



# EDUCATIONAL IMPLICATIONS OF PIAGET THEORY IN ALIGNMENT WITH THE STAGES OF SCHOOLING AS PER THE RECOMMENDATIONS OF NATIONAL EDUCATION POLICY 2020

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## Abstract:

Psychology and Education are interrelated and interdependent. Both are the two sides of the same coin, whereas Psychology deals with study or Science of behaviour and Education deals with modification of behaviour. Basically, Psychology is a theoretical aspect and Education is a practical aspect. Psychology applies its theories in the field of Education. We cannot think any good educational policy without psychological theory. NEP -2020 also based on some applicable psychological theory. Cognitive development theory of Piaget is one of them. Piaget's cognitive development theory is constructive in nature. According to this child is born with some cognition and teacher, school facilitate only. Child is the center of education. Curriculum should be designed on the basis of need, interest, ability, style of learning of child. It also gives importance on individual differences. These are the contribution of Piaget's theory of cognitive development. And these are reflected on National Education Policy -2020. This paper focus on educational implication of Piaget theory in the stages of schooling as per NEP-2020. The goal of NEP-2020 can be realized within time frame, if all the members of various stakeholders of education from top to bottom play their responsibility wholeheartedly.

**Key Words:** Piaget theory, NEP-2020, Educational implication

## Introduction

The aim for India's new education system is outlined in the National Education Policy (NEP) 2020, which was adopted by the Union Cabinet of India on July 29, 2020. Prime Ministers Indira Gandhi, Rajiv Gandhi, and Narendra Modi issued the first, second, and third NPEs on behalf of the Indian government, respectively, in 1968, 1986, and 2020. The goal of this policy is to make India a global knowledge superpower by giving everyone access to high-quality education. India's education policy is being reformed in several ways by the NEP 2020. It seeks to raise the amount that the state spends on education from about 4% to 6% of GDP (Behera, 2023). The National Education Policy places a strong focus on helping each person reach their full creative potential. It is predicated on the idea that cognitive abilities including the fundamental skills of literacy and numeracy as well as higher-order skills like problem solving and critical thinking as well as social, ethical, and emotional abilities and dispositions must be developed through education. (National Education Policy 2020). The Policy proposes various reforms in school education, higher education, technical education and teacher education to make learning more contemporary and suites to future needs. Universal access to all level of schooling, quality Early Childhood Care Education, reforms in curricular and pedagogical structure, no hard separation

between steam and activities and many others reforms in school education proposes by NEP -2020 to provide high quality educational opportunity to young mass to determine the future of our country (Behera, 2023).

### Reforms in Curricular and Pedagogical Structure

The NEP changes the existing 10 + 2 structure of School Education to a 5 + 3 + 3 + 4 structure covering children between the age of 3 to 18. Total School Education split up to four stages, where learners will spend 5 years in strengthening their foundation, 3 years in the preparatory stage, 3 years in the middle stage and rest 4years in the secondary stage.

1. **Fundamental stage**, which consists of two parts (three years of Anganwadi/preschool and two years of primary school in Grades 1-2; together, encompassing ages 3-8), has a flexible multilevel curriculum, play- and activity-based learning, and Early Childhood Care and Education (ECCE) pedagogy (Behera, 2023). This stage is centred on development of language skills through play and activity- based learning method.
2. **Preparatory stage**(Grades 3-5,covering ages 8-11): with the development of language and numeracy skills through play and activity- based teaching method with a solid groundwork on varied subjects. It includes classroom interactions, reading, writing, speaking, physical education, art, languages, science and mathematics (Borkar,2023).
3. **Middle stage** (Grades 6-8, covering ages 11-14): with a subject oriented pedagogical and curricular style(Behera, 2023).This stage focuses anintroduction of experiential learning across the Sciences, mathematics, arts, social science and humanities (Borkar,2023).
4. **Secondary stage**(Grades 9-12 in two phases, i.e., 9 and 10 in the first phase and 11 and 12 in the second, covering ages 14 -18): with greater depth, greater critical thinking, greater attention to life aspirations, greater flexibility and multidisciplinary education and student choice of subject and option to exist at grade 10 and reenter at a later stage in grade 11(Behera, 2023).

### Cognitive Development Theory of Piaget

Studying human thought, memory, language, development, perception, images, and other mental processes allows cognitive psychologists to get an understanding of higher order human mental processes including insight, creativity, and problem solving. The most well-known cognitive psychologist of the modern era is Jean Piaget, a Swiss psychologist. He has demonstrated a strong interest in learning about how children's cognitive processes and talents develop. Piaget's theory of cognitive development is a thorough hypothesis that addresses the origins and evolution of human intellect. He suggested four phases for children's growth. The four stages are as follows: sensorimotor, pre-operational, concrete operational and formal operational.

1. **Sensorimotor stage(birth to 2 years):**  
Piaget called it sensorimotor stage because firstly, it is characterized by the absence of language and secondly, it is limited to direct sensory and motor interactions with the environment.In this stage, children experience the world and acquire the knowledge through their senses and motor movements. They discover more about the world around them through trial and error.
2. **Pre -operational stage (2- 7 years):**  
In this stage, children begin to engage in symbolic play, learn to manipulate symbols and start to talk. They are egocentric in nature but do not understand concrete logic. This stage can be sub-divided into the pre- conceptual phase (approx. 2-4 years) and the intuitive phase (approx. 4-7 years). Children usually make mistakes in the process of identification and concept formation in the pre- conceptual phase. But in the intuitive phase the child progresses towards the formation of various concepts at a more advanced level. Here they are unable to develop the abilities of reversibility (ability to reverse) and conservation (ability to see an object as permanent even though its length, width or shape changes).
3. **Concrete operational stage (7-11 years):**  
In this stage, children have great understanding of logic, reversibility (ability to reverse), conservation (ability to see an object as permanent even though its length, width or shape changes) and develop the abilities to deal adequately with classes, ability of serialization like arranging things from largest to smallest and vice versa.
4. **Formal operational stage (12- 15 years):**  
Children at this stage develop a variety of theories and potential solutions, check each one logically and methodically, generalise, and come up with abstract rules that apply to a wide range of particular circumstances. A kid may reach their maximum intellectual potential once they have completed the

formal operational stage, according to Piaget. A child may use scientific reasoning and problem-solving techniques to find the solution to the issue (Mangal, 2014).

### **Piaget theory in alignment with the stages of schooling as per the recommendations of National Education Policy 2020**

The philosophy and practice of education have been greatly influenced by Piaget's theory of cognitive development. It has contributed to the formation of an opinion in which the concept of developmentally appropriate education is the main topic of discussion. This is a reference to an educational setting that accommodates students' physical and cognitive demands in addition to their social and emotional needs through curriculum, materials, instruction, and settings. Piaget's cognitive theory has a major impact on National Education Policy -2020. It is clearly visible in the changed structure of School Education. These are

#### **1. Foundational stage (5 years):**

**For ages: 3 to 8**

**For classes: Anganwadi/pre-school, class 1, class 2**

According to Piaget, in this stage the child's direct action in the form of sensory or motor explorations is replaced by words, or with other symbolic representation or images about environment. His thought process at this stage usually displays a high degree of ego-centrism, or inability to consider other's point of view. **NEP-2020** also focuses on teaching in play-based or activity-based methods and on the development of language skills in this stage.

#### **2. Preparatory stage (3 years):**

**For ages: 8 to 11**

**For classes: 3 to 5**

According to Piaget, Children can think abstractly at this time, but they are starting to reason logically. Their mental processes are restricted to tangible things and occasions. They can, however, comprehend cognitive concepts like conservation, number, and classification. **NEP-2020** also gives importance on language development and numeracy skills in this stage. Here, the method of teaching and learning are play and activity-based, and also include classroom interactions and the element of discovery.

#### **3. Middle stage (3 years):**

**For ages: 11 to 14**

**For classes: 6 to 8**

According to Piaget, in this stage individuals are able to think abstractly, test hypotheses and deal with problems that are not physically present in their environment. **NEP 2020** emphasis on critical learning objectives at this stage of schooling marks a significant departure from the rote learning techniques that have long been employed in our educational system. Additionally, this stage addresses experiential learning in the sciences, mathematics, arts, social sciences and humanities.

#### **4. Secondary stage (4 years):**

**For ages: 14 to 18**

**For classes: 9 to 12**

According to Piaget, in this stage individuals are able to think abstractly, test hypotheses and deal with problems that are not physically present in their environment. **NEP-2020** Recommended that the change in these classes is from a strictly Arts, Science, and Commerce-based curriculum to a multidisciplinary one where students can choose from a wide range of topic combinations based on their interests and skill sets. Once more, this stage encourages more critical thinking and mental flexibility.

### **Conclusion:**

In conclusion we can say that Piaget's cognitive theory has a great impact on National Education Policy -2020. Piaget has a constructivist stance and thinks that information is not passively acquired by students. Children construct their own knowledge on the basis of their experience. According to Piaget, curriculum and methods of teachings should be based on cognitive development of learners by learning concepts and logical steps. He believed in discovery based, problem solving and experiential learning. Active engagement of learners like individual and collaborative is important for fruit full learning. Role

of a teacher is facilitator, helps in cognitive development of learners by providing materials, equipments, aides and counselling services. Teacher should design in such a way so that student will learn effectively and efficiently. And these are reflected in NEP-2020. According to NEP-2020, curricular content should be pared down to the essentials in each topic to allow for more holistic, inquiry-based, discovery-based, discussion-based, and analysis-based learning as well as critical thinking. Key concepts, ideas, applications, and problem solving will be the main topics of the content. For deeper and more experienced learning, teaching and learning will be carried out in a more participatory way, questions will be welcomed, and classroom sessions will frequently include more enjoyable, creative, collaborative, and exploratory activities for students (National Education Policy 2020).

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