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Cognitive Development in Early and Middle Childhood

 My research topic for the semester focuses on the process of cognitive development in early and middle childhood, and the four articles used for this paper explain the different stages at which this occurs. The articles included in this paper are "Early Childhood Cognitive Development: Introduction," written by Angela Oswalt, which offers insight on developments in the first years of an infant's life. An informative article written by Saul McLeod entitled "Jean Piaget," breaking down the stages of Piaget's Theory of Cognitive Development. A stimulating article on the cognitive, social, emotional, and physical development occurring during middle childhood, "Spotlight on Middle Childhood: Rejuvenating the 'Forgotten Years'," by Kandice Mah and Lee Ford-Jones. An article published in April 2017 focusing on the works of Piaget and the stages of cognitive development entitled, "Cognitive Development." After further researching this topic, I have begun to understand how and at what ages a child begins to develop certain cognitive abilities to prepare them for life.

 As children grow, they mature both mentally and physically. However, it is difficult to track at what age a child's mind develops, because each child matures at a different rate (Oswalt). From birth to adulthood, the brain is constantly developing at alarming rates. The brain develops most in the first few years of a child's life. Jean Piaget began to question the thought processes between children and adults. His research and experimentation led to what is known as Piaget's Theory of Cognitive Development. This theory explains that children are not born with intelligence; rather it is gained through maturation and interaction (McLeod). Piaget believed that babies come "programmed" with certain neonatal schemas, which allow children to control their cognitive abilities (McLeod). As children grow, they activate other regions of their brains (Mah and Ford-Jones). This occurs because children begin to figure out which region of the brain to activate for certain activities. This is known as the Sensorimotor stage when children begin to broaden their imagination. This stage usually occurs from birth to age two. Instead of playtime just being fun, it becomes an important part of brain development. Children transition from scattered activities to more focused games. They begin to create fantasies with elaborate plots and details. The rate at which this happens depends on the experiences the child has been introduced. Children are more likely to be successful when they participate in stimulating experiences and interactions, which broaden their cognitive capabilities (Mah and Ford-Jones). The next stage begins around age two and lasts until age seven. It is referred to as the Pre-operational stage. During this stage, children begin to master multi-tasking. The next stage does not occur until middle childhood.

 The next phase of development occurs during a time referred to as middle childhood, also known as the "forgotten years" (Mah and Ford-Jones). During middle childhood, there is much advancement in cognitive development as well as emotional, physical, and social development. During the concrete operational stage, children begin to use logical and operational thinking. Between the ages of six and 12 is when children begin using concrete operations such as adding, subtracting, alphabetizing, and transforming ("Cognitive Development"). These processes are considered concrete operations because the child is conducting them in front of the objects they are thinking about. The development of a child's brain relies heavily on the environment they are accustomed. Jean Piaget believed children create an acceptance of their environment and notice changes that occur (McLeod). The brain undergoes a number of transformations during middle childhood, for example, myelination begins to occur. Myelination increases conduction speed and synaptic transmission between the left and right hemispheres (Mah and Ford-Jones). While myelination is occurring, the cortical gray matter of the brain also begins to develop. Both of these processes allow the brain activity and response times to increase.

 Middle childhood is the time when children progress into independent individuals. They become prominent individuals in their families and communities. This last stage of development is referred to as the formal operational stage and lasts from age 11 to adulthood. In early adolescence, children begin to focus on personal decision making both at home and at school ("Cognitive Development"). Children are growing into teenagers and young adults who are transitioning between concrete and formal operations. Children begin to develop a more abstract thought process and begin thinking for them. With the expansion of more complex thinking processes, developing teenagers begin to think of future concerns. Teenagers begin to recognize who they are as a person, create their own identity, and create future goals. Aside from thinking of themselves, they also begin to think of real-world issues, such as global concepts, history, and politics ("Cognitive Development"). During middle childhood, the neurons associated with cognition, language skills, and social skills are being consolidated. Between the ages of seven and 11, children begin to gain cognitive control, which allows them to process information more efficiently (Mah and Ford-Jones).

 In conclusion, cognitive development in early and middle childhood prepares children and developing teenagers for a successful life. Jean Piaget developed his theory of cognitive development to understand what changes and at what age. He created four stages of cognitive development to track the advancements that occurred. These stages are Sensorimotor (birth to age two), Pre-operational stage (age two to age seven), Concrete Operational stage (age seven to age 11), and Formal Operational stage (age 11 to adulthood). They begin developing cognitive abilities at birth and continue developing well into adulthood. Between birth and adulthood, the brain is developing at alarming rates; however most brain development occurs during early childhood. This is when children begin to transition from scattered games to more focused activities. Then children move to early childhood where their cognitive abilities continue to increase. This is when children transition from the Pre-operational stage into the Concrete Operational stage. Certain processes take place in the brain further developing it, such as myelination. This is also the time where children transition into independent individuals and developing teenagers. At this point, the developing teenager transitions into the final stage of development, the Formal Operational stage. This stage will last from age 11 until adulthood.

Works Cited

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