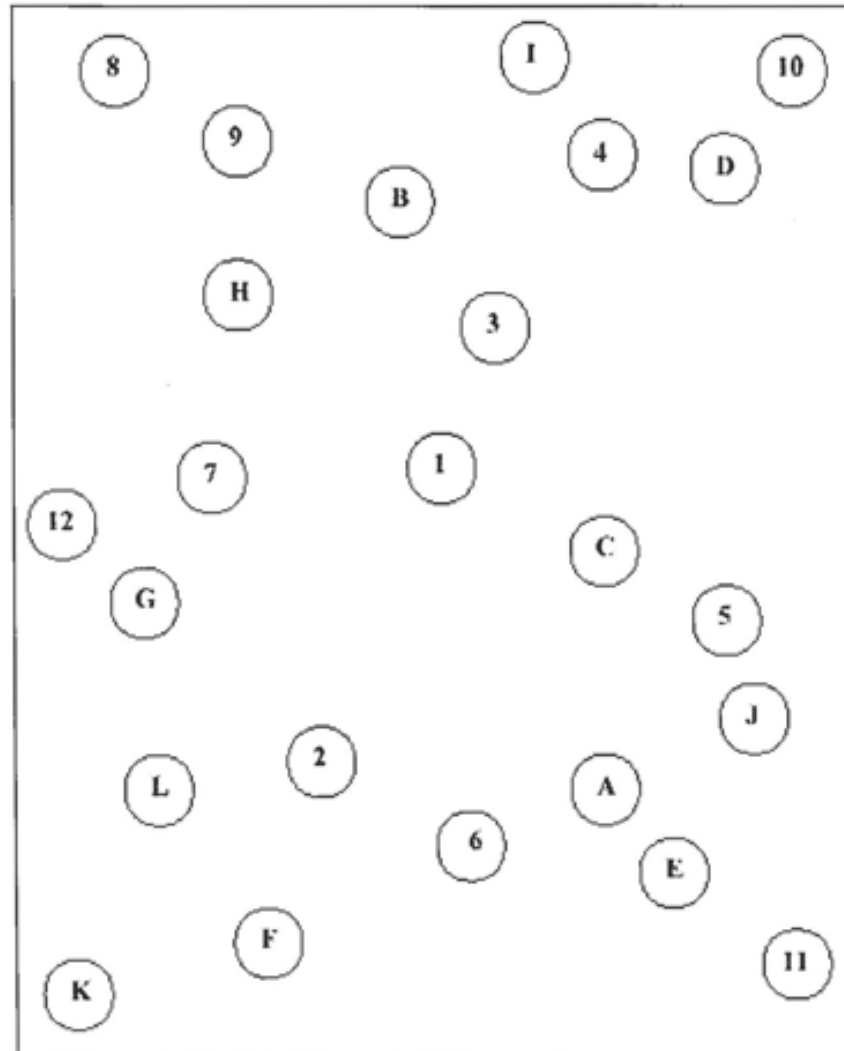
Date: _____



Trail Making (Part B)

Patient's Name: _____

Date: _____

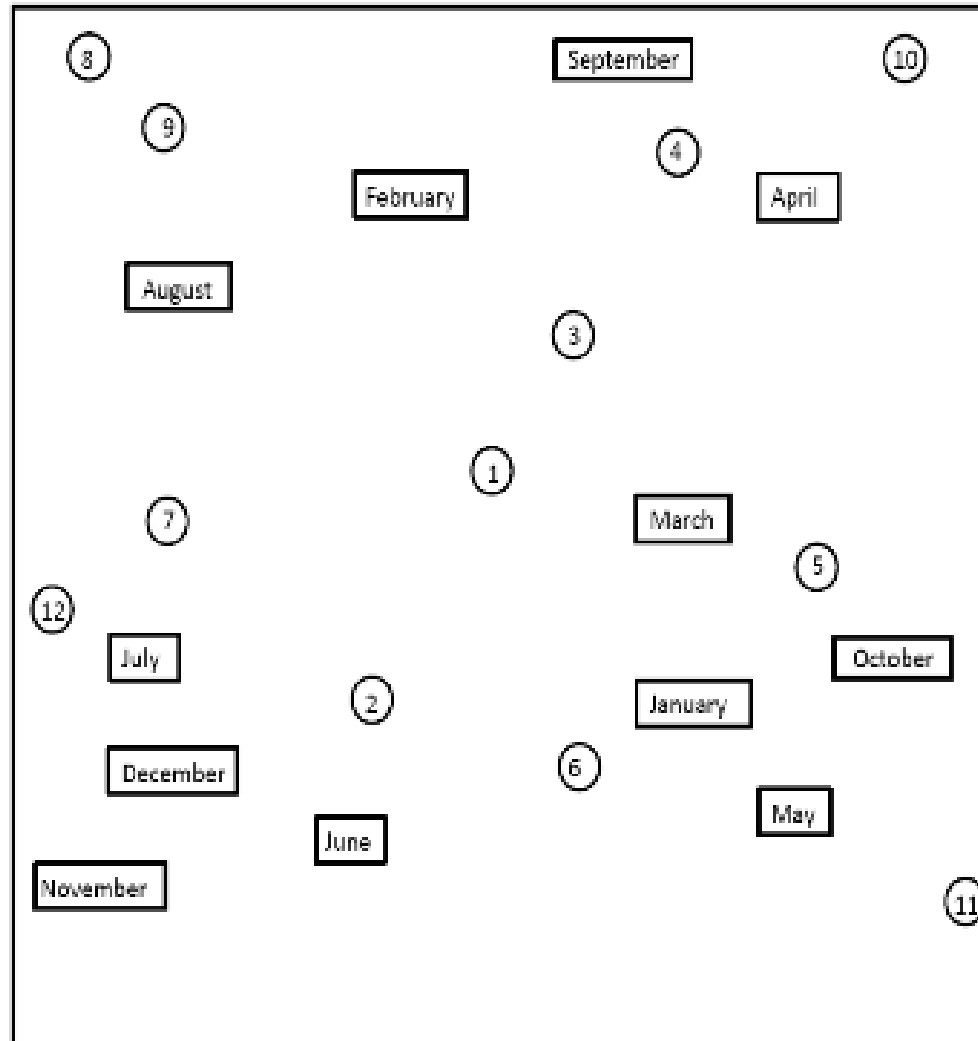


Trail Making – Adaptation 1
(Months)

Name:

Date:

Time to Complete:

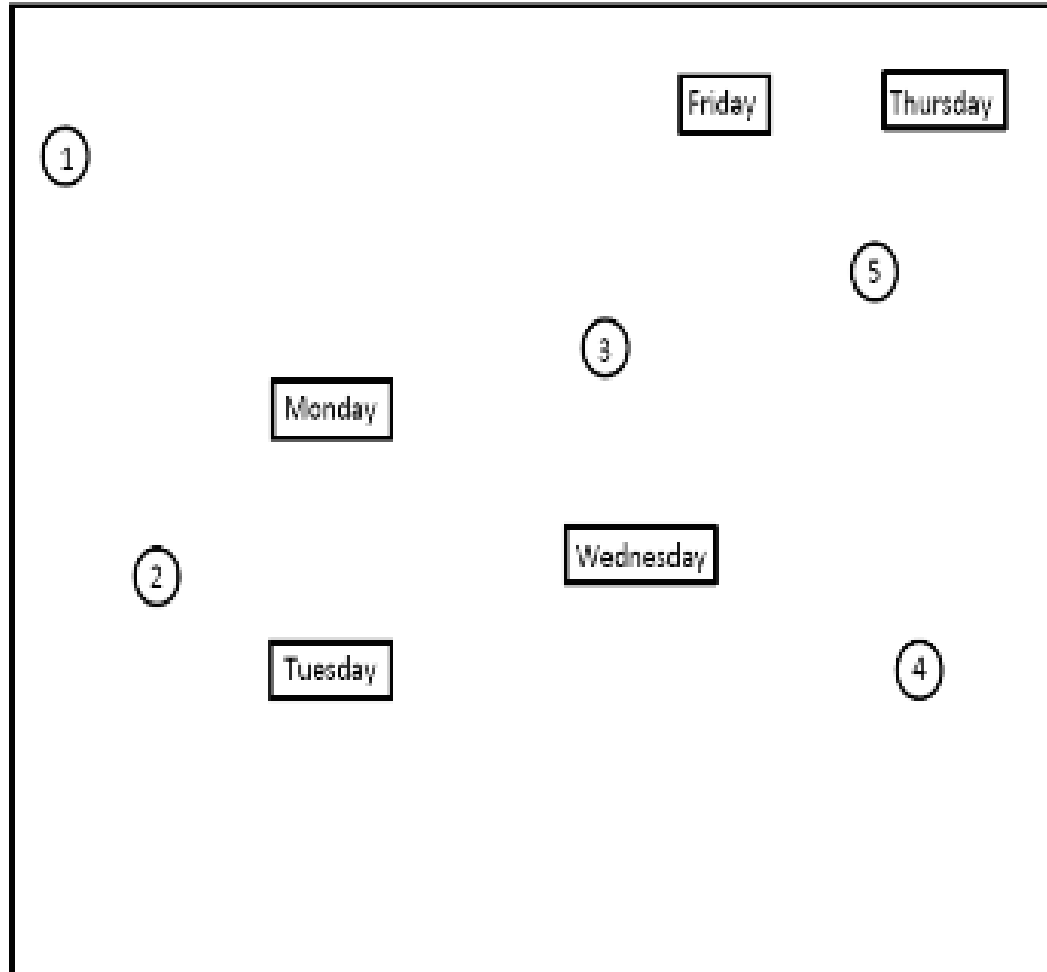


Trail Making – Adaptation 2
(Days of the Week)

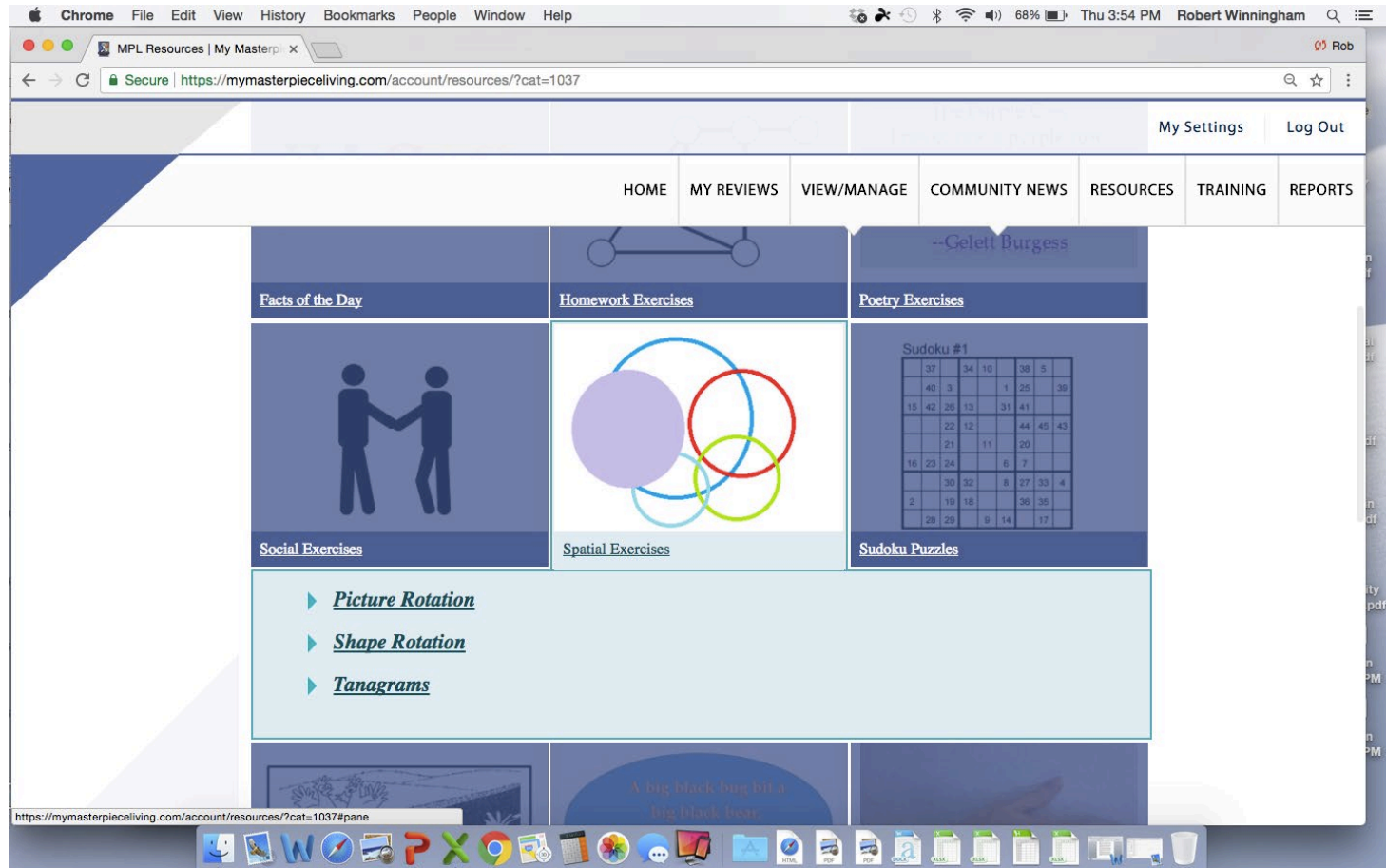
Name:

Date:

Time to Complete:

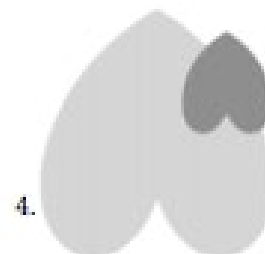
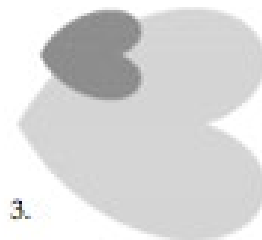
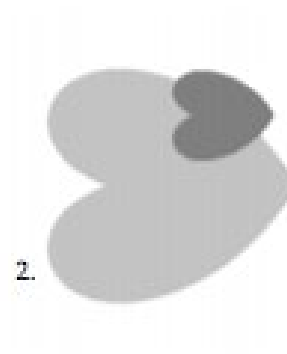


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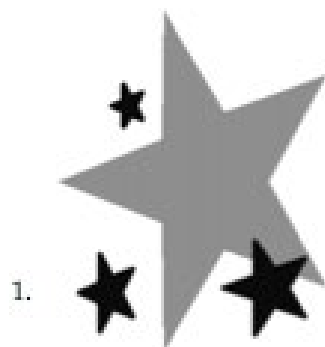
Picture Rotation Activity #1:

Use the image above the line to figure out which image below is a “rotated” copy of the above image.



Picture Rotation Activity #3:

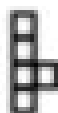
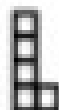
Use the image above the line to figure out which image below is a “rotated” copy of the above image.



Shape Rotation Activity #1:

Which of the shapes below the line is a **rotated** image of the shape above the line? Mirrored or similar images do not count. Tip: Try to use the process of elimination to narrow down your options.

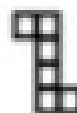
1.



A



B

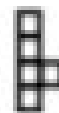


C



D

2.



A



B

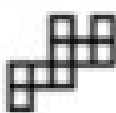
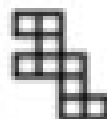


C

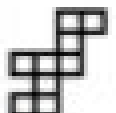


D

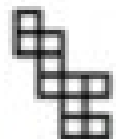
3.



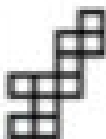
A



B

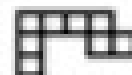


C



D

4.



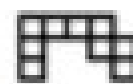
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B



C

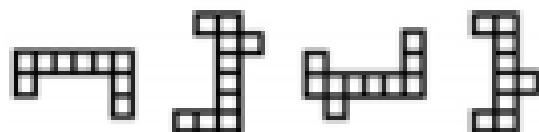
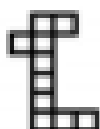


D

Shape Rotation Activity #2:

Which of the shapes below the line is a **rotated** image of the shape above the line? Mirrored or similar images do not count. **Tip:** Try to use the process of elimination to narrow down your options.

1.



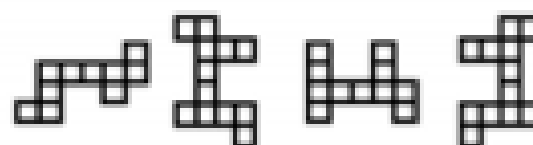
A

B

C

D

2.



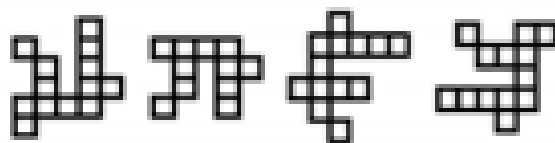
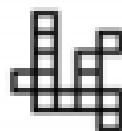
A

B

C

D

3.



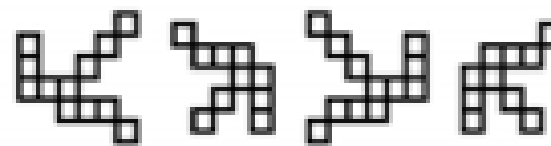
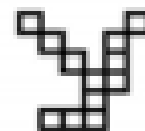
A

B

C

D

4.



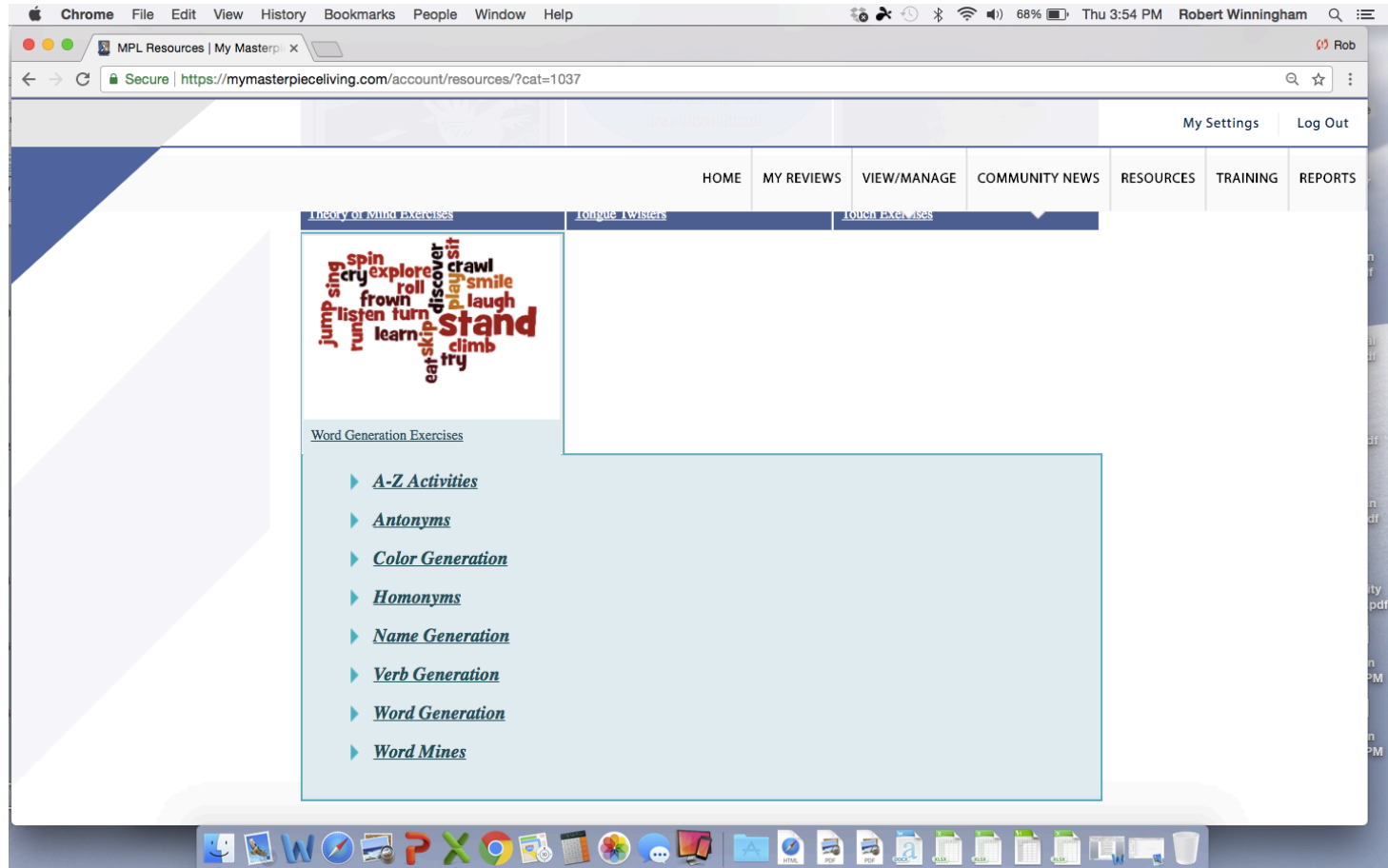
A

B

C

D

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A-Z Activity 1: Animals

Fill in the blank using the letter provided as the first letter. Think of animals for each letter provided.

A _____

N _____

B _____

O _____

C _____

P _____

D _____

Q _____

E _____

R _____

F _____

S _____

G _____

T _____

H _____

U _____

I _____

V _____

J _____

W _____

K _____

X _____

L _____

Y _____

M _____

Z _____

A-Z Activity 3: Female First Names

Fill in the blank using the letter provided as the first letter. Think of female first names for each letter provided.

A_____

N_____

B_____

O_____

C_____

P_____

D_____

Q_____

E_____

R_____

F_____

S_____

G_____

T_____

H_____

U_____

I_____

V_____

J_____

W_____

K_____

X_____

L_____

Y_____

M_____

Z_____

Antonyms Activity #1

Antonyms are words that are opposite. In this activity participants will try to think of a word (or, in some cases words) that have the opposite meaning. The more difficult ones are challenging for most people and may be appropriate to do in a group setting. Many of the given words have multiple antonyms so there may not be "one correct answer."

Write in the word that is the opposite of the word listed:

Example: Big – Small

Up - _____

Hot - _____

Winter - _____

White - _____

On - _____

Over - _____

Loud - _____

Easy - _____

Left - _____

Antonyms Activity #5

Antonyms are words that are opposite. In this activity participants will try to think of a word (or, in some cases words) that have the opposite meaning. The more difficult ones are challenging for most people and may be appropriate to do in a group setting. Many of the given words have multiple antonyms so there may not be "one correct answer."

Write in the word that is the opposite of the word listed:

Example: Big – Small

Escape – _____

Expert – _____

Humble – _____

Random – _____

Sudden – _____

Invest – _____

Rare – _____

Invite – _____

Rebuke – _____

Color Generation Activity: Red

In this activity participants try to think of as many items as they can of a certain color. Encourage them to use a strategy, which will exercise their executive functioning. You may set a time limit of 60 seconds, 90 seconds, or 2 minutes.

Think of as many things that are red as you can:

1. 10.

2. 11.

3. 12.

4. 13.

5. 14.

6. 15.

Name Generation Activity #6: Presidents

In this activity participants try to think of as many names as they can of a certain class. Encourage them to use a strategy, which will exercise their executive functioning. You may set a time limit of 60 seconds, 90 seconds, or 2 minutes.

Think of as many Presidents as you can:

- | | |
|----|-----|
| 1. | 10. |
| 2. | 11. |
| 3. | 12. |
| 4. | 13. |
| 5. | 14. |
| 6. | 15. |
| 7. | 16. |

Verb Generation Activity: Athletes

Generating verbs is a challenging linguistic activity that exercises attention, executive functioning, and word fluency. You may set a time limit of 60 seconds, 90 seconds, or 2 minutes.

Think of as many things that athletes do:

1. 10.

2. 11.

3. 12.

4. 13.

5. 14.

6. 15.

Verb Generation Activity: Newborns

Generating verbs is a challenging linguistic activity that exercises attention, executive functioning, and word fluency. You may set a time limit of 60 seconds, 90 seconds, or 2 minutes.

Think of as many things that newborns do:

- | | |
|----|-----|
| 1. | 10. |
| 2. | 11. |
| 3. | 12. |
| 4. | 13. |
| 5. | 14. |
| 6. | 15. |

Word Generation Activity #2: Car Types

In this activity participants try to think of as many names as they can of a certain class. Encourage them to use a strategy, which will exercise their executive functioning. You may set a time limit of 60 seconds, 90 seconds, or 2 minutes.

Think of as many car types as you can:

- | | |
|----|-----|
| 1. | 10. |
| 2. | 11. |
| 3. | 12. |
| 4. | 13. |
| 5. | 14. |
| 6. | 15. |

Word Generation Activity #6: Flowers

In this activity participants try to think of as many names as they can of a certain class. Encourage them to use a strategy, which will exercise their executive functioning. You may set a time limit of 60 seconds, 90 seconds, or 2 minutes.

Think of as many flowers as you can:

1. 10.

2. 11.

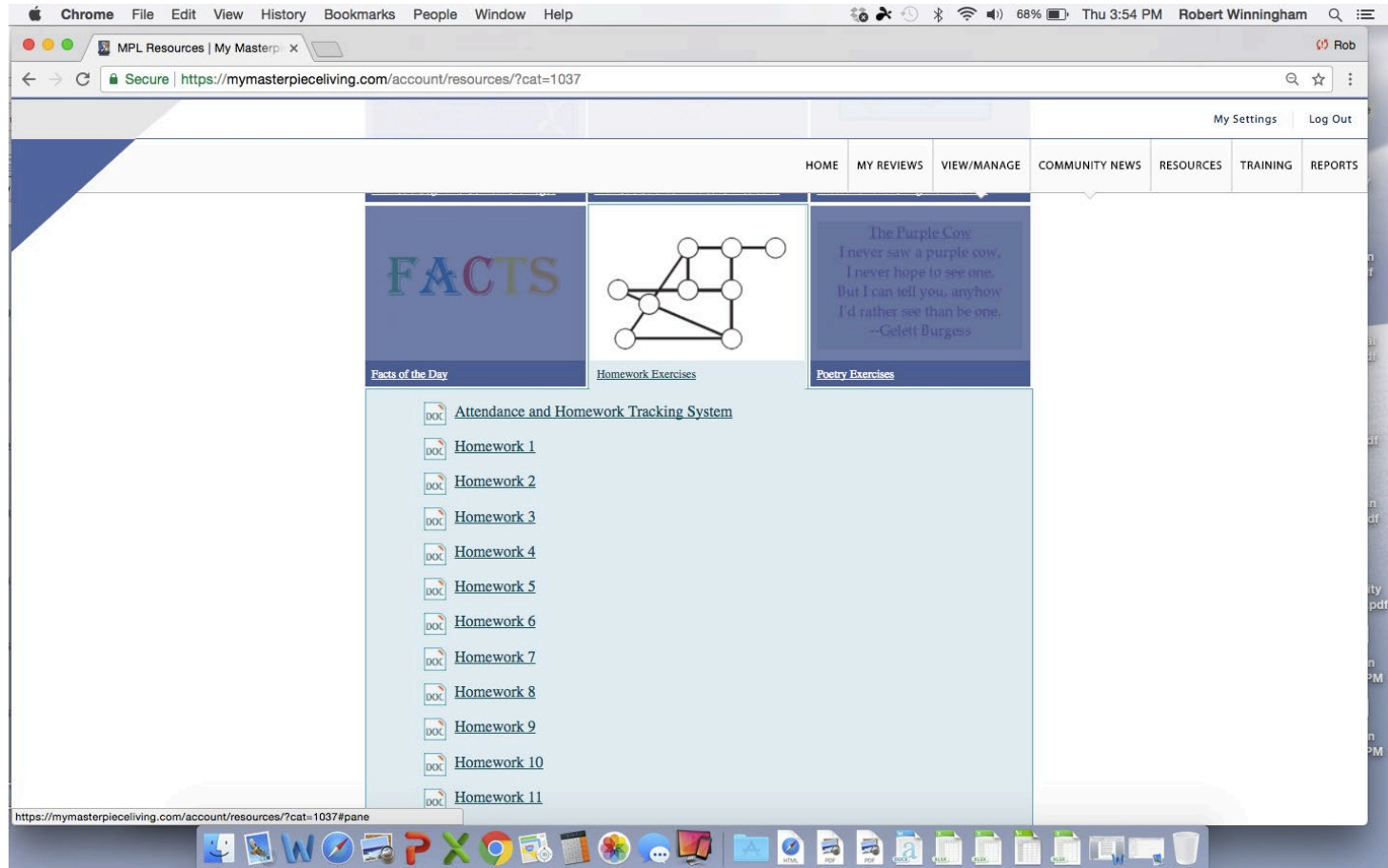
3. 12.

4. 13.

5. 14.

6. 15.

Dr. Rob's Cognitive Connections



Brain Training Apps

- Dynamic apps can adjust difficulty level based on performance.
- Do they have multiple user options and site licenses?
- Family members and caregivers can facilitate home exercises with tablets and apps.

Up Next

Next, Dr. Studer will discuss *Brain Fitness and Motor Learning*