

**AAC-RERC**



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# **AAC for Aphasia: Use of Visual Scene Displays**

Sponsored by

Rehabilitation Engineering Research Center in  
Communication Enhancement

Funded by

National Institute for Disability Rehabilitation Research  
U.S. Department of Education

# **AAC for Aphasia: Use of Visual Scene Displays**

## **Presenters (Order of Appearance)**

David Beukelman

Karen Hux

Miechelle McKelvey

Aimee Dietz

Kristy Weissling

# Visual Scene Displays

## Purposes:

1. To provide a brief introduction to persons with aphasia
2. To examine the role of context in aphasia intervention
3. To describe the Visual Scenes Display Project
4. To present experiences of 3 persons with aphasia

# Aphasia and Apraxia

- **Aphasia**: A language interpretation (reception) and formulation (expression) impairment resulting from an acquired brain injury
- **Apraxia of Speech**: A neurogenic speech disorder that is characterized by erroneous production of speech sounds, reduced rate of speech, increased time in transitioning between sounds, syllables, and words, and disordered prosody

# Review of Capability

- Reductions in comprehension and expression of language including retrieving words or sentence structures

# Review of Capability

- Relatively preserved intellectual ability
- Relatively preserved visual-spacial ability
- Preserved memory
- May experience reduction in processing speed, attention, problem solving

# Range of Capabilities

- Wide range of differences
  - Residual capabilities
  - Overall severity
  - Response to intervention

# Aphasia Intervention

- Reduce the severity of the impairment with the goal of restoring language processing.
- Develop and maintain compensatory strategies to support communication interaction
- Both

# Listeners

- Severe aphasia not only impacts the speaker, but also the listener(s)
- For more severe aphasia, the listener must play an important role in co-constructing messages and intents
- It is common for a person (or a couple of people) close to the individual with aphasia to adopt the role of communication facilitator or interpreter.

# Impact on Social Roles

- Prior to aphasia, the individual has usually lived a typical life with multiple social roles and relationship.
- Severe aphasia dramatically reduces one's social network
- A goal of intervention is to maintain and expand their social network.

# AAC and Aphasia

Wide range of strategies are currently employed to support communication interaction depending on needs and capabilities of the individual:

- Drawing (Lyons)
- Written Choice (Garrett)
- Communication Books: To support attempts to communicate through residual speech
- AAC devices--Often to support specific functions--telephone, presentations, routine communication such as greetings, prayers, jokes, and so on.

# Goal of the Current Project

- The VISUAL SCENES project is designed to develop strategies to provide persons with aphasia (and apraxia) with visual contextual support to navigate the options of AAC strategies and to communicate messages

# **Carl Olson**

## **Project Consultant**

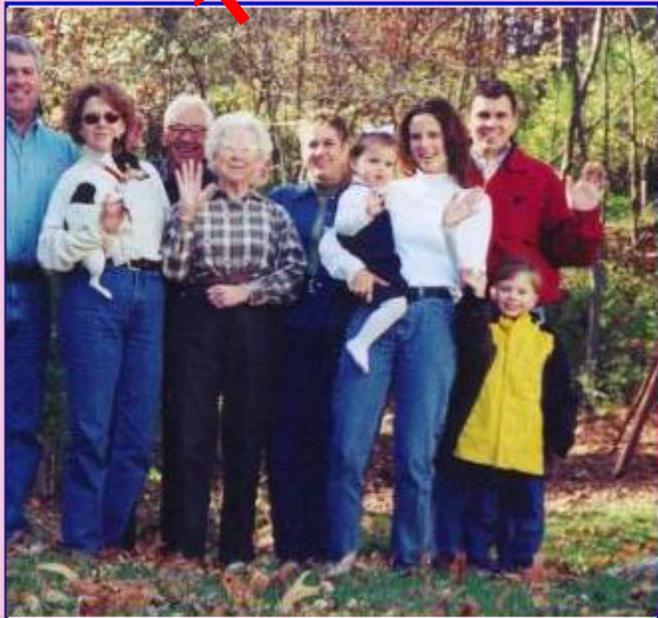


# Visual Scene Display: Introduction to the System

Miechelle McKelvey, SLP  
Rita Gembala, Aphasia Expert



Hello



My name is Rita Gembala



My husband's name is Ray.



My daughter is Cindy.



I had a stroke 3 years ago.



This device helps me to communicate.



I am in speech therapy at UNK.



UNK Group



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Home

Back



**Hello**



**Hello**

**Good bye**

**UNK  
Group**



**How are you?**

**It was good to talk to you.**



**Tell me what you  
have been doing.**

**Take care of yourself.**



**How is your family?**

**Come and see me  
again.**



**Hello to group**

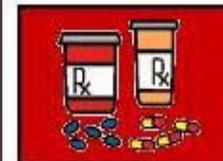
**Bye, thanks for  
stopping by.**



**I love you.**



1 2 3 4 5 6 7 8 9 10



**Home**

**Back**



Hello



+



Would you like to see my family?

?

UNK Group

Our children

+



Ray in Hawaii



Ray in the military

+



1 2 3 4 5 6 7 8 9 10



Home

Back



Hello



+



+

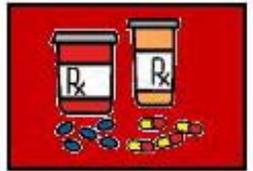
UNK Group



+



+



1 2 3 4 5 6 7 8 9 10

Home

Back



Hello



Our daughter Kathy and her husband Bill



They live in Norfolk



UNK Group



Here are their children.



1 2 3 4 5 6 7 8 9 10



Home

Back



Hello



Alec's trip to India.



He went there as part of a mission.



How about your family?



Kaitlin was in Jessica's wedding.



The boys looked good.



UNK Group



1 2 3 4 5 6 7 8 9 10

Home

Back



**Hello**



+

Would you like to see my family?

?

Our children

+

**UNK Group**



Ray in Hawaii

!

Ray in the military

+



1 2 3 4 5 6 7 8 9 10



**Home**

**Back**



**Hello**



Ray was in the military



We lived in Hawaii.



Have you ever been to Hawaii?



I visited all the towns on the island of Oahu.



How many Islands?



1 2 3 4 5 6 7 8 9 10

**UNK Group**



**Home**

**Back**



Hello



Arizona Memorial



Koko Head Crater



Do you know anyone on the Pearl Harbor Memorial?



By myself in 1947.



The flight to Honalulu



Facts about Hawaii.



UNK Group



1 2 3 4 5 6 7 8 9 10

Home

Back



Hello



Hello



Fine and you.



Talk to Ray



Just a minute



Good bye



I love you



UNK Group



1 2 3 4 5 6 7 8 9 10

Home

Back



Hello



Cindy



Mary Ellen



Kathy



Ray Jr



Bobby



1 2 3 4 5 6 7 8 9 10

Home

Back



UNK Group



Hello



This is my Red Hat Society group.



Red Hat Society was started by



Our group



My daughters got the group together.



Here are my girls.



1 2 3 4 5 6 7 8 9 10

UNK Group



Home

Back



Hello



I made hat pins.



I loved to do crafts



Cindy and I went shopping for the supplies.



The ladies really enjoyed the pins.



It was wonderful to give each member a special gift.



UNK Group



1 2 3 4 5 6 7 8 9 10

Home

Back



Hello



All the ladies had on funny hats and purple outfits.



Here I am putting the hat pins on some of the hats.



UNK Group



1 2 3 4 5 6 7 8 9 10

Home

Back



Hello



+

Brothers & Sisters

Granchildren

+

+

Marriage

Our Anniversary

+

+

My Children

Famous People

+

1

2

3

4

5

6

7

8

9

10

UNK Group



Home

Back



Hello



John Wayne



Roles he played



What is your favorite John Wayne movie



Clark Gable



Gone with the Wind.



What else have you seen him in?



1 2 3 4 5 6 7 8 9 10

UNK Group

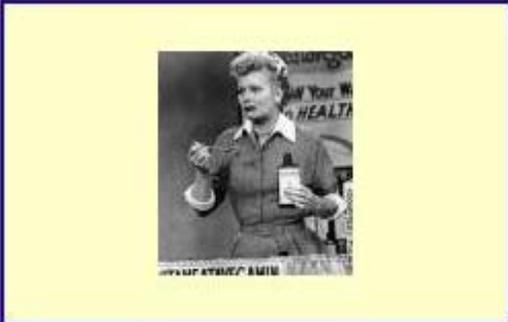


Home

Back



Hello



1 2 3 4 5 6 7 8 9 10

Clue 1



Clue 2



Clue 3



Clue 4



Clue 5



UNK Group



Home

Back



**Hello**



**Veteran's honor  
rose.**



**I love roses.**



**What kind of flowers do  
you like?**



**Mandevilla.**



**Tell me about  
your flowers.**



1 2 3 4 5 6 7 8 9 10

**UNK  
Group**



**Home**

**Back**



Hello



First Roses



45 years ago



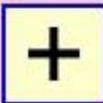
Tell me about your first house?



Golden Shower



Do you have a favorite flower?



1 2 3 4 5 6 7 8 9 10

UNK Group



Home

Back



**Hello**



**The mums are blooming.**



**Tell me about your favorite flowers.**



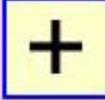
**UNK Group**



**Purple mums**



**Your favorite season.**



1 2 3 4 5 6 7 8 9 10



**Home**

**Back**



Hello



+



Please Clean

+

UNK Group

+



+



1 2 3 4 5 6 7 8 9 10



Home

Back



Hello



Floors



Vaccum



Dust



Toilet



Bath tub



UNK  
Group



1 2 3 4 5 6 7 8 9 10

Home

Back



# Theme Development

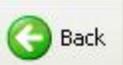
Aimee Dietz, SLP

# Meet Ron



# Meet Pat





File and Folder Tasks

- Rename
- Move
- Copy
- Publish
- E-mail
- Delete

Other Places

- PatsMasterFolder
- My Pictures
- My Computer
- My Network Places

Details

**nebraskabw.gif**  
 GIF Image  
 Dimensions: 535 x 336  
 Size: 7.48 KB  
 Date Modified: Wednesday,  
 September 25, 2002, 12:23 PM

- Toolbars
- ✓ Status Bar
- Explorer Bar
- Filmstrip
- **Thumbnails**
- Tiles
- Icons
- List
- Details
- Arrange Icons by
- Choose Details...
- Customize This Folder...
- Go To
- Refresh



cruisepose.jpg



cruise1.jpg



cruise inside.jpg



cruisedeck.jpg



cruiseharbor.jpg



cruisehurricanes.jpg



entertainment.jpg



entertainmentdancers...



entertainmentpose.jpg



HAWAII.GIF



hotel entertainment.jpg



hotel lobby.jpg



hotelcoffee.jpg



hotelpeople.jpg



hotelpose.gif



hotelview2.jpg



hotelview.jpg



MAUI\_SM.JPG



mountain.jpg



mountain-people.jpg



nebraskabw.gif



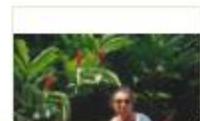
OAHU\_SM.JPG



pose.gijpg



scenery1.jpg









**I went to Hawaii with my husband Leroy.**

**S)))**

While I was there I went on a cruise with Leroy.

**S)))**

Have you ever been on a cruise before?

**?**

The pacific ocean is beautiful, have you ever seen it?

**?**

**Here is Maui, the main island of Hawaii.**

**S)))**

There was a lot I had to do before going to Hawaii.

**S)))**

**1 2 3 4 5 6 7 8 9 10**

**+**

**Main**

**Back**



While we were there we met  
Don Ho!

S)))

That was the best part of the  
whole trip!

S)))

Don Ho is my favorite singer.

S)))

His song "Tiny Bubbles" is my  
favorite song.

S)))

Have you ever met a famous  
person?

?

I bet you don't have a picture with  
him or have his autograph!

S)))

1

2

3

4

5

6

7

8

9

10

+

Main

Back

# Ron









Ron & Duke Canoes.jpg



Ron at GR put in.jpg



Cave on Green.jpg



Ron on the Green.jpg



Ron, Duke, Mark on  
Green River.jpg



ronkurtzer.jpg



Ronon canoe.jpg







Can you guess who these guys are?

?

Yes! That is me and Duke on the Green River in the 1980's

S)))

I took a 9-day trip with my buddies Duke, Ron, and Mark to Utah.

S)))

Here is shot of me at the 'put-in' of Green River

S)))

Would you like to see some more shots of this adventure?

?

More  
+

1 2 3 4 5 6 7 8 9 10

Home

BACK



**Pat**

**Ron**



# Low tech visual scenes

Kristy Weissling, SLP

# Context in therapy



1

2

3

4

5

6

7

8

9

10



Not good

ok

Very good

Today's session



1

2

3

4

5

6

7

8

9

10



Not good

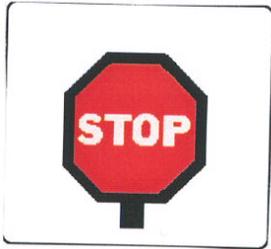
ok

Very good

Pictures you used

# Context in therapy

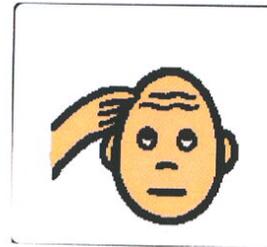
Stop



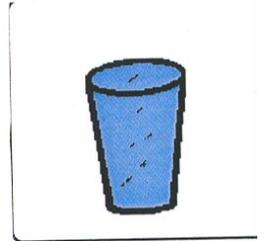
Keep going



I'm thinking



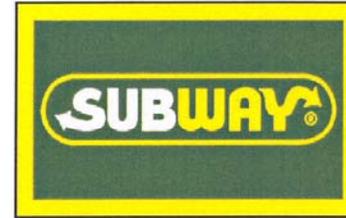
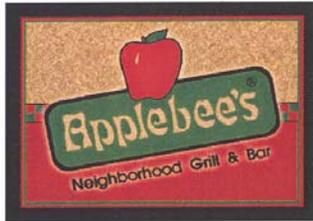
Water



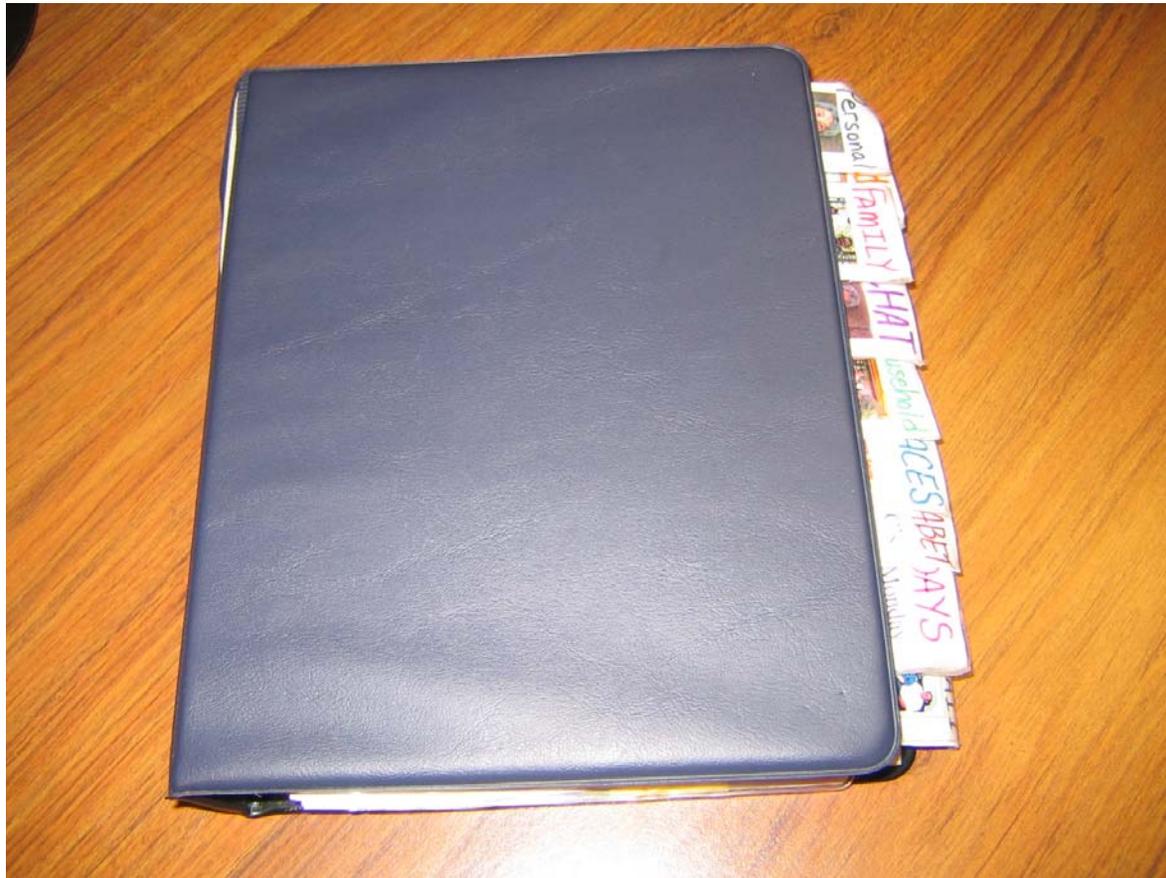
# Visual Scenes and traditional therapy

I want to eat at \_\_\_\_\_. Are we eating at \_\_\_\_\_?

Let's go to \_\_\_\_\_.



# Navigation



# More Navigation



# Context Based Communication Page

## Justin's Page

I have a son Justin he is 10 years old



Learning to jet ski



Building a ginger bread house



Playing Basketball



Playing with the dog



Catching a fish



Jumping in!

# Personal Centered Context



# **Visual Scene Display Project AAC-RERC**

**Sponsored by NIDRR, USDE  
<http://www.aac-rerc.com>**

David Beukelman, Ph.D.  
Project Director  
University of Nebraska, Lincoln

<http://www.aac.unl.edu>