
Postgraduate Certificate in Visual Impairment and Occupational Therapy

Cognitive and Sensory Processing

Cognitive and Sensory Processing Glossary

Adaptation: The process of adjusting to sensory input or environmental changes to function effectively. Adaptation can involve modifying tasks, environments, or equipment to meet the needs of individuals with visual impairments.

Auditory Processing: The ability to make sense of auditory information received through hearing. It involves recognizing, interpreting, and responding to sounds in the environment.

Braille: A system of raised dots representing letters, numbers, and punctuation that allows individuals with visual impairments to read through touch. Braille is commonly used for labeling, note-taking, and reading.

Cognition: The mental processes involved in acquiring, understanding, and using knowledge. Cognitive processes include attention, memory, problem-solving, and decision-making.

Cognitive Development: The growth and maturation of cognitive abilities such as perception, thinking, reasoning, and memory. Cognitive development is essential for learning and adapting to the environment.

Cognitive Processing: The mental activities involved in processing information from the environment. Cognitive processing includes perception, attention, memory, and problem-solving.

Cortical Visual Impairment (CVI): A condition in which there is damage to the visual processing areas of the brain, leading to difficulties in interpreting visual information. Individuals with CVI may have trouble recognizing objects, faces, or colors.

Delayed Visual Maturation: A condition in infants where the visual system takes longer to develop than usual. This can result in delayed visual responses and difficulties in processing visual information.

Depth Perception: The ability to perceive the relative distance of objects in the environment. Depth perception is important for tasks such as reaching for objects, navigating space, and understanding spatial relationships.

Environmental Adaptations: Modifications made to the physical environment to improve accessibility and usability for individuals with visual impairments. Environmental adaptations can include changes in lighting, color contrast, signage, and layout.

Functional Vision: The use of residual vision for everyday tasks and activities. Functional vision involves using available visual information to navigate the environment, recognize objects, and interact with others.

Glare: Excessive brightness or reflection of light that can cause discomfort or difficulty in seeing. Glare can be a significant challenge for individuals with visual impairments, especially those with light sensitivity.

Low Vision: A term used to describe a visual impairment that cannot be fully corrected with glasses, contact lenses, or surgery. Individuals with low vision may have reduced visual acuity, contrast sensitivity, or visual field.

Object Perception: The ability to recognize and interpret objects based on visual cues such as shape, size, color, and texture. Object perception is essential for tasks such as identifying items, distinguishing between objects, and understanding spatial relationships.

Ocular Motor Skills: The ability to control and coordinate eye movements for tasks such as tracking moving objects, focusing on near or distant objects, and shifting gaze between different points.

Orientation and Mobility (O&M): A set of skills and techniques used by individuals with visual impairments to navigate the environment safely and independently. Orientation refers to understanding one's position in space, while mobility involves moving through the environment.

Perceptual Skills: The ability to interpret and make sense of sensory information from the environment. Perceptual skills include visual processing, auditory processing, tactile discrimination, and spatial awareness.

Peripheral Vision: The ability to see objects located outside the central field of vision. Peripheral vision is important for detecting motion, monitoring the environment, and maintaining awareness of surroundings.

Refractive Error: A visual impairment caused by an irregular shape of the eye that affects the ability to focus light properly on the retina. Common types of refractive errors include nearsightedness, farsightedness, and astigmatism.

Retinopathy of Prematurity (ROP): A vision disorder that affects premature infants and is characterized by abnormal blood vessel growth in the retina. ROP can lead to visual impairments such as retinal detachment and vision loss.

Sensory Integration: The process of organizing and interpreting sensory information from the environment to produce appropriate responses. Sensory integration is important for coordinating sensory input, maintaining attention, and regulating emotions.

Sensory Processing: The ability to receive, interpret, and respond to sensory information from the environment. Sensory processing involves integrating sensory input from different modalities such as vision, hearing, touch, taste, and smell.

Spatial Awareness: The ability to understand one's position in space and the relationships between objects in the environment. Spatial awareness is important for tasks such as navigating, reaching for objects, and avoiding obstacles.

Visual Acuity: The clarity or sharpness of vision, typically measured by the ability to see details at a certain distance. Visual acuity is important for tasks such as reading, recognizing faces, and identifying objects.

Visual Field: The entire area that can be seen when the eyes are fixed in one position. The visual field includes central vision (focused straight ahead) and peripheral vision (located to the sides).

Visual Processing: The cognitive processes involved in interpreting visual information from the environment. Visual processing includes recognizing objects, interpreting shapes, colors, and patterns, and understanding spatial relationships.

Visual Rehabilitation: A process of developing compensatory strategies, adaptive techniques, and assistive devices to maximize the use of remaining vision. Visual rehabilitation aims to improve functional vision and enhance independence in daily activities.

Visual Spatial Skills: The ability to perceive and understand spatial relationships between objects in the environment. Visual spatial skills involve tasks such as judging distances, navigating space, and interpreting maps or diagrams.

Visual Tracking: The ability to smoothly and accurately follow moving objects with the eyes. Visual tracking is important for tasks such as reading, sports, and driving.

Visual Impairment: A condition in which there is a partial or total loss of vision that cannot be corrected with glasses, contact lenses, or surgery. Visual impairment can range from mild to severe and may affect central or peripheral vision.