



Psychology:

Lesson #12: April 7

Sensation & Perception Review

Learning Target: The student will review and explain the meaning of sensation and some associated concepts.

Warm Up

Review the senses on the chart below and the sensation associated with each.

Sense	Stimulus	Sense Organ	Receptor	Sensation
Sight	Light waves	Eye	Rods and cones of retina	Colors, patterns, textures, motion, depth in space
Hearing	Sound waves	Ear	Hair cells located in inner ear	Noises, tones
Skin sensations	External contact	Skin	Nerve endings in skin	Touch, pain, warmth, cold
Smell	Volatile substances	Nose	Hair cells of olfactory membrane	Odors (musky, flowery, burnt, minty)
Taste	Soluble substances	Tongue	Taste buds of tongue	Flavors (sweet, sour, salty, bitter)
Vestibular sense	Mechanical and gravitational forces	Inner ear	Hair cells of semicircular canals and vestibule	Spatial movement, gravitational pull
Kinesthesia	Body movement	Muscles, tendons,	Nerve fibers in muscles, tendons, and joints	Movement and position of body parts

Lesson Activity

Read the section here titled ‘What is Sensation?’ and answer the review questions that follow.

WHAT IS SENSATION?

The world is filled with physical changes—an alarm clock sounds; the flip of a switch fills a room with light; you stumble against a door; steam from a hot shower billows out into the bathroom, changing the temperature and clouding the mirror. Any aspect of or change in the environment to which an organism responds is called a *stimulus*. An alarm, an electric light, and an aching muscle are all stimuli for human beings.

A stimulus can be measured in many physical ways, including its size, duration, intensity, or wavelength. A **sensation** occurs anytime a stimulus activates one of your receptors. The sense organs detect physical changes in energy such as heat, light, sound, and physical pressure. The skin notes changes in heat and pressure, the eyes note changes in light, and the ears note changes in sound. Other sensory systems note the location and position of your body.

A sensation may be combined with other sensations and your past experience to yield a perception. A **perception** is the organization of sensory information into meaningful experiences (see Figure 8.1).

Psychologists are interested in the relationship between physical stimuli and sensory experiences. In vision, for example, the perception of color corresponds to the wavelength of the light, whereas brightness corresponds to the intensity of this stimulus.

What is the relationship between color and wavelength? How does changing a light's intensity affect your perception of its brightness? The psychological study of such questions is called **psychophysics**. The goal of psychophysics is to understand how stimuli from the world (such as frequency and intensity) affect the sensory experiences (such as pitch and loudness) produced by them.

THRESHOLD

In order to establish laws about how people sense the external world, psychologists first try to determine how much of a stimulus is necessary for a person to sense it at all. How much energy is required for someone to hear a sound or to see a light? How much of a scent must be in the room before one can smell it?

Spiral

A difference in perception. Our way of seeing that of a spiral, Trace a circle ways come low do we use together to



Lesson Activity

Click on the link here and watch the video on sensation and perception.

<https://www.youtube.com/watch?v=sP3ThMv8p4s&list=PLkKvotUGCyLdTabTWbX2b5ZVdHYaSW-73&index=1>

Introduction to Sensation and Perception (6:15)

Assignment

Write the following questions and answers on a sheet of paper titled: Lesson #12 April 7 - Sensation & Perception.

Check your work using the Answer Key found at the end of this lesson!

1. List the 5 major senses -
2. Name the 2 other senses referred to on the chart and explain the sensation received by these -
3. Define the term 'sensation' -
4. What is the process called where a stimulus is converted into neural activity?
5. Explain what happens when 'perception' occurs -
6. Explain how your perception changes with the Necker Cube example -

Reflection

Thinking Exercise:

Reflect on your specific sensory organ used in the following examples and how you perceive the following in different ways.

- Royal blue vs. Sky blue
- Cookies baking in the oven vs. Garlic bread
- Chocolate ice cream vs. Vanilla ice cream
- The surface of a wood or tile floor vs. carpet
- The voice of a parent/guardian vs. the voice of a friend

Additional Resources

Check out these links for more information on this topic

- Sensation and Perception: Crash Course Psychology #5 (10:45)
<https://www.youtube.com/watch?v=unWnZvXJH2o>
- Human Sense Organs/Learn About 5 Senses (6:22)
<https://www.youtube.com/watch?v=-2caC-ul7I4>

Answers

1. List the 5 major senses - sight, hearing, taste, smell, touch
2. Name the 2 other senses referred to on the chart and explain the sensation received by these - vestibular sense and kinesthesia
3. Define the term 'sensation' - Sensation occurs when a stimulus activates a sensory receptor.
4. What is the process called where a stimulus is converted into neural activity? transduction
5. Explain what happens when 'perception' occurs - Perception occurs when sensory information is organized into meaningful experiences by the brain.
6. Explain how your perception changes with the Necker Cube example - We are able to perceive the sensation of the cube as being from one perspective looking down at the cube extending to the right, or as looking up at the cube extending to the left.