

History of piagets theory of cognitive development education essay

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Developmental and learning process introduce us with a lot of theories which is important for a deeper explanation on how developmental work.

Sometimes a better explanation will lead to a better solution. One of the theories that is the focus of this paper is Piaget's theory of cognitive development. Jean Jacques Piaget was born in Neuchatel, Switzerland on August 9, 1896. He was a Swiss psychologist and one of the research theorist in developmental psychology. He spent his life by studying the intellectual development of children.. In child psychology, he studied both though process and how they change accordingly with age as the child experience a series of maturational. His study had given a great influence on child psychology, intellectual development and even philosophy. In this essay, I will elaborate more on the basic concept of the theory, how the theory can be applied to child development , children at preschool and early primary levels. Cognitive development is basically the construction of thought process including memorizing, decision-making, problem solving from childhood to adulthood. Piaget's theory suggests that human's thinking mechanism is a progressive restructuring of mental progression as a result of biological maturation, activity, social experience and equilibrium.

According to Gordon & Browne (1985), Piaget also believed that all species inherit a basic tendency to organize their lives and adapt to the world around them. Kids or young child view this world differently from older children and adults. The insight of the child's though changes as they grows and develops. Through the process, the intelligence and knowledge of the children are often constructed based on their life experiences. Activity is necessary to regulate the feature of intellectual development. Children

require both mental and physical activity in the form of particular material experiences for learning process. The process of development in children including schemes, assimilation, accommodation, organization and equilibration used as they are about to develop their knowledges of the world. Piaget's theory of cognitive development proposes that children experience four distinct stages of mental development. His theory does not only focus on how children acquire knowledge, but also the understanding of the nature of intelligence itself. These four stages include sensorimotor, preoperational, concrete operational and formal operational. The sensorimotor is a stage of the first two years of life. This level is centered on the infant starting to understand the world through their sensory reception and movement by interacting with the physical environment. Infant learns through touching, whipping, biting and so on, as well as to coordinate perceptual and motor functions such as seeing objects and then grabbing it. Santrock (1982) in his book says, at the end of the sensorimotor stage, 2-years-olds can produce complex sensorimotor patterns and use primitive symbols. For example, an infant is pretending to talk on a toy telephone or knock barrier out of way to grasp pencilbox. The second stage is pre-operational stage occurs roughly between two to seven years old. Learner & Johns (2009) propose that during this stage, children make intuitive judgments about relationships, and they also begin to think with symbols. Children do not yet comprehend concrete logic, unable to mentally manipulate information, and concern on their own interest which Piaget termed as egocentrism. They gradually acquire new words such as "yummed it up," or " my ponytail was keeping me in bothers". The concrete

operational stage, is the third Piagetian stage which begins around seven to eleven years old. Children have developed one step further as they now gain a better understanding of mental operations. They begin to think logically and handle several ideas at the same time. However, they still have difficulty conceiving theoretical or hypothetical concepts. For example, a child can recognize a set of objects without physically touching them. The last stage in Piagetian is the formal operations stage appears between eleven and fifteen years of age. According to Lerner & Johns (2009) , children in this phase have the capacity to work with abstractions, theories, and logical relationships without having to refer to the concrete. The formal operation period provides children with problem solving. In order to solve a problem, the thinkers tend to use logical reasoning in a systematic way. The children will have more self-awareness of the consequent of their behavior. They are not depended solely on previous experiences, they begin to rethink the possible outcomes of an action and this type of mental operation is essential for long-term outlining. Jean Piaget theories of cognitive development can be applied to children in preschool and early primary levels. Although Piaget is not an educator, his theory had widely been used in school system throughout the world. His theory of development outlines the thought of children varies at different ages. Piaget's theory can best be applied for classroom management. In order to support Piaget's theory, the teacher needs to understand that the though of the students are at different developmental stages. With this concept, the teachers must alter their classroom environment appropriately. Teachers in preschool cannot have the class environment similar to those in primary school level. It is recommended for

them to gear their students' grade to the age appropriate level. They will find that teaching process will become easier if they know the need of their student very well. Santrock (1982) in his book states that Piaget emphasized that children learn best when they are active and seek solutions for themselves. Piaget suggests that children need to have self discoveries and achieve understanding by themselves. In order to have a constructivist classroom activity, the teacher plays an important role to encourage their students for self discoveries while conducting an active dialog. Piaget's study of children cognitive development mainly with quantitative concepts had given a lot of benefits towards the field of education. His theory provides mathematics teachers with important perception into how children acquire mathematical concepts and theory. Children at concrete operational stage develop language acquisition more dramatically than at their first and second piagetian stage. Children of this level use their senses in order to acquaint, they are now acknowledging two or three dimensions synchronously instead from the perspective of one dimension. For example, a teacher can prepare mathematics exploration materials to accompany the lesson. If they are teaching multiplication , they can utilise small math tiles on the board to link the numbers and description. In addition, according to Lerner & Johns (2009), seriation and classification are the two logical operations that develop during this stage and both are essential for understanding number concepts. A teacher can create fun activities to the students such as paper cutting and folding. At the time students utilize the materials, they gain experiences that help them to lay the foundation for further mathematical thinking. Moreover, their mathematical confidence can

be built by the use of materials that provide them a way to test and confirm their reasoning. Constructivism is a new access in education that assert human are better comprehend the knowledges they have constructed by themselves. In Piaget constructivist classroom, he believes that a variety of activities must be provided to expose students with individual differences, discover new opinion, built their own information, and increase awareness towards their readiness to learn. In this new millennium, most classes are equipped with projector, videodisks, CDRoms and simulation software to enhance learning ability. These are the advantage of an advance learning that provides context for dialogue and interaction in the classroom that lead to social structuring of information. Furthermore, the students will get the opportunity to disclosed to another brand new ideas, social context and global issues. For the children at early primary level, a teacher can take an initiative by querying more question than giving answers. Ask them open-ended questions that need deep thinking rather than a question with a single answer. After they answer the question, ask them to justify their answer regardless of whether their answer is correct or incorrect. A teacher can foster their thinking by asking them " what is your evidence of your answer?" or " Why do you think that?". As a conclusion, Piaget's cognitive development appreciated the significance of intellectual constructs and internalizing the knowledge given rather than accepting the information as presented through rote-memory. Concept in cognitive development have been broadly elaborated over the years. Piaget's theory had given a great contribution toward the mental proccession generally towards the learning ability in children. Santrock (1982) in his book pointed out that Piaget

opened up a new way of looking at infants with his view that their main task is to coordinate their sensory impressions with their motor activity. From my point of view, Piaget's theory is well implemented in the education sector as most of educational and curricular programs are now been set up on the belief that children should be educate at the stage for which they are developmentally prepared. Moreover, there are a lots of instructional strategies construct base on Piaget; s work. These planning comprise of supportive circumstances, establising social communication and peer teaching, and assisting children aware of the inconsistencies and misconception in their thinking.