

Free essay on cognitive development

[Family](#), [Children](#)



Cognitive development occurs at childhood and is about a child being able to develop or construct a mental model of the world.

- Schema: -The child has been seeing faces in the house and has built a form of representation for anything similar to a face.

- Sight: -the image in the toy is reflected to the iris, then to the pupil. After going through the pupil the light is focused by the lens and then follows the visual axis to the macula. The light from the pupil forms an image on the Macula.

- Recognition: - the toy on the floor is familiar to Nina. She knows it and that is why she sees it reasonable to pick it.

- Bending: - on seeing the object the floor, the brain triggers a sense of recognition then urgency to get the object. The brain orders the abdominal muscles to bend and the hand muscles to stretch and pick the book.

- Touch: -by leaning forward towards the toy, Nina picks it up. By touching it, the sensory nerves on her finger tips relays the information to the central nervous system where the brain is able to recognize the object.

- Speaking: -once the brain recognizes the object, it sends a signal to the speech center:

Occipital lobe to the Visual Cortex then to the left frontal lobe that processes internal speech that is commonly known as pre-speech. To the right frontal lobe that coordinates with the speech production muscles.

- Assimilation: - Nina is using an existing schema to deal with a new object. She knows that a face has eyes and a mouth. Seeing two round objects and a grill completes the comparison.

- Since Dora the explorer is driving the toy, the brain is able to make out a

similarity between Dora's face and the outward appearance of the toy.

- Looking at the mother's face enables the brain to register some similarities between the toy and the face. She bends to pick the toy and on looking up sees her mother's face. The brain makes a quick conclusion that the two are similar.

- Pointing out: -the brain controls the hand muscles to point out at the parts of the toy making out similarities in the process.

- Brain correlates objects e. g. headlights with eyes and grill with mouth. This carries the image of the toy car to the memory of the brain hence correlation.

- Recalling: - since she has seen the toy before, she can recall how Dora looks like. The brain tries to bring out what it remembers and that is a face.

- Speech center modulates voice box so that, the right frontal lobe send information to the pre motor area of the left brain that runs the muscles in the voice box thereby producing the words of acknowledgment that the headlights of the toy car looked like a person's eyes.

- Familiarity: - Nina is in familiar territory (home), her brain is able to work at fast speed. There are no constraints to her processing.

- Information flow: the brain gives out a systematic flow of information, seeing then picking. The mind is able to come up with a conclusion.

- Voice box exhales air: -Pre-motor to the Speech center facilitates voice box action. Air vibrates in the walls of the mouth to produce coordinated speech.

- Visual cortex to dorsal visual pathway: she sees an object then her mommy, trying to make out two different objects.

- Brain controls the neck to look up to Mommy: - Nina is able to recognize

that there is a person in the room with her.

- Light moves from Mommy to the cornea. From the Cornea light goes to the iris, from the iris light goes to the pupil then to the lens through the visual axis before hitting the manula. The manula feeds the optical disk which in turn feeds the optic nerve. The optic nerve feeds the chiasm and Nina can tell that the person is her mommy.

- Shapes: - the brain can tell that parts of objects have particular shapes such that the headlights being round resembled the eyes and curved grill mouth.

- Equilibration: -there is a challenge to identify what the toy is. She does not want to struggle, the brain picks out the most logical similarity.

- The optic nerve is the tube like structure that transfers images from the macula at the base of the optical disk to the brain where processing of new information on images occurs.

- The chiasm is the first part of the brain that receives light signal. The Chiasm divides the image received into two halves that are reversed and joined at the two visual lobes.

- The entire identification process is completed by inter-relating various psychological activities.

- Seeing and analyzing in the mind what the chiasma has as images.

- Comparing two or more objects and brain making out what looks alike thus making a decision or conclusion.

- The brain is not able to tell the differences at this stage.