**Sensation and Perception – PowerPoint Handout**

Without the senses, we would live in a void of darkness and silence. The next time you soak up the beauty of a sunset, a flower or friend, remember this: sensation makes it all possible.

Yet, sensing the world is not enough as sensory information can be interpreted in different ways.

Our perceptions create faces, melodies, works of art, illusions… out of the raw material of sensations.

* **Sensation**
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* **Perception**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Sensory signals: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Perception:** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Let’s take a look at the power of vision as one sensory example:**

**Vision** gives us amazingly wide access to the world. In one instant you can view a star light-years away, and in the next you can peer into a microscope to analyze a dew drop.

However, like other senses it narrows what we observe. It acts as a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

What we experience is also influenced by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**, which divides the world into important perceptual elements.

For vision, examples are lines, shapes, edges, spots, colours…reading the letters here is a direct result of sensory analysis.

In some instances the senses act as **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** to pick up very specific patterns.

Frogs eyes, for example, are especially sensitive to small, dark moving spots- i.e. bugs flying by. The insects must be moving though. A frog could starve to death surrounded by dead flies.

After information has been selected and analyzed, sensory systems must code it. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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Another interesting aspect of sensation is called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** – means that the type of sensation you experience depends on which area of the brain is activated.

Some brain areas receive visual information; others receive auditory or taste or touch. Knowing which brain areas are active tells us, in general, what kinds of sensations you are feeling.

You are surrounded by sights, sounds, odours, colours, tastes and touch sensations but, which ones are you aware of?

Each of these senses is active but many events never reach awareness due to the following:

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** – sensory receptors respond less to unchanging stimuli. I.e. adaption to pressure from a watch, or a ring and not noticing cooking smells after being in a house for sometime. Sensory receptors respond best to changes in stimuli as no one needs to be reminded 16 hours a day that their shoes are on.
2. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** – giving priority to a particular incoming sensory message.

As you are reading this slide, receptors for touch and pressure in the seat of your pants are sending nerve impulses to your brain. Although they have been present all along you are probably only now aware of them.

We are able to tune in to a single sensory message while excluding others as our brains have the ability to give some messages priority while putting others on hold.

**Perception**

It is fascinating to realize that seeing and hearing take place on the brain not on the eye or ears. Information arriving from the sense organs creates sensations.

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**The Process of Perception**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ Paying attention to some things but not others
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ Shaping the information into something we understand
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ Deciding what the sensation means

**Different Perceptions?**

* Any two people may perceive the same thing differently (movie, food, music, art, etc.)
* Perception depends on three factors
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
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	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Perception and Objectivity – believing is seeing**

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Think of how this affects eye witness testimony?

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**- in general learning creates perceptual habits which are well established patterns of perceptual organization and attention that affect our daily experience.

**Example** - look at these two upside-down pictures of Mona Lisa

Everyone perceives (interprets sensory information) differently. An easy example of this is how people have differing opinions on movies, books, songs, etc. Perception may also be affected by one’s mood and the environmental conditions among other things.

Something to ponder might be… is my “pink” the same as my neighbor’s “pink”… really, how would you know?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, thus, has less impact on our perceptions. With a face on a normal position you know what to expect, and where to look.