

Sample Speech-Language and Augmentative Communication Evaluation

Using Speech Eval Checklist

7/8/2008

tobiiATI

Tobii ATI provides innovative hardware and software solutions for
individuals with disabilities or special education needs.

Speech-Language and Augmentative Communication Evaluation

Client's Name: John Gilmore

D.O.B.: 2-11-54

Age: 54

Primary Residence: Home

Street Address: 193 Wales Rd

City, State: Brooklyn, CT

Phone: 508-234-5678

Primary Insurance: Other: Harvard Pilgrim

Secondary Insurance: Medicaid

Physician: Dr. Joan Neuro

Physician's Phone: 508-456-7890

Occupational Therapist (if Applicable):

People interviewed for this eval: John and Sue Gilmore, Jacqueline Grenier

Date of Evaluation: 7-1-08

Speech-Lang. Path.: Kevin Woods, MA, CCC-SLP

SLP Phone: 508-123-4567

Facility Name (if Applic):

Speech Diagnosis: Severe Dysarthria. John first reported "slurred speech" in November of 2007

Primary Contact: Sue Gilmore

Contact's Phone: 508-345-6789

Insurance No.: 000000000

Insurance No. 101010101

Medical Dx: Amyotrophic Lateral Sclerosis diagnosed at the ALS clinic at UCONN Medical Center on January 12th, 2008

Physical Therapist (if Applicable): Jacqueline Grenier

PT Phone: 508-567-8901

Background Information

Hearing status left ear: Within Normal Limits

Hearing status right ear: Within Normal Limits

Does the person use amplification? No

Describe vision status: Other (Specify): Farsighted

Vision after correction: Within Normal Limits

Describe other implications:

Can the person reliably and consistently gaze at a fixed point? Yes No

Other Relevant Information about Sensory Status:

Does hearing status influence speech production?

No **If yes, explain:**

Does amplification restore hearing to within normal limits? N/A

If yes, in which ear? N/A

Does the person wear contacts/glasses? Yes

What are the implications of vision status for the use of a communication device? None Select Select

Motor Abilities

Does the person have good head control (ability to keep head in an upright position for extended periods and reliably turn/tilt head in the desired direction)? Yes No

Person has reliable and consistent motor responses sufficient to operate a speech generating device

Can the person point with one finger and keep that finger extended while pressing down on a surface?

Yes No

If applicable, describe limitations in head and/or hand movement: John's motor abilities fluctuate with the time of day and his level of fatigue. In general he is unable to move either his hands or arms due to severe bilateral spasticity and weakness. He has periods where he can activate a microswitch if strapped to his palm, but this ability is inconsistent.

Although he displays some uncontrollable head movements, and has a slightly limited range of motion, he has fairly reliable head control at this time and can consistently activate a switch placed behind his head. He does complain of neck fatigue by the end of the day, however. Due to the progressive nature of ALS it is uncertain how long this ability will continue. His ability to move his eyes is unimpaired both in terms of tracking and saccades movements. He has no other consistent voluntary movements available for controlling an SGD.

Does the person have voluntary and reliable control of their arms and hands ? Yes No

If no, what movement(s), anywhere on the body (i.e. eyes, eyebrows, cheek, knee, hand, toe...), does the person have most voluntary control over? Eyes and Head

Is the person Ambulatory? Yes No

Uses a Wheelchair (specify): Manual: Quickie IRIS Tilt Wheelchair
Pride Mobility

If a powerchair, person controls it through: head array

Communication device would be mounted to chair(s). Specify reason if more than one mount would be needed. He is unable to use his powerchair within the home or in small public areas. The mount for his powerchair does not fit his manual chair and a second mount is therefore needed. A mount is also needed for his bed as he is spending increasingly longer periods there.

Other Relevant Information about Motor Abilities:

Cognitive / Academic

Does this person attend school? No

Employed? No Had been employed as a Teacher

If yes, current grade level: N/A

Name of Employer:

If no longer in school, highest grade level completed: College Graduate

Can the person (check those that apply):

Read – At what grade level: Fully Literate

Can Spell - Approx No. of Words: Fully Literate

Has sight word vocabulary of about
words.

Can write single words

Visually attends to task

Can write full sentences

Has good memory for newly learned tasks

Can write in coherent paragraphs

Retains information well

Learns well with repetition

Recognizes functional symbols (bathroom, stop sign, exit, bus stop...)

Good Problem solving abilities

Recognizes numbers - Specify: All Numbers

Recognizes Pictures of objects. Responds best to: Any Image Type

Has cognitive skills needed to use Text-based systems

Other Relevant information about Cognitive level/skills: No cognitive limitations

Operational Knowledge

Demonstrates the knowledge needed to operate and navigate a voice output communication aid of the type: All systems

Speech-Language / Augmentative Skills

(Check all that apply)

Is the person currently receiving Speech-Language Therapy services? Yes No

If yes, from Whom? UConn Medical Center, Speech and Hearing Clinic, Hartford, CT

Duration of Services: 3 Months

What skills are being addressed? Compensatory strategies

What was the outcome of these services? John has learned some compensatory strategies for improving his intelligibility and uses these well. Traditional Oral Motor exercises are contraindicated as over fatigued muscles will be further weakened by this approach. A Speech Generating device is considered the only viable therapeutic approach for maintaining John's communication.

Is speech a viable method of communication for the person at this time? Yes No

Explain: Familiar listeners report that John needs to repeat himself approximately 50% of the time. He displays severe dysarthria associated with ALS and has poor respiratory support, decreased prosody and vocal intensity. His breath support and muscle strength will, in all likelihood, continue to decrease.

Prognosis for development of functional speech Good Fair Poor

The person shows strong preferences, likes and dislikes. List examples: Sports, music

The person is effective ineffective in communicating the things that they seem most motivate to communicate about

The person appears to be frustrated not affected by their difficulties in communication. If frustrated, this is evidenced by: withdrawal, anger.

In general, what happens if this person's communication is not immediately understood or attended to (Check all that apply):

- They stop trying to communicate
- They continue trying, but persist in using the same method of communication
- Their attempts become more emphatic (vocalizations become louder, pointing more...)
- They try communicating in different ways
- They exhibit maladaptive behaviors (hitting, throwing...)

The person exhibits a strong average weak desire to communicate

Have they shown increased desire to communicate when shown communication books, boards or devices? Yes

If yes, has the person tried to the book, board or device long enough to assess long-term motivation with this system? Yes

Describe their motivation to communicate over time using this system: John shows increased message production, initiation of communication and involvement with others

The person initiates communication frequently infrequently

The person's favorite topics include: Health issues, Politics, Sports, music

How does the person communicate "yes": Raising eyes or "no": vocalizations, looking to the side and down

Other Relevant Information about Motivation and Interests: John had been a highly motivated and involved communication partner prior to the onset of ALS. While his motivation and efforts to communicate fell off drastically after the onset of speech difficulties, the AAC systems employed with him have helped to increase this motivation.

The person communicates in the following ways (Check all that apply):

Speech – Describe Articulation and Intelligibility:
 Depending on the time of day and on his level of fatigue his speech varies from moderately to severely unintelligible. Given his breath support, his vocalizations are of low vocal intensity.

Vocalizations (sounds, not speech)

Facial Expressions

Motorically (pulling people to what they want, grabbing, pushing things away)

Whole hand pointing

Pointing with isolated finger

Symbolic Gestures (waving, “come here” gesture...)

Simple eye gaze (staring at what they want)

Alternating eye gaze (looking back and forth at a person and the thing they want)

Formal eye gaze communication system (etran, eye gaze board, electronic systems...)

If applicable, describe eye gaze system: See trial information

Object usage (Handing or in other ways manipulating objects in an attempt to communicate)

Picture Book/Board – Describe number of pictures/page, size of pictures, spacing, total number of pictures in book, how vocabulary is organized, accessed (direct selection, manual scanning, direct selection enhancements i.e. spacers, tabbing system): Manual scanning system / number-based etran book. The etran system is organized by topics with each topic numbered. There are six topics and a spelling board. John can say the numbers 0-4 (he says "O" for zero), 6, 7 intelligibly. To get to a topic he says the corresponding number. Vocabulary is then organized in numbered blocks, rows and columns. He speaks the number to narrow in on the block then row then column. When fatigued, he is presented with numbers and asked to raise his eyes when the correct number is spoken. This form of manual scanning is becoming more frequent as John's ability to speak deteriorates. This system is slow and severely limits his ability to communicate due to his inability to keep pace with a conversation as well as presenting him with a limited number of vocabulary items.

Uses written words

Uses a spelling or a spelling board

Sign Language – Approximate number of expressive signs **Receptive vocabulary:**

If applicable, brief description of signing skills:

Other Relevant Information about Expressive Skills:

Pragmatic Skills

The person uses their communication skills to:

Gain Attention

Request items/information from others

Request help

Accept or reject items from others

Protest / object to the actions of others

Greet

Participate in social small talk

Prolong or continue a conversation

Label people, places and things

Describe or provide information to others

Make basic needs known

Comment

Carry on a conversation

Relate stories

Reject

Elaborate on / Clarify information given

Other Relevant Information about Pragmatic Skills:

Receptive Language

The person's receptive language skills are commensurate with their age Yes No
The person's skills are adequate for use of the AAC system under consideration: X Yes No

If No to either of the above, Please answer the following:

The person follows No One Step Two step verbal commands or greater *without any cues or prompts*

The person understands Yes and No Questions *without any cues or prompts* Yes No Emerging

The person understands WH Questions Yes No Emerging

The person understands object labels and people's names Yes No Emerging

The person understands the functions of objects Yes No Emerging

The person understands abstract vocabulary Yes No Emerging

If applicable, describe the limitations in understanding of abstract vocabulary: no receptive language problems

Can the person demonstrate the ability to sequence events/information Yes No Emerging

The person understands categorization of vocabulary (i.e. animals, foods, sports,...)

Yes No Emerging (describe):

Other Relevant Information about Receptive Language Skills:

Effectiveness of Communication

On average, how well do the people in this person's environment understand the person's communication?
(rate effectiveness for each)

1 = Have no trouble understanding the person

2 = have some trouble, but understand most things

3 = Understand about half of what they communicate
person

4= Have significant trouble understanding the

Yourself (Specify relationship): Therapist 3

Family and Friends: 3

Medical Staff, Teachers, Employers: 4

Strangers: 4

Environment

The person lives in an environment where caregivers change Frequently Infrequently

Most people in the environment are are not supportive of finding an AAC Device

Most people in the environment are supportive of are not supportive of the person's current method of communication. (Supportive = methods are recognized and used by most people. Books, boards or devices are clean and are readily available to the end user...)

Most People in the Environment are are not familiar and comfortable with technology

If the person wears glasses or a hearing aid, are these typically clean and with the person? Yes No

The key people in supporting this technology will need training: X Yes No

Other relevant information about the Environment:

Environments in which AAC will be needed, Needed Methods of Communication and Partners

Environments	Methods	Partners
<input checked="" type="checkbox"/> Home	<input checked="" type="checkbox"/> Face to face	<input checked="" type="checkbox"/> Family
<input type="checkbox"/> School	<input checked="" type="checkbox"/> Telephone	<input checked="" type="checkbox"/> Caregivers (ADL)
<input type="checkbox"/> Work	<input type="checkbox"/> Instant Messaging*	<input checked="" type="checkbox"/> Health care providers
<input checked="" type="checkbox"/> Health Care Centers	<input checked="" type="checkbox"/> E-mail*	<input checked="" type="checkbox"/> Emergency care providers
<input checked="" type="checkbox"/> Community	<input checked="" type="checkbox"/> Text Messaging*	<input checked="" type="checkbox"/> Legal Professionals
<input type="checkbox"/> Other	<input type="checkbox"/> Internet*	<input type="checkbox"/> Teachers / Therapists
		<input checked="" type="checkbox"/> Peers / Friends
		<input checked="" type="checkbox"/> Individuals In the Community
		<input type="checkbox"/> Other:

***Explain the medical need for access to these methods:** John does not own a wheelchair van and has trouble finding transportation to his doctor's office. His physician has suggested staying in touch via text messaging and email to track his health. John's doctor has encouraged him to use the internet to educate himself about ALS and related issues as well as to participate in support group chat rooms.

History with Speech Generating Devices

Has the person owned an SGD? Yes No

Current age of Device (No. of Years owned): _____

If yes, Name of Device: _____

Is this device currently being used? Yes No

If not, describe why: _____

Does client's current SGD meet his/her medical needs? Yes No

Reason for replacing this device (if different from above): n/a

Other Relevant Information about History of AAC Device Use: _____

Trials with AAC Equipment

Systems Tried	Systems Tried
<input checked="" type="checkbox"/> MyTobii P-10	<input type="checkbox"/> Tech
<input checked="" type="checkbox"/> Mercury II	<input type="checkbox"/> Smart
<input type="checkbox"/> MiniMerc	<input type="checkbox"/> Say It
<input type="checkbox"/> LinkPlus	<input type="checkbox"/> Say It Sam
<input type="checkbox"/> LEO	<input type="checkbox"/> TuffTalker - Model:
<input type="checkbox"/> Dynavox V	<input type="checkbox"/> Freedom Toughbook - Model:
<input type="checkbox"/> Dynavox V Max	<input type="checkbox"/> Message Mate – Model:
<input type="checkbox"/> M3	<input type="checkbox"/> Talara
<input type="checkbox"/> DynaMo	<input type="checkbox"/> Macaw – Model:
<input type="checkbox"/> Dynawrite	<input type="checkbox"/> Talking Aid Wireless
<input type="checkbox"/> Lightwriter	<input type="checkbox"/> PolyTablet
<input type="checkbox"/> IChat / Palmtop	<input type="checkbox"/> Dubby II
<input type="checkbox"/> Advocate / Advocate +	<input type="checkbox"/> Polyana
<input type="checkbox"/> Echo 14	<input type="checkbox"/> Allora

- | | | | |
|--------------------------|-------------------------------------|--------------------------|--------------------------------------------|
| <input type="checkbox"/> | Pathfinder Plus | <input type="checkbox"/> | Spok21 |
| <input type="checkbox"/> | Vanguard Plus | <input type="checkbox"/> | Chat PC II |
| <input type="checkbox"/> | Vantage Plus | <input type="checkbox"/> | Easy Talk |
| <input type="checkbox"/> | Springboard Plus | <input type="checkbox"/> | Optimist 3HD |
| <input type="checkbox"/> | Springboard Lite | <input type="checkbox"/> | Dialect |
| <input type="checkbox"/> | | <input type="checkbox"/> | Optimist II |
| Other: | LC Technologies Eye Tracking system | Other: | Quick Glance 2S by Eyetech Digital systems |
-

Access Methods Tried

- | Method Tried | Method Tried |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Direct Access | <input checked="" type="checkbox"/> Linear Scanning |
| <input checked="" type="checkbox"/> Eye Tracking | <input checked="" type="checkbox"/> Row Column Scanning |
| <input checked="" type="checkbox"/> Head Mouse (Specify): Tracker Pro | <input checked="" type="checkbox"/> Block Row Column Scanning |
| <input type="checkbox"/> Joystick (Specify): | <input checked="" type="checkbox"/> Inverse Scanning |
| <input type="checkbox"/> Mouse | <input checked="" type="checkbox"/> Step (2 switch) Scanning |
| <input type="checkbox"/> Keyguards | <input checked="" type="checkbox"/> Switch (Specify): microswitch and a head mounted jellybean switch. |
| <input type="checkbox"/> Pointer (Specify): | <input type="checkbox"/> Other: |
-

Summary of Trial Results

While John has good head control, he has some residual movements that made it impossible for him to keep his head completely still as was required for obtaining calibration on the Quick Glance system. He needed to recalibrate the system periodically which caused him frustration and interfered with communication. John preferred and did best with using his head to hit the jellybean switch when making selections. This proved problematic for the Quick Glance system.

John experienced similar issues with the LC Technologies Eye Tracking system. LC's system seemed more sensitive to ambient light .

Of the three eye tracking/eye gaze systems tried, the MyTobii P-10 provided John with the best results. The Tobii system uses eye tracking technology that retains calibration despite extraneous head movements. Hitting the head switch did not cause any problems and resulted in faster, more accurate responses with less fatigue than when using dwell or other selection methods. The Tobii system is the only system tried that allowed for switch use in this manner.

John was unable to control the communication software on the Mercury using the Tracker Pro. This was due to the random head movements and difficulty controlling the cursor with the Tracker due to range of motion limitations. He found the Tracker frustrating to control and complained of fatigue after using it for a short period.

Different page sets were tried. While John was capable of using Semantic compaction and while this system offered speed and flexibility in communication, it required too much time and energy to learn and John expressed a desire to use typing and words to communicate.

Various pagesets were tried. Software offering word and next word prediction, phrase-based as well as single word options paired with typing were judged to be the most effective features for John. In addition, because of

transportation difficulties, it is essential that John stay in touch with his physician via email and text messaging. For these reasons, Socially Speaking appeared to be the most effective page set for John.

Implications

John demonstrated a high level of motivation and success using the MyTobii P-10 unit over the course of a two week trial. His communication was greatly enhanced due to the sophisticated nature of the communication software on the MyTobii P-10 and it gave him the ability to communicate with care givers and health care workers in a variety of ways. The rate enhancement features of the Socially Speaking software such as word prediction, next word prediction, phrase prediction and phrase lists made his communication more rapid and less fatiguing and gave him readily accessible vocabulary for discussing his health care needs. Given the degenerative nature of ALS and the resulting urgency of his needs and his success with this trial, I believe that no additional trials are needed and that the MyTobii P-10 is the most appropriate treatment for achieving the functional goals stated in his treatment plan.

Required Features

(Ideal specifications for this person – Check all that apply)

- | | | | | | |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------|----------------------------------------------------------------------|-------------------------------------|----------------------------------------------------------------------------------|
| <input type="checkbox"/> | Auditory scanning or auditory mouse over | <input type="checkbox"/> | Digitized speech (Recorded) No. of Minutes: | <input checked="" type="checkbox"/> | Storage Capacity in Mb/Gb (i.e. Flash or Hard Drive): 4 GB or higher |
| Reason for size of storage capacity: Storage of photographs for use within his communication software | | | | | |
| <input checked="" type="checkbox"/> | Voice output | <input checked="" type="checkbox"/> | Synthesized speech (Specify voice): High quality male voice | <input type="checkbox"/> | PCMCIA Card Slot |
| <input type="checkbox"/> | Message generation via pictures | <input checked="" type="checkbox"/> | Symbol Set: Photos | <input checked="" type="checkbox"/> | Switch Jacks (Number): 2 |
| <input checked="" type="checkbox"/> | Message generation via words and/or letters | <input type="checkbox"/> | Ability to zoom in on (magnify) an area of screen prior to selection | <input type="checkbox"/> | Output Jack |
| <input checked="" type="checkbox"/> | Word and/or phrase prediction | <input type="checkbox"/> | CD/DVD Drive | <input checked="" type="checkbox"/> | USB Ports (Number): 2 |
| <input checked="" type="checkbox"/> | Phrases/Phrase prediction | <input checked="" type="checkbox"/> | Screen size (Diagonal): 15" | <input checked="" type="checkbox"/> | Multiswitch/Joystick Port |
| <input checked="" type="checkbox"/> | Message window for composing message prior to speaking it | <input checked="" type="checkbox"/> | Weight: N/A as it will be mounted | <input checked="" type="checkbox"/> | Mounting plate for W/C Mount |
| <input checked="" type="checkbox"/> | Have buttons speak immediately when selected | <input checked="" type="checkbox"/> | Display Type: Dynamic | <input type="checkbox"/> | Shoulder strap |
| <input checked="" type="checkbox"/> | Number of message buttons/screen: 64 | <input checked="" type="checkbox"/> | Battery life (Specify): 6 hours+ | <input checked="" type="checkbox"/> | Wheelchair mount (Specify): Daessy - one for powerchair and one for manual chair |
| <input checked="" type="checkbox"/> | Best access method for this person: DS Eye Tracking | <input type="checkbox"/> | External Battery Charger | <input type="checkbox"/> | Table top stand |

Size of message buttons/cells: Keyboard Bed stand
 1.5 inch
 Spacing between Message Mouse Carrying case
 Buttons/Cells: .15" (Describe):
 Type of system needed: If multiple mounts are needed, list reason: Each chair requires a
 Integrated different mount and he is spending more time in bed where a bed
 mount is required

Recommendations and Rationale

MyTobii P-10 Package w/ Eye Tracking option, VS Communicator 4.x Pro and Socially Speaking software. \$x,xxx.xx
 Daessy mount for Manual Chair (specify which one on actual report) \$ xxx.xx
 Daessy mount for power chair (Specify which one on actual report) \$ xxx.xx
 Bed Mount (specify on actual report) \$ xxx.xx
 Ablenet Jelly Bean switch (red) \$ xx.xx
 AT&T Voice (Michael) \$ xx.xx

Treatment Plan (include needed training and supports)

While John, his wife and family show enthusiasm for the system, they also show a degree of technophobia and will require training and on-going support to maintain and update the system as needs arise. John and his caregivers will receive up to 8 hours of training on the care, maintenance and programming of the system. This training will be done in part by the manufacturer of the system as well as by the SLP. John's son, Peter, has more experience with technology and has agreed to be the pointman for maintaining and updating the system as needed.

In addition, the SLP will work with John and Peter to customize the system as needed. Additional hours of service will be provided to John as changes in his medical status require. This includes consideration of changes needed for access, and positioning and lexical needs.

John will be scheduled for regular visits to the ALS clinic where he will receive training and support from the SLP, OT and PT around use of this system.

Signatures

MAKE SURE TO SIGN and Date

 Kevin Woods, MA, CCC-SLP Date
 Speech-Language Pathologist

Note: The Speech-Language Pathologist conducting this evaluation has no financial relationship with, nor will receive any financial gain from the supplier of the recommended equipment.

