



# Sensory Stimulation Kit

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## II. PHILOSOPHY

Sensory stimulation is an intervention approach designed to facilitate an adaptive response. An adaptive response may be simply defined as a purposeful goal directed response to sensory experience. In order for an adaptive response to occur, the nervous system must be able to perceive stimulation (sensory input), organize and interpret the information and then act upon it (motor output). In order for a person's nervous system to be able to efficiently organize and interpret this information, it must reach a "primed" state - a "primed" state is when the nervous system is near homeostasis which means it is neither over nor under aroused and, consequently, behavior is neither over nor under aroused. It is in this primed state that learning/relearning can most efficiently occur.

Sensory stimulation to activate adaptive responses is provided by this kit through presentation and manipulation of auditory, olfactory, gustatory and tactile materials. These materials and activities can also be used to provide kinesthetic and vestibular sensory input.

The purposes of sensory stimulation activities/programs are as follows:

1. Facilitate homeostasis (balance) within a person's nervous system so that learning/relearning can occur more efficiently
2. Heighten the person's awareness of himself and his surroundings (body scheme, bilateral integration)
3. Elicit mature reflexes and motor responses from sensory input
4. Prevent sensory deprivation
5. Increase range of motion and help prevent contractures
6. Facilitate mobility
7. Provide an optimal environment in which integration of input can occur
8. Provide a basis to determine the best modality for communication (when appropriate)
9. Assist in normalizing muscle tones
10. Improve eye hand coordination and ocular motor control (i.e., visual perceptual skills)
11. Improve behavior
12. Improve attention span
13. Facilitate the capacity to screen out irrelevant sensory input and to focus on relevant input
14. Facilitate the sensorimotor foundations necessary for learning/relearning skills in self care, work, rest and play/leisure

Because of the diversity of goals that sensory stimulation can address, this kit may be appropriate for a variety of diagnoses. The populations that are well served by this kit include head injury, (Levels I to III on the Rancho Los Amigos Scale of Cognitive Levels and Expected Behaviors), cognitive/intellectual/developmental disabilities (severe/profound level), pediatrics (sensorimotor development stage) and geriatrics (end stage Alzheimer's disease).

### III. KIT CONTENTS

- 1. AUDITORY:** Mini massager  
Bell Toy  
Nature sounds cassette  
Empty jars  
Clacker
- 2. VISUAL:** Color materials  
Emery Board  
Feathers  
Wipe off calendar  
Photo frame  
Flashlight  
Bell toy/Grip ball  
Mirror  
Comb  
Toothbrush  
Spoon  
Communication cards  
Clacker
- 3. OLFACTORY:** Potpourri  
Cedar balls  
Scratch & Sniff  
Empty jars
- 4. GUSTATORY:** Breath deodorizer
- 5. TACTILE:** Satin material  
Emery boards  
Velour material  
Feathers  
Cotton pads  
Gel ball  
Mini massager  
Bell toy/grip ball  
Wood balls  
Wood block  
Putty  
Comb  
Toothbrush  
Spoon
- 6. COGNITIVE:** Emery board  
Feathers  
Calendar  
Photo frame  
Wood balls  
Flashlight  
Wood block  
Comb  
Toothbrush  
Spoon  
Communication boards

## IV. GUIDELINES

### **IT IS SUGGESTED THAT THESE GUIDELINES BE REVIEWED PRIOR TO BEGINNING SENSORY STIMULATION ACTIVITIES!**

The sensory stimulation activities provided in this manual are aimed at increasing the quantity of adaptive responses for people with developmental disabilities, acquired brain injury and degenerative brain diseases.

To optimize the therapeutic effects (responses) from sensory stimulation, several steps should be completed prior to attempting any structured stimulation.

1. Use an interdisciplinary approach involving family/direct care givers to help reinforce and generalize the learning that is being facilitated and to promote on-going active treatment
2. Complete a comparison baseline observation of motor output of the person in his/her normal environment as well as treatment environment (if possible)  
(See baseline assessment form in appendix)
  - a. Note any differences in type, frequency and duration of responses
  - b. Note whether the responses appeared to be in response to internal or external/environmental stimuli. If responses made to external stimuli, what type?  
(This step is crucial for determining a starting point for treatment, documentation of progress and for acting as a guide to distinguish the difference between the person's response to external stimuli and a spontaneous response to internal/indistinguishable stimuli.)
3. Keep in mind that overall sessions should be limited to 15 minutes, or as tolerated
4. Obtain any necessary medical orders, including any contraindications
5. Review the person's medical history and chart
6. Obtain clearance from team/physician/family/caregivers for treatment
7. Provide an optimal living environment that is conducive to learning (i.e., turn off radio, hide any visually distracting items out of view, limit people and movement in room, pull curtains)
8. Provide an optimal living environment that is conducive to carry over of learning (i.e., comfortable, familiar environment with a few familiar pictures/personal items, familiar music and lighting levels that conducive to arousal level)
9. Introduce (orient) yourself to client, then orient client to the activities/purpose of the session (if appropriate)

## GUIDELINES FOR SENSORY STIMULATION SESSIONS:

1. Sensory stimulation activities should be started by presenting one modality initially, in order to determine which type of stimulus produces responses. This time can be considered both a continuation of baseline data and as a beginning of treatment. Present each stimulus in a consistent manner 3-5 times, allowing ample time for a response in between each presentation. Some responses may indicate that stimulation was not well tolerated (i.e., see sympathetic responses). These stimuli should be presented in very small amounts and gradually increased as toleration improves. The end goal is a positive reaction/adaptive response.
2. **BE AWARE OF SENSORY OVERLOAD.** When the person stops responding or has strong and/or repeated sympathetic responses, sensory overload may be occurring. When this is the case, the activities should be stopped immediately. One of two conditions may be present:
  - a. The person is accommodating and is no longer able to distinguish between sensory stimuli
  - b. The person is overstimulated and can no longer adaptively respond to incoming stimuli

Be aware that by providing too much stimulation (too long in duration, too high in frequency, too many at one time) a person can become overloaded. This can result in sympathetic responses such as changes in vitals, hyperactivity, agitation or complete cessation of responses. Allow for rest periods between modalities and between sessions to prevent sensory overload. Also, it is strongly suggested that sessions be kept short but repeated frequently throughout the day (long sessions once or twice a day may do more harm than good).

3. As sessions progress, multisensory stimuli should be presented and increased in frequency and duration as the person's responses progress. A multisensory stimuli can be combined to reinforce input. Ideally, cognitive integration of the sensory input will produce maximum stimulation and response, i.e., when a therapist/caregiver assists the person with an arm movement and states "move your arm", the following senses are stimulated - auditory (request to move arm), tactile (therapist's hands on person's arm) and kinesthetic (movement of arm through space).
4. The types and ways in which the stimulation is given should be considered in response to the person's arousal level and behavior at the beginning of the session, and should be modified appropriately as the session continues. For example, if the person is under aroused at the beginning or during the session, the environment and modalities should be facilitatory to increase arousal or "prime" the nervous system.

Conversely, if the person is over aroused (hyperactive/agitated) at the beginning or during the session, the environment and modalities should be inhibitory to "prime" the nervous system for the most efficient integration and output (see lists below for sympathetic and parasympathetic environments, stimulation techniques and responses).

5. The types of responses that may be elicited from sensory stimulation are as limitless as human behavior. Below are lists of possible environments, stimulation techniques and responses:

### STIMULATING ENVIRONMENTS AND TREATMENT TECHNIQUES:

1. Auditory: Fast, loud, irregular rhythms or unexpected noises
2. Visual: Bright lighting, bright colors and an increased amount of visual input
3. Olfactory: Noxious/unpleasant odors (heavy perfumes, skunk scent)
4. Gustatory: Cold fluids or fluids with a noxious/unpleasant taste (lemony, salty or bitter)
5. Tactile: Quick taps to muscle/belly, light touch pressure
6. Cooler room temperatures
7. Quick movements

## **INHIBITING ENVIRONMENTS AND TREATMENT TECHNIQUES:**

1. Auditory: Slow, repetitive rhythms, steady background noise
2. Visual: Reduced light, cool colors such as pastels and a decreased amount of visual stimuli
3. Olfactory: Light perfumes, familiar, pleasant odors
4. Gustatory: Warm fluids and favorite tastes
5. Tactile: Deep prolonged pressure
6. Vibration
7. Warmer room temperatures and neutral warmth (wrap body or body part in a cotton blanket or towel for 15-20 minutes)
8. Slow, rhythmic movements (rocking)

## **POSSIBLE RESPONSES:**

### **1. Reflexive:**

- Eye movement
- Spinal and brainstem reflexes (flexor withdrawal, extensor thrust, crossed extension)
- Brainstem reflexes (ATRNR, STNR, Tonic Labyrinthine, associated reactions, supporting reactions)
- Midbrain reactions (neck, body and labyrinthian righting, optical righting)
- Automatic movement reactions (startle [Moro], Landau and protective extensor)
- Cortical level equilibrium reactions
- Gag reflex
- Suck/swallow reflex
- Tongue pumping
- Salivation/drooling

### **2. Sympathetic (fight or flight):**

- Stiffening of limbs/muscle activation
- Vasoconstriction causing blanching of skin
- Increased vitals (heart rate, respiration, blood pressure)
- Increased arousal levels
- Pupil dilation
- Cessation of peristalsis

### **3. Parasympathetic (calming/homeostasis)**

- Relaxation of muscles
- Vasodilation
- Decreased vitals (heart rate, respiration, blood pressure)
- Decreased arousal levels
- Pupil constriction
- Peristalsis

### **4. Volitional Adaptive Response (elicitation of purposeful motor output in response to sensory input which is the purpose of this Sensory Stimulation Kit):**

- Eye movement (opening, closing, tracking, fixating)
- Head movements (turning or orienting to [pleasant] or away from [noxious] stimulus)
- Facial movements (smiling [pleasant], frowning [unpleasant], recognition of a stimulus [combination of eye/eyebrow/mouth movement])
- Lip opening, jaw opening, mouth and tongue movements, swallowing
- Body movements that are goal oriented
- Reach/grasp
- Manipulation of stimulus items
- Communication
- Interaction with other people and objects in the environment



## **V. SENSORY STIMULATION ACTIVITIES**

1. Auditory Stimulation
2. Visual Stimulation
3. Olfactory Stimulation
4. Gustatory Stimulation
5. Tactile Stimulation

### **1. AUDITORY STIMULATION**

**AIM:** To increase attention to sound and to elicit responses to different auditory stimuli

#### **SPECIFICALLY LOOK FOR:**

1. Localization of eye gaze towards the sound source
2. Visual tracking of auditory stimuli
3. Startle reaction
4. Calming effect from inhibitory stimuli
5. Head turning

#### **CONSIDERATIONS:**

Before presenting auditory stimuli, review the person's medical history to determine current hearing status, if results are available from brain-stem evoked potentials (post-onset for acquired brain injury).

#### **ACTIVITIES:**

When presenting auditory stimuli, maintain a quiet environment as free from distracting extraneous noise as possible. Avoid engaging in conversation with others in the room.

Auditory stimuli may be presented in a progression from gross, non-speech sounds, to more finely discriminated speech sounds (Adamovich et al., 1985).

1. Always explain to the person who you are and what you are going to do. Since the sound of one's voice alone can provide stimulation, pay attention to the rate, volume and quality of verbal presentations. Speech rate should be slow, with prolonged pauses between words and phrases. Commands should be brief and simple. Talking loudly may increase the person's level of arousal, thus eliciting a response. In addition, speaking in a variety of tones may help increase the person's level of alertness. (Johnson, 1990).
2. Provide exposure to loud auditory stimuli:
  - Clap your hands
  - Blow a whistle
  - Ring a bell
  - Honk a horn
  - Crinkle tissue paper
  - Blow noise makers
  - Spin the clacker

Present the stimuli to each ear (allowing for hearing acuity differences). The person's head may be manually turned towards the stimuli initially. Gradually move away from the person and present auditory stimuli from different locations in the environment. Determine where responses have been elicited and continue to stimulate accordingly. Avoid presenting excessively loud noises (hammering) as this may contribute to sensory overload.

3. Fill the empty jars provided in the kit with seeds, beans, dried peas, etc. to produce a rattling sound for auditory stimulation
4. Call out the person's name while moving around the room
5. Play tapes of familiar sounds or voices; for example, family members talking of activities that the person enjoyed (sports, hobbies, travel, etc.)
6. Play tapes of the person's favorite music
7. Play the nature sounds disk provided in the kit. It will provide the person with relaxation in addition to stimulation

8. Provide background auditory stimulation via talking books or by playing the person's favorite television/radio program. However, the stimuli should be turned off when the program is over or when visitors enter the room
9. Provide auditory commands whenever you work with the person, i.e., if you are lifting the person's legs, say "up" or "legs up"
10. Provide auditory input when stimulating the person's other senses, i.e., during gustatory stimulation, when placing lemon swabs on the tongue, say "sour"

## **2. VISUAL STIMULATION**

**AIM:** To increase arousal/attention through stimulation of the visual system

### **SPECIFICALLY LOOK FOR:**

1. Eye opening
2. Closure response
3. Eye blinking
4. Visual fixation and/or tracking of stimulus item
5. Eye turning or movement toward stimulus item
6. Pupil constriction or dilation

### **CONSIDERATIONS:**

#### **1. VISUAL FIELD DEFICIT:**

A person may have a visual field deficit. Present stimuli both horizontally as well as vertically, to reach left and right vision field. A typical "H" pattern in central vision space surrounding the face touches all visual field quadrants.

#### **2. NEAR/FAR ACUITY DEFICITS:**

Near or far acuity deficits may be present. Stimuli should be shown at varied distances to accommodate near and far vision.

### **ACTIVITIES:**

1. Darken the room and provide a light, using the kit's flashlight slowly, approximately 4-5 inches (10 cm) from each eye looking for eye opening and/or pupil constriction
2. Still in the darkened room, move the kit's flashlight slowly approximately 10 inches, making an "H" and/or circular pattern at a distance of 8-10 inches from the person's face (near tracking)
3. In the darkened room, at a distance of 2-4 feet from the client, use the flashlight to make an "H" and/or circular pattern against the ceiling or wall
4. Repeat steps #2 and #3, using brightly colored objects (the satin material in the kit may be used); use colors of high contrast since bright colors stimulate (pastel colors, by contrast, have a calming effect)
5. Increase the complexity of objects used for visual stimulation. From the kit, use the family photograph, the calendar, the toothbrush, comb and spoon as stimuli and look for visual recognition of the familiar, daily objects.
6. Combine the use of auditory with visual stimulation by using verbal commands, i.e., "Look at the light". Sound-making objects, such as the kit's ball with bell inside, may be used as a tracking object. Ring the bell as it is moved slowly across the person's line of vision.

## **3. OLFACTORY STIMULATION**

**AIM:** To stimulate the person's reactions to different smells

### **SPECIFICALLY LOOK FOR:**

1. Facial grimacing (frown, eyebrow movements)
2. Sniffing
3. Recognition
4. Purposeful rejection of stimuli (i.e., pushing away clinician's hand when presenting noxious stimuli)
5. Withdrawal from stimuli (head movement away)

6. Reflexive swallowing
7. Salivation
8. Suckling movements
9. Drooling

### **CONSIDERATIONS:**

1. Before presenting olfactory stimuli, determine from the person's medical history whether Cranial Nerve I has been damaged. This will serve as an indicator for possible decreased responses.
2. If the person is on a tracheotomy tube, check with the physician or primary nurse, whether corking or plugging of the trach is permitted for the purpose of olfactory stimulation.

### **ACTIVITIES:**

1. When presenting different smells, place each stimulus item beneath the nose for short periods of time (approximately 15 seconds to 3 minutes)
2. Present no more than three stimulus items at one time, as you may see a "drop off" response which could invalidate the data (unless you wait 30-60 seconds between presentations)
3. Pausing between the presentation of stimuli allows for full processing of olfactory senses
4. If the stimuli makes contact with the skin (nostrils, lips), those areas should be cleansed before presentation of the next smell
5. Alternate the presentation of stimuli, i.e., pleasant, then familiar, then noxious stimuli

### **OLFACTORY STIMULI MAY INCLUDE:**

1. PLEASANT STIMULI:
  - a. Kit items:
    - Potpourri
    - Cedar wood balls
    - Scratch and sniff sheets: pleasant scents
  - b. Other suggested items:
    - Flowers
    - Vanilla food extract
    - Scented candies
    - Scratch and sniff sheets
2. FAMILIAR STIMULI:
  - c. Suggested items:
    - Perfume
    - After shave
    - Coffee, spices (cinnamon, cloves, nutmeg)
3. NOXIOUS STIMULI:

Avoid use of irritating smells. When presenting noxious stimuli, do not place too close to avoid burning of irritation to the nasal passages.

  - a. Kit items:
    - Scratch and sniff sheets: noxious scents
  - b. Other suggested items:
    - Smelling salts (ammonia)
    - Garlic
    - Onion
    - Vinegar

Extra jars are also provided in the kit for use with additional olfactory stimuli.

## **4. GUSTATORY STIMULATION**

**AIM:** To facilitate reactions to different tastes and to elicit gross oral motor movements as pre-feeding stimulation

### **SPECIFICALLY LOOK FOR:**

1. Tongue pumping
2. Salivation
3. Reflexive swallowing
4. Drooling
5. Suckling movements
6. Recognition
7. Facial reactions
8. Gag reflex

### **CONSIDERATIONS:**

1. Before presenting gustatory stimuli, determine the person's readiness for oral stimulation from the professionals involved in the person's dysphagia management.
2. Present stimuli, allowing for pause time of 30-60 seconds between presentations. Avoid presenting more than three different stimulus items in succession, as a "drop off" response may be elicited, which could invalidate the data.

### **ACTIVITIES:**

If the person responds to the command to open his mouth, then each stimulus item may be presented directly onto the tongue (not the lips). If necessary, the mouth may be manually opened by depressing the jaw and a bite block may be positioned to maintain mouth opening.

### **PRESENTATION OF STIMULI MAY BE BY:**

1. Eye droppers for liquid stimuli
2. Swabs of Q-tips for non-liquid stimuli
3. Sprays

### **GUSTATORY STIMULI WHICH ARE SWEET, BITTER AND SOUR INCLUDE:**

1. PLEASANT STIMULI:
  - a. Kit items: breath freshener
  - b. Other suggested items:
    - Liquid saccharin
    - Coffee
    - Ice cream
    - Vanilla extract
2. UNPLEASANT (NOXIOUS STIMULI):
  - a. Suggested items:
    - Liquid bitters
    - Vinegar
    - Lemon juice
    - Vinegar
    - Garlic
    - Salt

## **5. TACTILE STIMULATION:**

**AIM:** To optimize arousal levels and body awareness through tactile stimulation including touch, pressure, pain, temperature and vibration

### **SPECIFICALLY LOOK FOR:**

1. Eye opening/closure
2. Head turning towards or away from stimulus
3. Extension or flexion of limbs stimulated
4. Facial expression changes (i.e., grimace, smile)

### **CONTRAINDICATIONS:**

All activities should be tried by the therapist on self to familiarize oneself with the sensation of the different materials (techniques). Carefully monitor the person for changes in vitals, particularly with application of hot/warm/cold stimuli. Monitor vitals for increased or decreased heart rate, respiration or blood pressure. If vitals change, cease activity/stimulus.

### **CONSIDERATIONS:**

1. Excitatory techniques include fast applications with rough, abrasive textures, irregular rhythm to applications, light pressure and quick strokes. These all can be irritating and may not be tolerated well.
2. Inhibitory techniques include slow, long, gliding strokes with soft textures as well as firm pressure/deep touch which is usually tolerated well, as is neutral warmth.
3. Apply techniques to the face, to both right and left extremities, as well as to the dorsal and volar (front/back) surface of trunk as there may be a sensory loss or impairment on one side.

### **ACTIVITIES:**

#### **1. RUB THE ARMS, LEGS AND FACE WITH DIFFERENT TEXTURES:**

##### **a. Kit items:**

- Satin material
- Feather
- Cotton balls (pads)
- Shoe polish cloth
- Emery board (avoid face)
- Toothbrush
- Comb
- Gel balls
- Wooden block
- Sponge
- Putty
- Mini massager

##### **b. Other suggestions:**

- Hand lotion/cream
- Powder
- Towel

2. Place objects of various textures in the person's hand (close the hand around the object if the person does not grasp). Assist in manipulating the objects so that the finger tips receive the sensory stimulation. Look for recognition of objects.
  - Toothbrush
  - Wooden ball
  - Comb
  - Block
  - Emery board
  - Safety pin (keep closed for safety)
  - Gel ball
  - Sponge
  - Large paperclip
  - Pencil
  - Putty
3. Squeeze fingers, toes or hands with firm pressure for 1-2 minutes (look for localization, recognition and nonexistence or presence of reflexive withdrawal).
4. Gently, but quickly, tap finger tips (caution is required if the clinician has long nails) on the person's face and extremities using firm pressure.
5. To elicit oral peripheral responses, provide light tactile stimulation to the lips, tongue, palate and cheeks (internally and externally) using a tongue blade. Such facilitation serves as pre-feeding training, in addition to providing stimulation.
6. Apply wet, cold sponge, cloth or towel to the face, arms and legs.
7. Apply wet, warmed cloth or towel to the face, arms or legs.
8. Apply warmed hot packs (taking care not to burn the skin). Look for redness and/or white blanching of the skin. Monitor vitals, as appropriate, and watch for increased or decreased heart rate, respiration or blood pressure.
9. Apply cold packs. Monitor in the same manner as described for application of hot packs. Duration of application is dependent on person's responses.
10. Use a vibrator over the limbs and face. Avoid bony prominences such as knuckles, elbows, knees, ankles, jaw, forehead, etc. Apply vibration for 2-4 minutes over the belly muscle.
  - 30 seconds of vibration provides adequate input
  - Vibration should not be applied for more than 1 to 2 minutes at a time, with ample time between stimulations (several minutes) to avoid overstimulation and to note any rebound effects
  - Vibration should not be applied if it accentuates a motor disorder such as characterized by athetoid movements, high muscle tone or spasticity.
  - Vibration should not be applied to cubital fossa at elbow or knee
  - Light application versus deep pressure provides a longer lasting and more therapeutic effect

NOTE:

- *Cold, hot, wet and vibratory applications can be considered modalities, thus clinicians need to be aware of state laws/therapist licensing which govern their need for physicians orders prior to applications*
- *Only those professionally trained in their use should proceed to use the modalities in this program*

## VI. COGNITIVE STIMULATION ACTIVITIES

Cognition has been defined as “the conscious process of awareness and knowledge of objects through perception (sensory), memory and reasoning; mental process of knowing and understanding; an ego function - thinking, judgment,” (Willard & Spackman 1983).

It is generally believed that sensory stimulation facilitates basic cognitive functioning by addressing recognition of self within the immediate environment.

Present cognitive stimulation in a distraction free environment. Stimuli should be presented using normal speech volume (unless the person is hearing impaired) and at a slow, but steady pace, to provide adequate processing time. Information and/or directives should be simple, concise and confined to single concepts or points of information, i.e., “It’s sunny,” “Blink your eyes,” “Raise your arm.”

### NOTE:

*Arousal is a minimum pre-requisite for cognitive stimulation*

#### 1. COGNITIVE INTEGRATION OF AWARENESS OF SENSORY INPUT:

- a. When presenting simple tasks, multisensory stimuli should be combined to reinforce the cognitive processes.
- b. The clinician should always verbalize what he/she is doing (auditory) when providing hands-on treatment (tactile), which can be vestibular and/or kinesthetic, depending on the activity. If the activity is performed in front of the mirror, then the visual component is incorporated.

#### 2. ORIENTATION:

- a. All staff and visitors should introduce themselves, address the person by name and provide the following orientation information:
  - Place - Describe the environment
  - Time
  - Upcoming procedure/activity

Depending on the person’s level of cognitive functioning, orientation information should be modified accordingly, i.e., time may be morning, afternoon, evening or day of the week (general) vs the actual date - month, year, day (specific).

- b. Play tapes of family members describing the person’s pre-morbid interests, occupation and lifestyle, with a brief explanation of the purpose for hospitalization.
- c. When eye opening occurs, present photographs of the person, family, friends, pets, etc. A photo frame is provided in the kit for this purpose.

**NOTE:** Steps (b) and (c) may be introduced simultaneously, if cognitive functioning permits

- d. As level of arousal and alertness increases, it is recommended that orientation be provided in a systematic manner:
  - (1) SELF: Ask the person to state his/her name. If the person is unable to do so, provide the initial sound of the name as a clue. If the person is still unable to produce his/her name, then state the name, and if possible, facilitate repetition by the person.
  - (2) PERSON: As level of cognitive functioning improves, orientation to person (biographical data: address, date of birth, age, etc.) may be presented and elicited.
  - (3) PLACE: Ask the person if he/she knows where he/she is. If he does not know, or does not respond, provide general information, i.e., “You are in a hospital.” Progress to asking the name of the facility, using initial sound cues, naming the facility and eliciting repetition as necessary.

Repeat the above steps when orienting to location of the facility.

- (4) DATE: Ask the person to state the date. If he/she is unable, then break down the request into:
  - Day of the week
  - Month
  - Exact Date
  - Year



If the person is unable to state correct answers, then provide orientation information. A blank “wipe off” calendar is provided in the kit. After numbering the boxes on the calendar according to the current month, ask the person, if possible, to check off the days that have passed. This reinforces orientation to date. Then, ask the person to state the date. At the end of the sessions allow the person to utilize previous cues to state orientation to date.

### 3. RECEPTIVE SKILLS:

The following activities are suggested for stimulation of receptive skills. While the steps in each activity are presented in a hierarchical manner, the sequence for presenting the activities may vary depending on the person’s skills.

#### a. RECOGNITION:

When a volitional motor response is attained and the person is able to follow the simple one step command - “Point to \_\_\_\_\_,” then baseline cognitive abilities can be established via recognition of colors, shapes, common objects, body parts and functional pictures. The following items for recognition tasks are provided in the kit:

- Colors
- Shapes: blocks, balls
- Familiar common objects: comb, toothbrush, spoon, ball
- Body part cards
- Picture communication board (functional pictures)

Simultaneously, present two of each of the above items (i.e., 2 colors) and ask the person to point to one particular stimulus item. When the person is accurate in his recognition skills at this level, then increase the number of stimulus items (i.e., 4 colors) and note the person’s ability to scan and select.

#### b. YES/NO RESPONSES AND ANSWERING QUESTIONS:

During all sensory stimulation activities, the clinician should look for yes/no responses (either verbal or non-verbal). Typical responses are:

- Eye blinks (i.e., one blink for “no” and two blinks for “yes”)
- Head nods and shakes
- Digit movement (i.e., thumb up/down)
- Eyebrows raised/lowered
- Pointing to yes/no words or symbols
- Verbal yes/no responses

When yes/no responses are elicited, the clinician then needs to determine a reliable yes/no response pattern.

##### (1) RECOGNITION:

To elicit a yes/no response via recognition tasks, present the common objects in the kit (comb, toothbrush, spoon, ball) or the pictures on the provided communication board. Hold up one stimulus item (i.e., a comb) and ask the person to answer with a yes/no response:

- “Is this a fork?”                      No
- “Is this a comb?”                      Yes

##### (2) PERSONALLY RELEVANT CLOSED ENDED QUESTIONS:

Ask the person to respond with a yes/no to personally relevant closed ended questions for which the answers can be confirmed:

- “Is your name \_\_\_\_\_?”
- “Is your birthday \_\_\_\_\_?”
- “Are you a man/woman?”
- “Is your arm raised?”

To establish consistent reliability of yes/no responses the person needs to be retested on a regular basis using similar questions.



### **(3) SIMPLE NEUTRAL CONTENT QUESTIONS:**

When the person is able to reliably answer personally relevant yes/no questions, then progress to asking the person simple neutral content questions requiring yes/no responses:

- “Does a bird fly?”
- “Is salt sweet?”

### **(4) HIERARCHY FOR ASKING QUESTIONS:**

As yes/no reliability improves, the clinician may progress to asking more complex questions. To facilitate increased responses:

(i) Ask an open-ended question to promote a spontaneous response:

- “What do you want to wear?”

(ii) If the person has difficulty in generating a response (verbally, non-verbally, graphically), then ask a multiple choice question. The person is then provided with the response stimulus for repetition:

- “Do you want to wear your pajamas or your nightdress?”

(iii) If the person is still unable to respond then ask simple yes/no questions to elicit a response.

- “Do you want your pajamas?”      yes      no
- “Do you want your nightdress?”      yes      no

In the absence of verbal responses, present person with cards on which clearly written choices of responses are provided. Facilitate responding via pointing to graphic stimuli.

### **c. FOLLOWING COMMANDS:**

Throughout sensory stimulation activities, the person should be asked to follow simple commands, even when maximum assistance is required. For example, when providing “hands on” treatment requiring arm raising, give the command “Raise your arm.” If the person is unable to follow this command, then raise the arm for the person. As cognitive functioning improves, it is necessary to determine the person’s ability to recognize body parts and to discriminate between left and right, as these factors may impact on the person’s accuracy when following commands involving parts of the body.

If persons are unable to spontaneously follow commands, provide modeling and elicit the person’s imitation of the modeled command.

When the person is able to follow simple one step commands, i.e.,

“Point to the door.”

and when recognition skills have been determined, then directives may be increased in complexity and length, i.e.,

“Point to your left ear.”

“Point to the ceiling and then to your left ear.”

The common objects and wooden shapes provided in the kit may be used when assessing the person’s ability to follow commands:

“Pick up the red block.”

“Pick up the comb and give it to me.”

## **4. EXPRESSIVE SKILLS:**

### **a. AUGMENTATIVE COMMUNICATION AIDS:**

If the person does not spontaneously verbalize his wants, needs and feelings then the use of augmentative communication aids may be considered.

Once reasonable reliability is established for object/picture/letter recognition and pointing skills are consistent, then the use of a picture communication board and/or an alphabet board (both of which are included in this kit) may be explored to facilitate expression of basic needs.

(1) Place the picture communication board in front of the person and ask him to point to a specific picture:

“Point to the picture of a drink.”

“When you are thirsty, which picture do you point to?”

- (2) Using the alphabet board ask the person to identify individual letters of the alphabet. If success is attained in this, then ask the person to spell his name by pointing to the appropriate letters on the board. If spelling is reasonably accurate, then progress to asking the person more complex questions and establish his effectiveness in using the alphabet board for communicating basic ideas.
- (3) A word board may also be used to convey basic needs or feelings if the person demonstrates skill in reading comprehension at the single word level or at the simple phrase/sentence level. The person's reading abilities may be assessed by:
- Asking the person to select his name from a choice of 3 names
  - Matching written words with common objects (providing the person has reliable object recognition)
  - Asking the person to complete simple phrases when given written multiple choice answers:
 

Mother and _____	(father) (tree)
Open the _____	(shovel) (door)
A cat _____	(dances) (meows)
- (4) As a supplement to, or replacement for, impaired verbal communication, use of graphic output may be explored. Ask the person to write individual letters and then to write his name. If the person evidences success in this, then progress to asking the person to:
- Copy words/phrases/sentences
  - Write to dictation
  - Construct a sentence using a given word
  - Write a brief message

**b. ELICITING VERBAL RESPONSES:**

- (1) If the person is not spontaneously verbalizing:  
Ask the person to perform gross oral motor movements as a precursor to mouthing words:  
Ask the person to:
- Open mouth
  - Purse lips (pucker)
  - Smile
  - Stick out tongue
  - Lateralize tongue
- If the person is unable to spontaneously perform oral motor movements, then provide modeling and ask the person to imitate clinician movements. Use of a mirror may facilitate oral motor movement by providing visual reinforcement. Practice mouthing words in readiness for phonation.
- (2) When the person is phonating (making sounds) but not verbalizing (saying words):
- Provide modeling to elicit repetition of single phonemes:
 

M	P	R	L	are the most "visible" sounds and are recommended for primary targeting
---	---	---	---	---
  - As repetition of single phonemes becomes consistent, increase repetitions to consonant-vowel (CV) combinations:
 

MA	MO	MI	MU
----	----	----	----
  - Extend repetitions to consonant-vowel-consonant (CVC) combinations:
 

MAM	MOIL	MIP	MUB
-----	------	-----	-----
  - Progress to repetitions to single syllable words:
 

MAP	MOM	MIME	MUM
-----	-----	------	-----
  - Then to short phrases and sentences

(3) When the person is verbalizing:

To facilitate generalization of words into spontaneous speech, provide automatic speech tasks as follows:

- Opposites:  
“up and \_\_\_\_\_”  
“left and \_\_\_\_\_”
- Phrase completions:  
“a cup of \_\_\_\_\_”  
“ a slice of \_\_\_\_\_”
- Lead-in sentences:  
“you brush your teeth with a \_\_\_\_\_”  
“you shave with a \_\_\_\_\_”

**c. NAMING:**

- Present a common object (comb, toothbrush, spoon, ball) to the person and ask him to name it (either verbally or using graphic output)
- If the person is unable to name the object, provide a phonetic cue:  
“This is a c\_\_\_\_\_.”  
“This object starts with a “k” sound.”
- If the person does not name the object using the sound cue, then provide the object name “comb.” Ask the person to repeat the object name several times.
- Provide a lead-in phrase to stimulate more than word repetition:  
“You tidy your hair with a \_\_\_\_\_.”
- Then ask a functional question to facilitate generalization:  
“What do you tidy your hair with?”

When the person is able to follow some simple one or two step verbal commands and is able to communicate some basic needs (verbally or non-verbally), then therapeutic intervention may proceed beyond sensory stimulation to work on higher level cognitive tasks.

## VII. STIMULUS/RESPONSE RECORD SHEET

The progress of the target populations for this kit may be slow and inconsistent. Therefore, acute observation and accurate, specific documentation is critical in monitoring discrete responses and changes.

The stimulus/response sheet is designed for use by anyone who presents stimulation to the person (team members including therapist, family members, direct care staff). It is in this way that responses can be

documented throughout the day in addition to “therapy time” and one can better determine if generalization of responses (across time and varying environments) is occurring.

The presenter of stimuli is required to note the type, duration and frequency of stimulus item/activity used. Presenter should then document the type and consistency of response elicited (SEE SAMPLE FORM). It is important that anyone providing stimulation by modalities and activities contained within this kit and collecting data should first be inserviced by the professional staff person responsible for the program.

Use of this form monitors the type of stimulation provided by each presenter and the responses elicited. This approach will help to reduce overstimulation, increase accuracy of documentation and prevent over redundancy of the modalities chosen.

## STIMULUS/RESPONSE SHEET

PERSON'S NAME: \_\_\_\_\_

DATE	TIME	STIMULATION ACTIVITY	SPECIFIC STIMULUS/ ACTIVITY	SENSES STIMULATED TARGETED	TYPE OF RESPONSES ELICITED	CONSISTENT VOLITIONAL RESPONSE YES/NO AND #	PRESENTED BY

## EXAMPLE: STIMULUS/RESPONSE SHEET

PERSON'S NAME: John Doe

DATE	TIME	STIMULATION ACTIVITY	SPECIFIC STIMULUS/ACTIVITY	SENSES STIMULATED TARGETED	TYPE OF RESPONSES ELICITED	CONSISTENT VOLITIONAL RESPONSE YES/NO AND #	PRESENTED BY
1/1/91	10 a.m.	placed lemon swab on pt's tongue	lemon swab	gustatory auditory	drooling, swal- low tongue pumping	yes, 3/4 times	Ms. Smith, RN
1/2/91	3 p.m.	called pt by name	voice	auditory	eyes turned toward sound	2/3 times	Mother
	3:15 p.m.	touched/held phone	touch	tactile	none	no	Mother

## **VIII. BASELINE SENSORIMOTOR ASSESSMENT**

### **ASSESSMENT PROCEDURES**

#### **OBSERVATION BASELINE/RETEST PHASE**

This part of the assessment should take place in an environment which is comfortable and familiar to the person being assessed. The therapist only acts as an observer/recorder during a daily activity that is either occurring to or around the individual being assessed.

Activities that might be observed during this phase include: a visit from staff or significant others; during aide's time when carrying out duties related to the person; during a meal/feeding time (if appropriate), etc.

Assessment is based on a five point scale where scores indicate levels of arousal and adaptive responses to external stimuli. These scores can assist the therapist in giving quantitative measures of progress for documentation and further treatment plans.

During the retest phase, the therapist should duplicate the types of stimulation used for more consistent and meaningful data.

#### **STIMULATION BASELINE/RETEST PHASE**

During this phase, 3 activities/modalities should be used under each sensory section. Each stimulus should be presented 3 times, with response noted each time. Ample time between presentations should be given to prevent sensory overload/ accommodation effects. Therefore, 9 items should be circled under each sensory section. Get the average response for each sensory section by adding the value of the number responses and dividing by 9. Repeat this procedure under each sensory section. When the assessment is completed, these averaged scores can be added together and then divided by 7 or the number of sensory sections tested (some sensory sections may not be indicated for certain people due to precautions, etc.) to give an overall baseline score which can be used as a general indicator of improvement when retest is given.

## BASESLINE SENSORIMOTOR ASSESSMENT

KEY: (circle one):

1 = asleep/never

2 = sometimes (25%)

3 = 50%

4 = most of the time (+75%)

5 = fully alert/always

NAME:

DIAGNOSIS, INCLUDING ANY PERTINENT LEVELS/STAGES:

ADDRESS:

THERAPIST:

LOCATION WHERE OBSERVED/ADMINISTERED:

OBSERVATION BASELINE/RETEST PHASE (CIRCLE ONE)

DATE OBSERVED: \_\_\_\_\_

TIME OBSERVED: \_\_\_\_\_

DESCRIBE ANY PRECEDING DAILY ACTIVITY AND WHEN IT OCCURRED:

DESCRIBE CURRENT DAILY ACTIVITY:

AROUSAL LEVEL AT START OF OBSERVATION	1	2	3	4	5
ORIENTS TOWARD EXTERNAL STIMULI	1	2	3	4	5
ABILITY TO MAINTAIN ATTENTION TO MEANINGFUL/NOVEL STIMULI	1	2	3	4	5
ABILITY TO RELEASE ATTENTION FROM EXTERNAL STIMULI	1	2	3	4	5
ABILITY TO SELECTIVELY ATTEND TO A STIMULUS	1	2	3	4	5
ABILITY TO RESPOND APPROPRIATELY TO A STIMULUS	1	2	3	4	5
ABILITY TO COMPLY WITH A REQUEST	1	2	3	4	5





# TREATMENT PLAN

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## LONG TERM GOALS

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

## SHORT TERM GOAL

TOWARD WHAT LTG(S)

- |          |           |
|----------|-----------|
| 1. _____ | ( _____ ) |
| 2. _____ | ( _____ ) |
| 3. _____ | ( _____ ) |
| 4. _____ | ( _____ ) |
| 5. _____ | ( _____ ) |

## REASSESSMENT PLANS

THIS PLAN SHOULD BE CARRIED OUT AT LEAST \_\_\_\_\_ X/DAY BY ANY OF THE FOLLOWING PEOPLE WHO HAVE BEEN INSERVICED ON IMPLEMENTATION AND DATA COLLECTION BY THERAPIST RESPONSIBLE FOR PLAN

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

PLEASE NOTE THE FOLLOWING PRECAUTIONS:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

OTHER COMMENTS/INSTRUCTIONS:

\_\_\_\_\_  
\_\_\_\_\_

## STIMULATION BASELINE/RETEST PHASE

KEY: (circle one):

1 = asleep/never

2 = sometimes (25%)

3 = 50%

4 = most of the time (+75%)

5 = fully alert/always

NAME: \_\_\_\_\_

DATE OBSERVED: \_\_\_\_\_

TIME OBSERVED: \_\_\_\_\_

Arousal Level At Beginning Of Stimulation:

1 2 3 4 5

### AUDITORY

TYPE OF STIMULATION USED (USE EACH STIMULUS 3X)

RESPONSE

1. \_\_\_\_\_

1 2 3 4 5

2. \_\_\_\_\_

1 2 3 4 5

3. \_\_\_\_\_

1 2 3 4 5

DESCRIBE RESPONSES:

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

TYPE OF STIMULATION USED

RESPONSE

1. \_\_\_\_\_

1 2 3 4 5

2. \_\_\_\_\_

1 2 3 4 5

3. \_\_\_\_\_

1 2 3 4 5

DESCRIBE RESPONSES:

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

TYPE OF STIMULATION USED

RESPONSE

1. \_\_\_\_\_

1 2 3 4 5

2. \_\_\_\_\_

1 2 3 4 5

3. \_\_\_\_\_

1 2 3 4 5

DESCRIBE RESPONSES:

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**CURRENT AROUSAL LEVEL:**

1 2 3 4 5

**AVERAGE RESPONSE LEVEL:**

1 2 3 4 5

**VISUAL**

**TYPE OF STIMULATION USED (USE EACH STIMULUS 3X)**

**RESPONSE**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

**RESPONSE**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

**RESPONSE**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**CURRENT AROUSAL LEVEL:**

- 1 2 3 4 5

**AVERAGE RESPONSE LEVEL:**

- 1 2 3 4 5

**OLFACTORY**

**TYPE OF STIMULATION USED (USE EACH STIMULUS 3X)**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

**RESPONSE**

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

**RESPONSE**

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

**RESPONSE**

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**CURRENT AROUSAL LEVEL:**

- 1 2 3 4 5

**AVERAGE RESPONSE LEVEL:**

- 1 2 3 4 5

**GUSTATORY**

**TYPE OF STIMULATION USED (USE EACH STIMULUS 3X)**

**RESPONSE**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

**RESPONSE**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

**RESPONSE**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**CURRENT AROUSAL LEVEL:**

- 1 2 3 4 5

**AVERAGE RESPONSE LEVEL:**

- 1 2 3 4 5

**TACTILE**

**TYPE OF STIMULATION USED (USE EACH STIMULUS 3X)**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

**RESPONSE**

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

**RESPONSE**

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

**RESPONSE**

- 1 2 3 4 5
- 1 2 3 4 5
- 1 2 3 4 5

**DESCRIBE RESPONSES:**

- 1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

- 3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**CURRENT AROUSAL LEVEL:**

- 1 2 3 4 5

**AVERAGE RESPONSE LEVEL:**

- 1 2 3 4 5

**COGNITIVE**

**TYPE OF STIMULATION USED (USE EACH STIMULUS 3X)**

**RESPONSE**

1. \_\_\_\_\_

1 2 3 4 5

2. \_\_\_\_\_

1 2 3 4 5

3. \_\_\_\_\_

1 2 3 4 5

**DESCRIBE RESPONSES:**

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

**RESPONSE**

1. \_\_\_\_\_

1 2 3 4 5

2. \_\_\_\_\_

1 2 3 4 5

3. \_\_\_\_\_

1 2 3 4 5

**DESCRIBE RESPONSES:**

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

**RESPONSE**

1. \_\_\_\_\_

1 2 3 4 5

2. \_\_\_\_\_

1 2 3 4 5

3. \_\_\_\_\_

1 2 3 4 5

**DESCRIBE RESPONSES:**

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**CURRENT AROUSAL LEVEL:**

1 2 3 4 5

**AVERAGE RESPONSE LEVEL:**

1 2 3 4 5

**MOVEMENT****TYPE OF STIMULATION USED (USE EACH STIMULUS 3X)**

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

**RESPONSE**

1 2 3 4 5  
 1 2 3 4 5  
 1 2 3 4 5

**DESCRIBE RESPONSES:**

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

**RESPONSE**

1 2 3 4 5  
 1 2 3 4 5  
 1 2 3 4 5

**DESCRIBE RESPONSES:**

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**TYPE OF STIMULATION USED**

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

**RESPONSE**

1 2 3 4 5  
 1 2 3 4 5  
 1 2 3 4 5

**DESCRIBE RESPONSES:**

1. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

2. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

3. \_\_\_\_\_

Was This Response Adaptive/Appropriate

Yes \_\_\_\_\_ No \_\_\_\_\_

**CURRENT AROUSAL LEVEL:**

1 2 3 4 5

**AVERAGE RESPONSE LEVEL:**

1 2 3 4 5

**TOTAL SCORE** (Add average values of all stimuli used): \_\_\_\_\_

**AVERAGE RESPONSE LEVEL THROUGHOUT**

1 2 3 4 5





## IX. SOURCES/REFERENCES

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