Mrs. Holbrook

Child Development

Digital Distance Learners

#### **Teacher Contact Information:**

Please contact me with any questions during my office hours between 1:00-3:00 Monday through Friday via email or if you would like to do a virtual meeting please allow 24 hours to schedule appointment.

My email address is: <a href="mailto:cholbrook@tusd.net">cholbrook@tusd.net</a>

#### Remind:

Send text to 81010

Text this message @mrscholbr

<u>Google Classroom:</u> Please entire the following code to join: cdhnxj2

Keep in mind you will need a gmail account to log in. If you are unable to create a gmail, you may email me your assignments for the next 5 weeks. You can answer in complete sentences on a google doc, word doc or email form.

### Assignment Week 2:

#### **Chapter 9 Intellectual Developmental Development of Infants:**

- The Two Sided Brain (50 points)
- Piaget's Theory of Intellectual Development (50 Points)

#### **Learning Objectives:**

- Students will explain how the brain becomes organized.
- Students will identify specific abilities that babies learn during Piaget's first period learning.

\*\*\*Please do not hesitate to contact me with any questions, remind is a quick way to answer any questions as well!

Mrs. Holbrook

## Early Brain Development

# Section 9–1

## The Two-Sided Brain

Viewed from above, the human brain is visibly divided into two parts called the left and right hemispheres. (*Hemisphere* means "half of a sphere.") At first, scientists thought that the hemispheres were identical in purpose and function. Later, it was noticed that people who suffered injury to the brain would show different physical symptoms depending on the side of the brain that was injured. If the left hemisphere was involved, the patient suffered speech impairment. Injury to the right hemisphere often resulted in the distortion of how objects in space were seen, but no damage to language ability.

Continued research has found that the hemispheres are responsible for entirely different processes. Although the following data about brain functions are generally true, it is important to remember that some individual variations are possible.

#### THE LEFT HEMISPHERE

The left hemisphere processes information in a *linear*, or step-by-step, manner. It understands the relationships between time and place, and it specializes in seeing the individual parts of a whole. It is most effective in dealing with speech, language, mathematics, and written music. Think of the left brain as a computer that operates on a sequence of switches and by programmed commands.

You rely on your left brain when you assemble a bicycle, try a new recipe, memorize vocabulary words, or follow a map. Young children use their

left brain when they sort shapes, count, and learn to use verbs.

Class

#### THE RIGHT HEMISPHERE

The right hemisphere is more effective in comprehending the relationships between physical objects, such as how the parts of an object relate to a whole object, or how one thought expands into a complete idea. It is busy seeing patterns and the way processes relate to one another. The right brain likes to take different elements and organize them into one. Think of the right brain as a kaleidoscope that mixes up colors and shapes into designs.

You use the right side of your brain when you create a poem, redesign your room, or visualize yourself succeeding on an upcoming test. Children use their right hemisphere when they draw a picture, dance, or imagine themselves as a character in a story.

#### THE WHOLE BRAIN

Importantly, the hemispheres are not so entirely separate that they can function completely on their own. Rather, each side complements the other. The complete brain functions as a whole, using the talents of both sides simultaneously, depending on the need. To be effective thinkers, children need to develop both sides of their brain to their maximum potential. Because traditional teaching methods favor linear, analytical thinking, children's left brains are probably more developed than their right brains.

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### Early Brain Development

Section 9–1

## **Taking Action**

Choose three of the topics below to create three brief lessons using right-brain activities for a preschool class. Describe the specific activity you will use for your three items.

Think of ideas in visual patterns, such as charts, maps, diagrams, and pictures.  Activity:
Use creative fantasy to teach a concept such as <i>before</i> and <i>after</i> or <i>up</i> and <i>down</i> .  Activity:
Use imaginative expressions and creative imagery to develop language skills.  Activity:
Use metaphors to recognize the connections between two unlike things.
Activity:
Reinforce facts with hands-on experiments, field trips, and role-playing.  Activity:
Use sensory experiences to help remember information.  Activity:
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Use music to excite the creative energy and help you memorize information.  Activity:

# **Piaget's Theory of Intellectual Development**

This chart can help you better understand Piaget's periods and stages of development.

Age	Period and Stage	Abilities
1 month	Sensorimotor period Stage 1	<ul><li> Uses inborn reflexes.</li><li> Moves only in random motions.</li></ul>
2–4 months	Sensorimotor period Stage 2	<ul><li>Combines reflexes.</li><li>Develops hand-mouth coordination.</li><li>Notices surroundings.</li></ul>
4–8 months	Sensorimotor period Stage 3	<ul><li>Discovers cause and effect.</li><li>Works to produce results.</li><li>Improves hand-eye coordination.</li></ul>
8–12 months	Sensorimotor period Stage 4	<ul><li>Solves simple problems.</li><li>Finds partially hidden objects.</li><li>Imitates others.</li></ul>
12–18 months	Sensorimotor period Stage 5	<ul><li>Finds hidden objects.</li><li>Explores and experiments.</li><li>Understands object permanence.</li></ul>
18–24 months	Sensorimotor period Stage 6	<ul><li> Thinks symbolically.</li><li> Thinks imaginatively.</li><li> Solves problems by thinking through sequences.</li></ul>
2–7 years	Preoperational period	<ul> <li>Learns from concrete evidence.</li> <li>Thinks of objects in terms of own activities and what is perceived at the moment.</li> <li>Solves problems by pretending or imitating.</li> </ul>
7–11 years	Concrete Operations period	<ul> <li>Learns best through direct experiences.</li> <li>Understands that operations can be reversed.</li> <li>Classifies objects into categories.</li> <li>Places objects in a series.</li> <li>Understands transitivity—that a relationship between two objects can extend to a third object.</li> <li>Understands conservation—that a certain amount of material can take different forms and shapes.</li> <li>Sees different sides of an issue.</li> </ul>
11 years– Adulthood	Formal Operations period	<ul><li> Thinks abstractly.</li><li> Solves problems by logical thinking.</li><li> Forms ideals.</li><li> Understands double meanings.</li></ul>

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## **Taking Action**

Choose one of Piaget's periods or stages of development and list two appropriate activities. You may suggest traditional games or tasks or devise new ones. Be sure to indicate whether a parent or caregiver interacts with the child or whether the child does the activity alone or in a group of children. Explain how each activity helps the child develop his or her abilities.

Piaget's Period or Stage of Dev	elopment:	
Activity 1		
Description:		
Developmental Benefits:		
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) 9		
Activity 2		
Description:		
Developmental Benefits:		