

# Checklist of Learning Environment Characteristics

Targeted behavior state observed \_\_\_\_\_ Student \_\_\_\_\_

EXTERNAL					
<b>TACTILE</b>					
<input type="checkbox"/> N/A					
<b>PRESSURE</b>	<b>DURATION</b>	<b>TEMPERATURE</b>		<b>TEXTURE</b>	
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> Neutral	<input type="checkbox"/> N/A	<input type="checkbox"/> Smooth
<input type="checkbox"/> Light	<input type="checkbox"/> Brief	<input type="checkbox"/> Cold	<input type="checkbox"/> Hot	<input type="checkbox"/> Soft	<input type="checkbox"/> Hard
<input type="checkbox"/> Deep	<input type="checkbox"/> Lingering			<input type="checkbox"/> Rough	
<b>VISUAL</b>					
<input type="checkbox"/> N/A					
<b>BRIGHTNESS</b>	<b>SECONDARY LIGHT</b>		<b>COLOR</b>	<b>CONTRAST</b>	
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	<input type="checkbox"/> Blue	<input type="checkbox"/> N/A
<input type="checkbox"/> Shiny	Proximity:	Intensity:	<input type="checkbox"/> Light	<input type="checkbox"/> Purple	<input type="checkbox"/> High
<input type="checkbox"/> Dull	<input type="checkbox"/> Direct	<input type="checkbox"/> High	<input type="checkbox"/> Neutral	<input type="checkbox"/> Green	<input type="checkbox"/> Low
	<input type="checkbox"/> Indirect	<input type="checkbox"/> Medium	<input type="checkbox"/> Dark	<input type="checkbox"/> Yellow	
		<input type="checkbox"/> Low	<input type="checkbox"/> Red	<input type="checkbox"/> Orange	
<b>AUDITORY</b>					
<input type="checkbox"/> N/A					
<b>PITCH</b>	<b>INTENSITY</b>	<b>TIMBRE</b>	<b>TEMPO</b>	<b>RHYTHM</b>	<b>SOURCE</b>
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<input type="checkbox"/> High	<input type="checkbox"/> Loud	<input type="checkbox"/> Sharp	<input type="checkbox"/> Fast	<input type="checkbox"/> Continuous	<input type="checkbox"/> Vocal
<input type="checkbox"/> Low	<input type="checkbox"/> Soft	<input type="checkbox"/> Muted	<input type="checkbox"/> Slow	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Mechanical
					<input type="checkbox"/> Other
<b>SMELL</b>			<b>TASTE</b>		
<input type="checkbox"/> N/A			<input type="checkbox"/> N/A		
<input type="checkbox"/> Foul	<input type="checkbox"/> Floral	<input type="checkbox"/> Resinous	<input type="checkbox"/> Salty	<input type="checkbox"/> Sour	
<input type="checkbox"/> Fruity	<input type="checkbox"/> Burnt	<input type="checkbox"/> Spicy	<input type="checkbox"/> Spicy	<input type="checkbox"/> Sweet	
MOTOR					
<b>MOVEMENT</b>					
<input type="checkbox"/> N/A					
<b>TEMPO</b>	<b>REGULARITY</b>	<b>DIRECTION</b>	<b>BODY COMPONENT</b>		<b>STONE</b>
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> Head	<input type="checkbox"/> N/A
<input type="checkbox"/> Slow	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Up-and-down	<input type="checkbox"/> Full body	<input type="checkbox"/> Upper limb(s)	<input type="checkbox"/> High
<input type="checkbox"/> Fast	<input type="checkbox"/> Continuous	<input type="checkbox"/> Side-to-side	<input type="checkbox"/> Trunk	<input type="checkbox"/> Lower limb(s)	<input type="checkbox"/> Normal
		<input type="checkbox"/> Back-and-forth			<input type="checkbox"/> Low
		<input type="checkbox"/> Circular			
<b>ORIENTATION</b>					
<input type="checkbox"/> N/A					
<b>POSITION</b>	<input type="checkbox"/> Standing	<b>Sidelying:</b>		<b>TILT</b>	<b>EQUIPMENT</b>
<input type="checkbox"/> N/A	<input type="checkbox"/> Prone	<input type="checkbox"/> Right		<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<input type="checkbox"/> Sitting	<input type="checkbox"/> Supine	<input type="checkbox"/> Left		<input type="checkbox"/> Upright	<input type="checkbox"/> Wheelchair
				<input type="checkbox"/> Backward	<input type="checkbox"/> Adaptive Equip.
				<input type="checkbox"/> Forward	Specify _____
					<input type="checkbox"/> Other person
					<input type="checkbox"/> Other _____
LEARNING ATMOSPHERE					
<b>PHYSICAL ATMOSPHERE</b>					
<input type="checkbox"/> N/A					
<b>TEMPERATURE</b>	<b>LIGHTING</b>	<b>AROMA</b>	<b>NOISE</b>	<b>SETTING CHANGE</b>	
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> Outside
<input type="checkbox"/> Cold	<input type="checkbox"/> Bright	<input type="checkbox"/> Foul	<input type="checkbox"/> High	<input type="checkbox"/> Primary	<input type="checkbox"/> Across room
<input type="checkbox"/> Neutral	<input type="checkbox"/> Neutral	<input type="checkbox"/> Spicy	<input type="checkbox"/> Medium	<input type="checkbox"/> Secondary	<input type="checkbox"/> 5 ft
<input type="checkbox"/> Hot	<input type="checkbox"/> Dim	<input type="checkbox"/> Floral	<input type="checkbox"/> Low	<input type="checkbox"/> Community	<input type="checkbox"/> 10 ft
		<input type="checkbox"/> Burnt			
		<input type="checkbox"/> Resinous			
		<input type="checkbox"/> Fruity			
<b>SOCIAL ATMOSPHERE</b>					
<input type="checkbox"/> N/A					
<b>PEOPLE IN ENVIRONMENT</b>		<b>DIRECT INTERACTIONS</b>		<b>ACTIVITY LEVEL</b>	
<input type="checkbox"/> N/A		<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
___ Peers with disabilities (record number)		<input type="checkbox"/> Peers with disabilities		<input type="checkbox"/> Fast	
___ Nonhandicapped peers		<input type="checkbox"/> Nonhandicapped peers		<input type="checkbox"/> Neutral	
___ Staff		<input type="checkbox"/> Staff		<input type="checkbox"/> Slow	

# Assessment of Learning Environment Characteristics

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The *Checklist of Learning Environment Characteristics* (pages 5.7-5.8) divides learning environment variables into three broad stimulus classifications: external, motor, and learning atmosphere. In the external section, one examines the sensory stimulation that might directly affect the student. Motor characteristics concern the bodily movement and orientation of the student. While similar to the external section, the learning atmosphere section examines the *overall* learning environment, not just stimuli that might directly affect the student. Questions following the checklist are designed to assist in the analysis of how the characteristics of the learning environment elicit or reinforce certain behavior states in the student. Examples of activating and soothing techniques for each of the three stimulus classifications are provided at the end of this section (see Table 1).

At least three one-minute observations are required for *each* targeted behavior state. Once these have been completed, comparisons can be made between the checklists to identify characteristics that are present for one state, but not another. For example, comparison of the checklists could reveal that A<sup>2</sup> behavior occurred when there was direct lighting, or the student was using materials that were highly reflective in nature. The A/S state, however, occurred when there was low, indirect lighting, with either no materials or non-reflective materials present. In this manner, the checklists will provide the framework to systematically identify characteristics in the environment to add, remove, or alter, to provide the unique atmosphere most likely associated with the maintenance of a student's preferred awake states.

USE THE FOLLOWING PROCEDURES TO COLLECT DATA:

**1. Review the *Checklist of Learning Environment Characteristics* definitions:**

There is no need to memorize the definitions as they are fairly self-explanatory. Consult with the provided definitions when in doubt.

**2. Observe student for one minute:**

When the student is in a behavior state targeted for increase or decrease, observe the student and his or her environment for *one minute*. Take note of all the categories on the checklist.

**3. Complete a *Checklist of Learning Environment Characteristics* :**

Record information in the appropriate areas and answer the general questions at the end. Be as thorough as possible. Question #6 examines the quality of interaction between the student or adult and any materials involved. For this question, check (✓) whether there was active or passive manipulation of the materials by an adult or peer and the student. For example, if an adult is applying lotion to a student, but is not attempting to include the student in the activity, check the "NA" box for the student, and the "Passive" box for the adult. The student is not manipulating the material (i.e., the lotion), and the adult is doing so only in a passive manner.

**4. Complete a *Learning Environment Characteristics Summary Analysis Form* (pages 5.9-5.10)**

Use the form provided to summarize information collected throughout the complete series of one-minute observations for the *Checklist of Learning Environment Characteristics*. Answer all questions to determine a student's preferences/non-preferences for characteristics of the learning environment.

# Definitions of Learning Environment Characteristics

## EXTERNAL

### TACTILE

Pertaining to the sense of touch

**Pressure** — the amount of force being placed on the skin by people or objects

- light - pressure just barely skims the skin's surface, may result in displacement of body hair, but no visible displacement of skin
- deep - touch results in displacement of skin

**Duration** — the rate of motion, action, activity, or performance

- brief/staccato - movement is fast (typically lasting less than 1 second) and is repeated several times—may appear jerky in movement
- lingering/slow - movement is rhythmic and will occur over a period of time longer than 1 second

**Temperature** — determination of temperature is largely dependent upon the materials being utilized (For example, 82-84 degrees is an average or warm temperature for an indoor swimming pool, while 82-84 degrees for a beverage would be considered hot.)

- cold/neutral/hot

**Texture** — the composition or structure of a substance

- soft - not hard or firm, offering little resistance to touch, not harsh
- rough - having a bumpy, irregular surface, coarse, not polished
- smooth/slick - fine texture or consistency, free from irregularities, roughness, or projections—glossy, slippery, polished
- hard - resistant to pressure, firm, rigid, fixed

### VISUAL

Pertaining to the sense of sight

**Brightness** - intensity of light reflected from a surface

- shiny - high reflective ability
- dull - low reflective ability

**Secondary Light** (proximity and intensity)

- direct - secondary light source is within a two foot radius of student
- indirect - there is a secondary light source, but it is greater than two feet from the student
- high/medium/low

**Color** (intensity and actual color)- property of object or light that is visibly distinguished as possessing the quality of redness, greenness, etc.

- light/neutral/dark
- red/green/blue/yellow/purple/orange

**Contrast** - differences in light intensity from two or more areas

- high/low



## AUDITORY

The reception of sound waves

Pitch - frequency of the signal

- high tone (i.e., soprano)
- low tone (i.e., baritone)

Intensity - loudness or magnitude of the sound

- loud - high volume
- soft - low volume

Timbre - quality characteristic of sound, attribute of sensation

- sharp - intense and harsh tone
- muted - muffled or softened tone

Tempo - a characteristic, rhythm or speed of a sound

- fast - rhythm is rapid
- slow - rhythm is low speed
- continuous - a sound with no breaks or interruptions
- intermittent - a periodically interrupted sound

Source - the origination of a sound

- voice - a sound produced by the vocal cords of an actual person
- mechanical - a sound produced by a radio, computer, toy, or other device
- other - other possible items (musical instruments)

## SMELL

To notice the odor of something by the sense organs in the nose

- foul - putrid, repulsive, nauseous
- fruity - cherry, berry, grape
- floral - rose, lilac, honeysuckle
- burnt - smoke, tar
- resinous - pine, camphor, spruce
- spicy - clove, cinnamon, pepper

## TASTE

To distinguish the flavor of something by taking it into the mouth

- salty - tasting like salt
- spicy - having a hot taste - pepper, relish, nutmeg
- sour - taste characteristic of that produced by acid, tart, tangy foods
- sweet - having a sugary taste

## MOTOR

### MOVEMENT

A change in position or motion

Tempo - rate or pace of an activity

- slow - rate is lacking, below or behind
- fast - rate is occurring rapidly with great speed
- intermittent - sporadic, not continuous
- continuous/rhythmic - movement characterized by a regularly recurring element, without interruption

Direction - in what direction the movement is occurring

- up-and-down - including jumping, being bounced slowly or rapidly, or a vertical movement on a waterbed
- side-to-side - includes rocking (if sideways such as holding an infant), walking or running sideways, rolling if the circle is not complete, and sideways motion on a waterbed
- back-and-forth - includes front to back rocking such as in a rocking chair, or while seated or standing
- circular - includes movements which complete a circle such as rolling, spinning with or without an object (chair, merry-go-round)

Body Component - that part of the body that is moving or being moved

- full body - include the total body from head to toe and including extremities
- trunk - area of the body from hips to neck
- head - area of the body from the neck up
- upper limb(s) - arms (from shoulder to fingertips)
- lower limb(s) - legs

Tone - the coloring of the skin and the appearance of muscle strength

- high/normal/low

**ORIENTATION** The physical relationship of the student's body to his/her environment

Position - the way in which the student is placed

- sitting - the student's body is bent at the waist at an angle of at least 45-degrees from a horizontal surface
- standing - the student is in an upright position that is at least at a 75-degree angle with a horizontal surface and a portion of his/her weight is borne on legs and feet (ankle joints). (If student is placed in a prone stander, he/she is coded as standing when the prone stander is elevated to at least a 75 degree angle, and it appears that more of the student's weight is being supported by his/her legs than by the torso).
- prone - the student is on his/her stomach with the torso making contact with a horizontal surface
- supine - the student is on his/her back with the torso making contact with a horizontal surface or his/her body can be bent at the waist at less than a 45-degree angle from a horizontal surface
- sidelying - the student is on his/her side. (The back can be making contact with a horizontal surface, but the pelvis is rotated with the side of the hip resting on the horizontal surface).

Tilt - the angle of the body or a part of the body

- upright - the student is at a 90-degree angle to a horizontal surface
- backward - the student's shoulder blades are at an angle greater than 90-degrees and less than 175-degrees
- forward - the student's shoulder blades are at an angle greater than 1 degree and less than 90-degrees

Equipment

- |              |                                |
|--------------|--------------------------------|
| Wheelchair   | Prone stander                  |
| Bean bag     | Kneeler                        |
| Tumbleform   | Other person (i.e. being held) |
| Corner chair | Other                          |

## LEARNING ATMOSPHERE

### PHYSICAL

#### Temperature

- cold - the temperature is below 68 degrees
- neutral - the temperature is 68-79 degrees
- hot - the temperature is above 80 degrees

#### Lighting

- bright - bright sunlight is evident, or intense direct illumination is present
- neutral - normal overhead lighting is evident
- dim - no overhead lighting or primary source of light

#### Aroma - refer to the above definitions in the External section under the Smell category

foul	burnt
spicy	resinous
floral	fruity

#### Noise

- high - background ambient noise is above 80dB; includes loud talking, crying or yelling, machine noise, or loud music
- medium - typical noise level in a classroom; background noise is between 30-80 dB; voices are at normal speaking level, or soft music is present
- low - no one is talking and there is no noticeable background noise

#### Setting Change\*

- primary - the place where the student spends the majority of his/her time during a typical educational day
- secondary - any indoor space other than the student's classroom area (e.g., hallway, other classrooms, cafeteria) within the same building in which the primary space is located
- community - any indoor space that is not part of the student's primary school building, residence, or training facility; includes a bus or car, restaurants, malls, or recreational facilities
- outside - any area outside of a building

\*If a setting change occurs within any of these areas, indicate approximately how far the distance is.

across room	5 feet	10 feet
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### SOCIAL

People in the environment - record the number of individuals in the student's environment

peers with disabilities	nonhandicapped peers	staff
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Direct Interactions - record any interactions that occur directly with the student being coded, and who those individuals are

peers with disabilities	nonhandicapped peers	staff
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Activity level - record the pace at which activities surrounding the student are occurring

fast	neutral	slow
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# Facilitative Techniques - Table 1

## EXTERNAL FACILITATIVE TECHNIQUES

STRATEGY TYPE	ACTIVATING TECHNIQUES		SOOTHING TECHNIQUES		
	Characteristics of Stimuli	Examples of Stimuli Used	Characteristics of Stimuli	Examples of Stimuli	
TACTILE	<b>light, quick touches</b>	skin freshener	<b>deep, lingering touches</b>	warm lotion	
	<b>cool temperatures</b>	cool water shaving cream removing items from refrigerator		<b>warm temperatures</b>	a blow dryer with a diffuser during grooming sheep skin lined bean bag for positioning
	<b>rough surfaces</b>	sand		<b>soft textures</b>	newly laundered blanket
VISUAL	<b>bright-reflective</b>	gold or silver jewelry	<b>dull (non-reflective)</b>	light pink nail polish	
	<b>light</b>	bright make-up (red or hot pink) extra light shined into a mirror		<b>dark</b>	shades of gray
AUDITORY	<b>high pitch</b>	a hand mixer fast streams of water	<b>low pitch</b>	bass guitar	
	<b>loud</b>	high tone of instruction with quick delivery		<b>soft</b>	low tone of instruction with slow delivery
	<b>sharp</b>	crashing of pots and pans		<b>muted</b>	muffled conversation
SMELL	<b>foul</b>	bowel movement	<b>floral</b>	perfume	
	<b>burnt</b>	coffee		<b>fruity</b>	vanilla-scented candle
	<b>resinous</b>	pine-scented cleaner			
	<b>spicy</b>	cinnamon			
TASTE	<b>salty</b>	lemon water	<b>sweet</b>	warm pudding	
	<b>spicy</b>	pepper		kool-aid	
	<b>sour</b>	lemon		children's toothpaste	
		dill pickle			



## Facilitative Techniques - Table 1 (continued)

### MOTOR FACILITATIVE TECHNIQUES

STRATEGY TYPE	ACTIVATING TECHNIQUES		SOOTHING TECHNIQUES	
	Characteristics of Stimuli	Examples of Stimuli Used	Characteristics of Stimuli	Examples of Stimuli
MOVEMENT	quick tempo	swing	slow tempo	brushing hair with slow side-side motion
	Intermittent tempo	carnival rides		
	frequent position changes	jostling on another's lap	rhythmic tempo	movement of a water bed
		approximations of skating or tumbling	continuous tempo	merry-go-round
		back-and-forth	rocking chair	
ORIENTATION	upright position		supine, prone & sidelying position	
	firmly supported head and trunk		upright position with slight backward tilt	

### LEARNING ATMOSPHERE FACILITATIVE TECHNIQUES

STRATEGY TYPE	ACTIVATING TECHNIQUES		SOOTHING TECHNIQUES	
	Characteristics of Stimuli	Examples of Stimuli Used	Characteristics of Stimuli	Examples of Stimuli
PHYSICAL	cool room temperatures	computer lab walk-in freezer	warm room temperatures	sauna
	well lighted room		poorly-lighted room	
	frequent physical changes		dark, muted colors	
	frequent location changes		low background sound	
SOCIAL	auditorily active	group instruction	auditorily soothing	individual or small group instruction
	visually active; change in social interactions	community-based activities	visually soothing	