

1. The most significant perception we rely on during our performance is visual information as a human being, who is a bipedal animal.
 - 1.1. Visual fields as what we can see vary from distant places (far away), such as mountains, through the hole or “the eye” of needle, where we push the thread into the hole.
 - 1.2. Visual processing initiates the retina, where all the colors are perceived and sent to the visual cortex through the optic nerve, through the visual cortex, the occipital lobe.
 - 1.3. It takes time to process and recognize the things we see because of so much information included in the visual information more than any other perceptions, such as auditory or proprioceptive information.
 - 1.4. There are two types of visual information; one is static information, such as letters, buildings, or things lying on a table. The other is dynamic information, such as moving people, objects, or cars.
 - 1.5. We recognize all the things that we see in the frontal lobe if we need to make a decision, plan, and strategy for the next movement in our performance.
 - 1.6. We are not aware of the things moving even though we see them unless we pay attention to them.

Perception-action coupling

2. We coordinate visual information with hands or feet skill once we get used to the motor skill by repeated practices, also known as perception-action coupling.
 - 2.1. This perception-action coupling is more like automatic movement, such as catching a thrown ball.
 - 2.1.1. “Coupling” means connecting two things.
 - 2.2. The perception-action coupling can be applied for the feet, such as the long jump event in track and field.
 - 2.2.1. A long jump athlete attempts to avoid a foul while adjusting the last a few strides subtly prior to the jump although he or she exactly starts from the mark put on the side of runaway.
 - 2.2.2. This adjustment is part of the perception-action coupling rather than making a decision in the frontal lobe, which takes time to command the movement.
3. How we can improve perception-action coupling is to make an error in addition to repeated practice
 - 3.1. Error experiences always help us think about the optimal goal of action to achieve.
 - 3.2. We must reflect on the reason for the error, why we made a mistake in our performance.

- 3.2.1. We may overestimate or underestimate the situation or circumstance we face prior to performance. That is a part of performance characteristics.
4. Proprioception is peripheral receptors which help us aware of our limbs in the space perceived in the somatosensory cortex, the parietal lobe.
 - 4.1. Perception out of the proprioception can be diminished or even cannot take place if movement is fast.
 - 4.1.1. Proprioceptive information is always projected to the cerebellum no matter how fast you move the limbs.
 - 4.1.2. All the information received in the cerebellum does not make us perceive. Instead, we unconsciously coordinate fast movement as rhythm by the midbrain as well as the cerebellum if successfully performing.