


A Functional Approach to Assessment in Dementia
****Some New Ideas****



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Disclosures

- Michelle Bourgeois' Financial Disclosures:
 - Author for Health Professions Press, *Memory and Communication Aids for People who have Dementia*, for which she receives royalty payments.
 - Employed by the University of South Florida.
 - Serves as a paid consultant for federally funded research grants obtained by Cameron Camp (Center for Applied Research in Dementia, Solon, OH) and Michael Skrajner (Hearthstone Alzheimer Care, Woburn, MA).
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State of the Art in Dementia

- 1980's Bayles and Tomoeda developed first assessment tools
- 1990's Interventions appear:
 - » Memory books, Validation therapy, Reminiscence therapy, Caregiver-focused approaches
 - » Spaced Retrieval
- 2000's More approaches:
 - » Montessori, Environmental Interventions
- 2014 Are we satisfied? Are our clients experiencing a quality life?

Which NH will YOU choose for your Mother or Father?



For YOU???

What's possible:
A Meaningful, quality of life in a
Nursing Home

<https://www.youtube.com/watch?v=1LCRrcxrXE>



ASHA Changing Health Care Landscape Summit (2012)

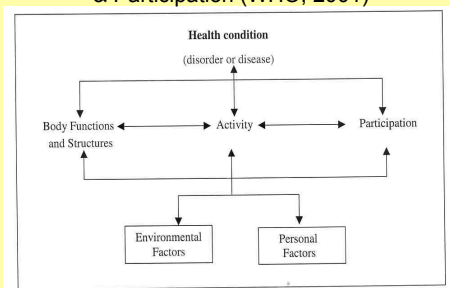
- **The Affordable Health Care Act of 2012**
- Critical need for **patient-centered care** that includes
 - measuring things that patients care about and notice, and
 - considering the patient's perspective in determining the value of services.
- **Patient-reported outcomes** will be used
 - to measure functional improvement (or decline),
 - assess treatment effectiveness, and
 - investigate patients' experiences of such phenomena as the burden of disability and quality of life.

How will we do this?

- Reconsider our usual approach to Rehab
 - Referral – Assess – Treat – Evaluate – Discharge
 - Clinician-focused approach
- Start at the End
 - Patient desires/discharge objectives – Treatments – Assess
 - Patient-centered approach
- Flip the rehab model

- FIRST,
 - Determine Patient opinions, desires, values
 - What do they want to be able to do?
 - What is meaningful to them?
- THEN,
 - Figure out what Assessments to use
 - to discover barriers to doing these desired things
 - to document baseline functioning
 - to measure progress or satisfaction

The WHO Model of Impairment, Activities, & Participation (WHO, 2001)



Living with Aphasia: Framework for Outcome Measurement (A-FROM)
 (Kagan et al., 2008, Counting what counts: A framework for capturing real-life outcomes of aphasia intervention. *Aphasiology*, 22 (3), 258–280.)

Leisure and Recreation

Talking Mats
 Murphy, J., & Boa, S. (2012). Using the WHO-ICF with Talking Mats to Enable Adults with Long-term Communication Difficulties to Participate in Goal Setting. *Augmentative and Alternative Communication*, 28, 52-60.

What is Meaningful; what is a Quality Life?

- Food and Shelter
- Someone to love, to talk to
 - Someone who loves you
- Something meaningful to do
 - A reason to get up in the morning
 - Enjoyable activities, interests
- Feeling useful and part of a community
 - Feeling appreciated for your contributions



How to determine goals?

- Interview the client
 - What will make your life here meaningful/pleasant?
 - What do you want to be able to do? What do you like to do?
- Interview the family
 - What was his/her usual routine and activities?
 - What would s/he want to be doing?
 - What would you like him/her to be doing?
- Interview the staff
 - What should s/he be able to do to function well here?
 - What is difficult for him/her to do independently?
- Evaluate the environment

Role of SLPs

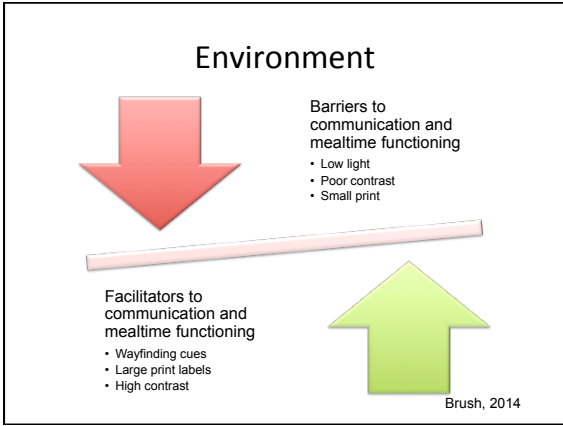
- **Work in collaboration** with older adults to fill in the gaps of their abilities to allow them to spend their time doing what **THEY** choose to do (Brush, 2014)



Participation Assessment Form	
Name:	Date:
• What are your interests?	
• What did you do before? • What would you like to do now?	
• Who do you want to talk/interact with?	
• What would make you feel useful?	
• What could you contribute to this place?	
• What is most meaningful to you?	
• What would you like to do before it's too late?	

Evaluate the Environment

- **What's available?**
 - Someone to talk to (peers, staff, family, friends, pets)
 - Meaningful activities to do (book club, exercise group, walking the dog, setting the table, etc.)
 - Places to visit (chapel, beauty parlor, outside area, dining room, field trips, etc.)
- **What are the barriers?**
 - Facility-based: Auditory/visual barriers, lack of personnel, schedule
 - Person-based: Cognitive and physical limitations, familiarity, interests (likes/dislikes)



Identify Environmental Barriers

Environment & Communication Assessment Toolkit for Dementia Care

By Jennifer Brush, M.A., CCC/SLP; Margaret Calkins, Ph.D., CAPS, EDAC; Carrie Bruce, M.A., CCC/SLP, ATP; and Jon Sanford, M.Arch.

Includes:
 Sound level meter
 Light meter
 Personal Spaces Assessment Forms
 Public Spaces Assessment Forms

2011, Health Professions Press

Montessori Methods for Dementia™
 Focusing on the Person & the Prepared Environment

Gail Elliot, BASC, MA
 Assistant Director | Clinical Center for Studies in Aging
 Alzheimer's Institute | Pennsylvania State University
 Foreword by: Dr. Constance Cummings

www.dementiability.com

Client Name: _____ Form Completed by: _____
 Date: _____

A. Identify skills, abilities and interest by ranking or checking the appropriate boxes.
B. Decide what areas you want to focus on. Either check the boxes or number according to priority (e.g. 1 would be most important, 2 next important, etc.).

Activities of Daily Living		Sensorial		Cognitive		Culture & Social Connections	
A	B	A	B	A	B	A	B
<input type="checkbox"/>	Walking	<input type="checkbox"/>	Coloring	<input type="checkbox"/>	Exploration of the world, including	<input type="checkbox"/>	Grace & courtesy
<input type="checkbox"/>	Carrying objects	<input type="checkbox"/>	Shape	<input type="checkbox"/>	History	<input type="checkbox"/>	Grace activity
<input type="checkbox"/>	Folding clothes	<input type="checkbox"/>	Sounds	<input type="checkbox"/>	Music	<input type="checkbox"/>	Roles
<input type="checkbox"/>	Buttoning	<input type="checkbox"/>	Touch	<input type="checkbox"/>	Art	<input type="checkbox"/>	Values
<input type="checkbox"/>	Using zipper	<input type="checkbox"/>	(e.g. – soft/hard or rough/smooth)	<input type="checkbox"/>	Geography	<input type="checkbox"/>	Making connections to the world around learner
<input type="checkbox"/>	Clothing	<input type="checkbox"/>	Size & shape	<input type="checkbox"/>	Science	<input type="checkbox"/>	Activities that bring joy
<input type="checkbox"/>	Opening & closing (drawers, bottles or screwing nuts & bolts)	<input type="checkbox"/>	Taste	<input type="checkbox"/>	Biology	<input type="checkbox"/>	Activities are connected to personal interests
<input type="checkbox"/>	Using tools (including cutlery)	<input type="checkbox"/>	Smells	<input type="checkbox"/>	Exploration can be accomplished through	<input type="checkbox"/>	Environment offers
<input type="checkbox"/>	Flouring	<input type="checkbox"/>		<input type="checkbox"/>	Singing	<input type="checkbox"/>	Social roles
<input type="checkbox"/>	Spooning	<input type="checkbox"/>		<input type="checkbox"/>	Reading	<input type="checkbox"/>	Opportunities for personal expression
<input type="checkbox"/>	Tidying	<input type="checkbox"/>		<input type="checkbox"/>	Games	<input type="checkbox"/>	Support (physical, social & emotional)
<input type="checkbox"/>	Personal care	<input type="checkbox"/>		<input type="checkbox"/>	Puzzles	<input type="checkbox"/>	Interpersonal connections
<input type="checkbox"/>	Hygiene	<input type="checkbox"/>		<input type="checkbox"/>	Includes accessing important information & decision-making	<input type="checkbox"/>	Atmosphere of both caring & being cared about
<input type="checkbox"/>	Attending to personal finances (such as writing a cheque)	<input type="checkbox"/>		<input type="checkbox"/>	May need external cues to support decline in declarative memory	<input type="checkbox"/>	
<input type="checkbox"/>	Eating	<input type="checkbox"/>		<input type="checkbox"/>	Memory book	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	Cue cards	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	Daily schedule	<input type="checkbox"/>	

Use the information from this chart to help you establish goals on the Montessori Assessment Form.

Personal Wants, Needs, & Safety Assessment Form
 © Michelle S. Bourgeois, Ph.D.

Assessing the Wants, Needs, Safety of: _____ (name)

Environment: Home Hospital Assisted Living Nursing Home (circle one)

Wants: The expression of personal preferences, likes and dislikes

Likes:	Dislikes:
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Needs: The satisfaction of physical comforts and emotional needs

Physical:	Emotional:
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Safety: The prevention of harm to one's self or others

Medication:

Falls prevention:

Eating:

Personal hygiene:

Environmental constraints:

Emergency Contacts:

Functional Goals Screening Protocol: Community Clients with Dementia
 © Michelle Bourgeois, Ph.D. CCC-SLP & Angela Halter Rozsa, M.S. CCC-SLP

Name: _____ Date of Screening: _____
 Medical Diagnosis: _____
 Date of Birth: _____ Age: _____ Gender: _____

PART 1: CLIENT INTERVIEW

A. Personal Information

Family	Occupation
Lives with:	Hobbies
Friends	Activities
Preferences	Dislikes

Premorbid Basic Reading Ability Yes No Unable to answer
 Premorbid Basic Writing Ability Yes No Unable to answer
 Wears Hearing Aid Yes No
 Wears glasses Yes No For some activities
 Other languages spoken Yes No Other: _____

B. MMSE Score: _____ Mild=20-23; Moderate=17-19; Severe<17
 Strengths: _____ Weaknesses: _____

C. Conversational Sample:
Tell me about your family (or what you did for a living):

Discourse features	Present	Absent	No opportunity
Takes turns	_____	_____	_____
Relinquishes turn	_____	_____	_____
Maintains topic	_____	_____	_____
Initiates new topic	_____	_____	_____
Transitions from topic	_____	_____	_____
Requests clarification	_____	_____	_____
Clarifies	_____	_____	_____
D. Orientation to Environment:			
Show me where the bathroom is?	Able	Requires assistance (Mid Mod Max)	Not able
Show me where your telephone is?	Able	Requires assistance (Mid Mod Max)	Not able
Show me where I can get a glass of water?	Able	Requires assistance (Mid Mod Max)	Not able
E. Auditory and Tactile Behaviors:			
Is attentive when others are talking?	Yes No	Holds, squeezes, manipulates objects?	Yes No
Is bothered by noises (radio, tv)?	Yes No	Rubs, smooths, explores surface with hands?	Yes No
Is attentive to or participates in music singing?	Yes No	Hits, bangs, slaps objects or surfaces?	Yes No
F. Visual and Functional Reading Behaviors: (Use newspaper, magazine, other written materials in the home)			
Prompt client to "Tell me something interesting from this paper (magazine, mail, etc.)"	Yes No		
Does client read aloud from the materials?	Yes No		
Does client make comments about the topic?	Yes No		

Complete form in Handout

Personally relevant End Goals (Kagan & Simmons-Mackie, 2007)
What the client **hopes to accomplish** at the end of treatment

- **Food and Shelter**
 - Client will eat without choking using a safe swallowing steps visual cue card
 - Client will find room using a visual cue (room number on wristband)
- **Communication partners**
 - Client will participate in mealtime conversation using visual cue cards
 - Client will talk on the phone with family members at scheduled times using a memo board calendar
- **Meaningful activities**
 - Client will participate in Book Club and Art Discussion groups
 - Client will set the table for meals using visual template
- **Role in the community**
 - Client will change the day/date on the community calendar
 - Client will offer and pour beverages for peers from rolling beverage cart.

Example: Woman with PPA, living at home
(Thanks to Jennifer Brush, CCC-SLP)

- **Client & Family identified desired activities:**
 - Say blessing before meals (can't remember blessing)
 - Empty dishwasher & put away dishes (can't unload dishwasher in organized, sequenced fashion; takes excessive time)
 - Do laundry (difficulty sorting, organizing & folding clothing from dryer)
- **Goals:**
 - Client will read Blessing card before meals
 - Client will empty dishwasher, using labeled shelves/drawers and sequencing card
 - Client will follow visual checklist to wash laundry & templates for sorting/folding






What do we need to assess?

- To read Blessing
 - Oral reading ability; determine optimal size of font and complexity of text
- To empty dishwasher
 - Reading ability for checklist
 - Visual matching skills (labels – objects)
- To fold laundry
 - Reading ability for template
 - Visual matching skills (labels – objects)

So how do we assess and document...

- Pre-treatment
 - Oral reading ability?
 - Visual matching skills: words to objects?
 - Frequency of successful tasks (reading, unloading dishwasher, laundry)
- Post-treatment
 - Oral reading ability?
 - Visual matching skills?
 - Frequency of successful tasks
 - Client and Family satisfaction

Bourgeois Oral Reading Measure (1992) (assessment of 2 font sizes)

I enjoy baseball games.	The dog's name is Rover.	I live in Swissvale.	His wife's name is Mary.	My sister is 75 years old.
				

I am fine.

How are you?






What a nice day.

Tried and true.

Live, laugh and learn.

Smile and the world smiles with you.

www.dementiability.com

Plate	Fork	Cup	Spoon	Knife
				

Create your own Match to Sample personalized assessments

Family-collected pre-treatment data:
Frequency of Desired Tasks

Day	Says Blessing	% Success Unloading Dishwasher	% Success Sorting Laundry
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Blessing before meals
 Thank you, Lord, for this food – may it nourish us.
 Thank you, Lord, for the people around this table – may they love and comfort each other.

Empty Dishwasher	Put away	✓	Mine	Frank's
Top Shelf	knives forks spoons		Socks	Socks
Middle Shelf	Glasses Cups		Underwear	Underwear
Bottom Shelf	Plates Bowls		Shirt	Shirt
Towels				

But what about....??

- Expressive Language
- Receptive Language
- Memory
- Executive Functions
- Attention
- Visual-spatial/visual-perceptual skills
- Orientation
- Staging of Dementia
- ????????

And what about



Documentation!

- It drives the system
- Constrains us to specific coding categories and impairment-based measurement tools

FM - Functional Measure: (NOMS as of First Day of therapy)

FM	Start Date	Start Score	End Date	End Score	% Tx Time
Attention					
Augmentative-Alternative Comm					
Memory					
Motor Speech					
Pragmatics					
Problem Solving					
Reading					
Spoken Language Comprehension					
Spoken Language Expression					
Swallowing					
Voice					
Voice Following					
Tracheostomy					
Writing					

Translating baseline data into NOMS scores

- Saying the Blessing
 - Memory: Level 2; requires maximal cues to recall blessing
 - Reading: Level 5; reads sentence-level material
- Unloading Dishwasher
 - Memory: Level 2; requires maximal cues for routine task
 - Attention: Level 2; unable to complete with maximal cueing
 - Problem Solving: Level 2; unable to complete with maximal cueing
- Sorting/folding laundry: Same as above

Standardized Measures Required?

- Comprehensive test batteries: too long
- Screening tests: denials from payers?
- Select subtests
 - Memory
 - Reading
 - Attention
 - Problem Solving

Commonly Used Comprehensive Assessment Tools

- **The Repeatable Battery for the Assessment of Neuropsychological Status** (RBANS; Randolph, 1998)
 - includes 12 subtests yielding six indices, such as visuospatial, memory, attention, and language abilities
- **Ross Information Processing Assessment – Geriatric** (RIPA-G; Ross-Swain & Fogle, 1996).
 - assesses attention, orientation, working/recent/remote memory, verbal organization and reasoning, auditory and reading comprehension.
- **Communication Activities of Daily Living (CADL-2,** Holland, Frattali, & Fromm, 1999)
- **Cognitive Linguistic Quick Test** (CLQT; Helm-Estabrooks, 2001)
 - assesses orientation, attention, verbal and visual memory, confrontation naming, auditory comprehension, and executive functions

Brief Cognitive Assessment Tool (BCAT) (Mansbach, MacDougall, & Rosenzweig, 2012)

Category	Description
Orientation	awareness of self, time, place, and situation
Immediate Verbal Recall	the ability to immediately recall a word list
Visual Recognition/Naming	the ability to accurately put names to objects
Attention	the ability to concentrate and focus
Abstraction	the ability to determine how objects are similar to one another
Language	the ability to understand and express speech
Executive	the "command and control" cognitive abilities
Visuo-spatial	the ability to understand visual processes and relationships
Delayed Verbal Recall	the ability to recall previously presented words after a time delay
Immediate Story Recall	the ability to immediately recall elements of a story
Delayed Visual Memory	the ability to recall previously presented pictures
Delayed Story Recall	the ability to recall elements of a previously presented story after a time delay
Story Recognition	the ability to recall previously presented story elements after cueing



Functional Assessment of Verbal Reasoning and Executive Strategies (MacDonald, 2005).

FAVRES
Functional Assessment of Verbal Reasoning and Executive Strategies by Swika, MacDonell, M.G.S., & RAVO

• Tools require the examinee to:
 - Plan an Event
 - Schedule Work Day
 - Decide on a Gift
 - Build a Case to Solve a Common Problem

Yield Clinically Relevant Information about Verbal Reasoning Performance
 FAVRES results form the basis for treatment planning by answering the following questions.
 1. **Getting the Facts** - Can the person identify the most important facts?
 2. **Discarding Irrelevant Information** - Can the person identify and ignore less relevant information in order to focus on more important information?
 3. **Weighing the Facts** - Can the person compare or weigh competing options or criteria?
 4. **Flexibility** - Can the person revise a decision or plan of action when presented with new information?
 5. **Generating Alternatives** - Can the person efficiently generate a variety of solutions, options or alternatives?
 6. **Predicting Consequences** - Can the person predict potential outcomes, pros and cons, or consequences of a choice?
 7. **Providing a Rationale** - Can the person provide a rationale or a set of reasons for making a choice?

Assessment of Language-Related Functional Activities (ALFA) (Baines, Martin & Heeringa, 1999)



Consists of ten subtests, each of which assesses a different functional activity:

1. telling time,
2. counting money,
3. addressing an envelope,
4. solving daily math problems,
5. writing a check/balancing a checkbook,
6. understanding medicine labels,
7. using a calendar,
8. reading instructions,
9. using the telephone, and
10. writing a phone message.

NINDS and NIH

- PROMIS: Patient reported outcomes measurement information system

- www.nihpromis.org

Arntmann, D., Cook, K., Johnson, K., & Cella, D. (2011). The PROMIS Initiative: Involvement of Rehabilitation Stakeholders in Development and Examples of Application in Rehabilitation Research. *Arch Phys Med Rehabil*, Vol 92, Suppl 1, S12-S19.

- www.nihtoolbox.org

NIH Toolbox Cognition Battery: This battery, recommended for ages 7+, consists of tests to assess Executive Function, Attention, Episodic Memory, Language, Processing Speed and Working Memory.

- www.neuroqol.org

– Quality of Life-Cognition Battery: Applied Cognition-General Concerns, Applied Cognition- Executive Function, Communication

Neuro-QOL Item Bank v1.0 – Applied Cognition - General Concerns

Applied Cognition- General Concerns

Please respond to each question or statement by marking one box per row.

In the past 7 days...		Never	Rarely (once)	Sometimes (2-3 times)	Often (once a day)	Very often (several times a day)
NQ02006	I had to read something several times to understand it.....	5	4	3	2	1
NQ02008	I had trouble keeping track of what I was doing if I was interrupted.....	5	4	3	2	1
NQ02006	I had difficulty doing more than one thing at a time.....	5	4	3	2	1
NQ02008	I had trouble remembering new information, like phone numbers or simple instructions.....	5	4	3	2	1
NQ02007	I had trouble thinking clearly.....	5	4	3	2	1
NQ02007	My thinking was slow.....	5	4	3	2	1
NQ02007	I had to work really hard to pay attention or I would make a mistake.....	5	4	3	2	1

Applied Cognition - Executive Function

Please respond to each question or statement by marking one box per row.

How much DIFFICULTY do you currently have...		None	A little	Somewhat	A lot	Cannot do
NQ02004	checking the accuracy of financial documents, (e.g., bills, checkbook, or bank statements)?.....	5	4	3	2	1
NQ02007	counting the correct amount of money when making purchases?.....	5	4	3	2	1
NQ02002	reading and following complex instructions (e.g., directions for a new medication)?.....	5	4	3	2	1
NQ02004	planning for and keeping appointments that are not part of your weekly routine, (e.g., a therapy or doctor appointment, or a social gathering with friends and family)?.....	5	4	3	2	1
NQ02005	managing your time to do most of your daily activities?.....	5	4	3	2	1
NQ02007	taking care of complicated tasks like managing a checking account or getting appliances fixed?.....	5	4	3	2	1
NQ02008	keeping important personal papers such as bills, insurance documents and tax forms organized?.....	5	4	3	2	1

Neuro-QOL Scale v1.0 – Communication

Communication

Please respond to each question or statement by marking one box per row.

	None	A Little	Somewhat	A lot	Cannot Do
NQ0001 How much DIFFICULTY do you currently have writing notes to yourself, such as appointments or 'to do' lists?.....	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
NQ0004 How much DIFFICULTY do you currently have understanding family and friends on the phone?.....	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
NQ0008 How much DIFFICULTY do you currently have carrying on a conversation with a small group of familiar people (e.g., family or a few friends)?.....	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
NQ0009 How much DIFFICULTY do you currently have organizing what you want to say?.....	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
NQ0011 How much DIFFICULTY do you currently have speaking clearly enough to use the telephone?.....	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1

Quality of Life Scales

- *ASHA Quality of Communication Life Scale (QCL; Paul-Brown et al., 2004)*
- *Dementia Quality of Life Scale (DQOL; Brod et al., 1999)*
- *Burden of stroke scale (BOSS; Doyle et al., 2004)*

ASHA Quality of Communication Life Scale (Paul-Brown et al., 2004)

2. It's easy for me to communicate.

3. My role in the family is the same.

Let's take a break!

- When we return, let's talk about
 - Interventions
 - Treatment approaches
- What is effective? What's the evidence?