

Piaget's Theory of Cognitive Development

A Direct Comparison of Piaget's Stages of Child Development and Modern Child Development

Hannah Bradt

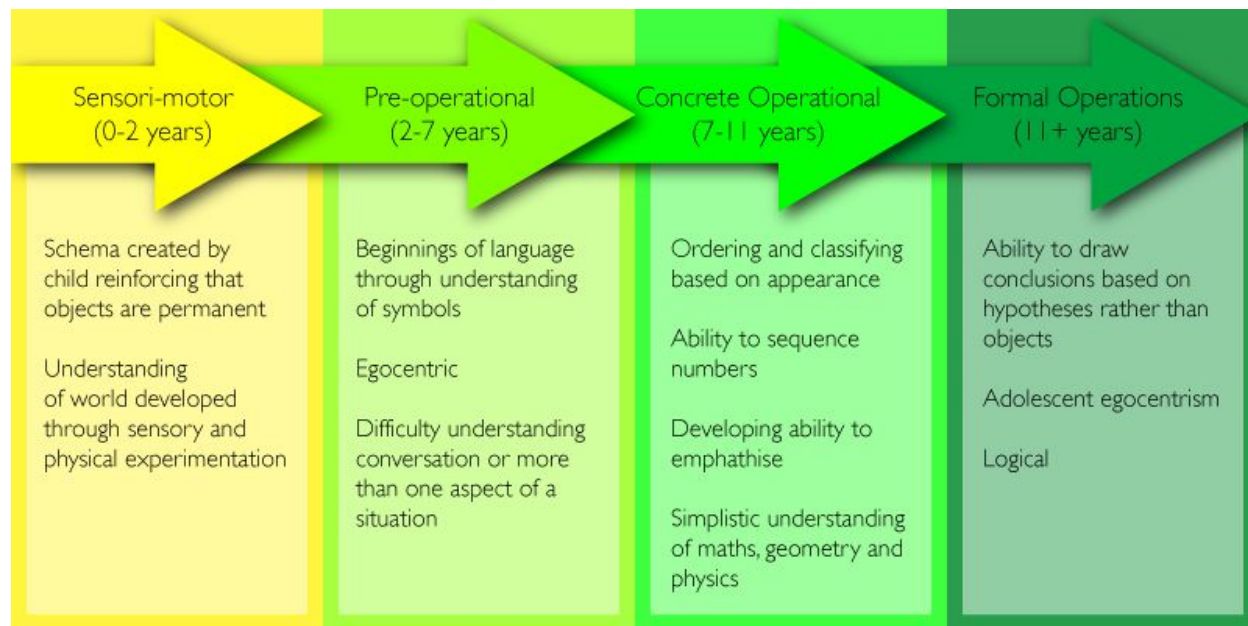
Piaget's Theory Background

Piaget's Theory of Cognitive Development, published in the 1900s, was created by Jean Piaget, a Swiss Clinical Psychologist, and was intended to describe the ways in which children of specific ages are expected to function in society. These stages were determined through many years of observation, and were decided based on the various opportunities that the majority of children should have been able to experience in their environments at their certain ages. This theory does not take into consideration the many children who live in poverty or do not have the same privileges as others, and therefore does not always provide an accurate description of development for each child.

As modern society and its technologies continue to develop, Piaget's Theory has slowly become less relevant and accurate to the most recent generations of children. Elementary school students are forced to mature more and more quickly as parents enroll them in extra-curricular activities for every day of the week, allow them to have the newest technologies such as cell phones, and permit them to create accounts and participate in various social media platforms. This exposes young students to many factors of today's society that would typically be hidden or shielded from children in previous times, and causes them to feel the need to 'grow up' much more quickly, seemingly taking away their opportunity to have a care and worry free childhood. Although many children participated in extracurricular activities at a young age such as soccer or cheerleading, the participation was limited, allowing them to still have a chance to enjoy being young. Childhood was meant to be a simple experience. However, modern society has found a way to recreate childhood, forming it into a time in an individual's life when they first begin to experience the evils of the world, and already form strict schedules that must be followed.

Because the ideas of childhood have changed, the many stages of child development have followed suit, resulting in the increasing inaccuracy of Piaget's Theory. Although this theory is still applicable to gain an overall understanding of the development path that children follow, it is no longer specific, as children are now exposed to many more outside influences than they would have been in the 1900s, when this theory was published. These factors create environments in which children mature much more rapidly, frequently experiencing what once could be called the "adult world."

Through intensive research and observation of elementary age children, I will begin to re-create the theory of child development that was created by Jean Piaget in the 1900s, so that it is more applicable and accurate for modern society. It will incorporate the effects of modern technologies and social media on children, as they are introduced to ideas and events that have the potential to act as negative influences in their lives. Each of the four stages present in Piaget's Theory of Cognitive Development will be analyzed and broken down, followed by a comparison to modern observations, as observed in elementary classrooms.



| Stage and Approximate Age | Achievements and Activities | Limitations |
|-------------------------------------|--|---|
| Sensorimotor (birth to 1½ years) | Reacts to sensory stimuli through reflexes and other responses | Little use of language; seems not to understand object permanence in the early part of this stage |
| Preoperational (1½ to 7 years) | Develops language; can represent objects mentally by words and other symbols; can respond to objects that are remembered but not present | Lacks operations (reversible mental processes); lacks concept of conservation; focuses on one property at a time (such as length or width), not on both at once; still has trouble distinguishing appearance from reality |
| Concrete operations (7 to 11 years) | Understands conservation of mass, number, and volume; can reason logically with regard to concrete objects that can be seen or touched | Has trouble reasoning about abstract concepts and hypothetical situations |
| Formal operations (11 years onward) | Can reason logically about abstract and hypothetical concepts; develops strategies; plans actions in advance | None beyond the occasional irrationalities of all human thought |

Stage One: Sensorimotor

Ages 0 to 2

The first of four stages in Piaget's Theory of Cognitive Development is called the Sensorimotor stage, and is made up of characteristics describing children from the ages of 0 to 2. Because Piaget's Theory is based heavily on environmental experiences that children have as they age, and children at the ages 0 to 2 have not had the opportunity to experience many outside environments, the sensorimotor stage highlights much of what children are unable to do, rather than what they are able to do.

The Theory of Cognitive Development explains that child development in the sensorimotor stage is centered around what can be identified as schemas, or mental representations about what things are in a surrounding environment. These schemas describe the pattern that thought processes may follow, and are applicable in Piaget's Theory in the ways that all children begin to understand their surroundings. Based on Piaget's observations, during the sensorimotor stage, toddlers begin to form schemas primarily about movement, as they are typically unable to crawl until age of 7 to 10 months, and finally begin to walk around the age of 12 months. By observing the ways that others around them, such as parents or siblings, children at this age are able to form an idea or schema of simple movements such as walking; these types of schemas are referred to as action schemas.

Aside from the development of schemas, toddlers are also characterized by the term 'egocentrism,' meaning that, at this age, they are unable to understand the opinions, views, or needs of others. This characteristic often continues through the pre-operational stage, which is made up of children ages 2 to 7, and ultimately begins to disappear around the age of 7 or 8. When egocentrism is no longer a characteristic of children, this means that they have learned to acknowledge and understand that others surrounding them might have views that contrast or vary from their own.

Finally, the Sensorimotor stage can be described with the idea of 'Object Permanence,' which is understood to develop when the child is between 8 and 12 months old. Object Permanence is described as the idea that although an object might not be in an individual's direct line of vision, that object still exists. Babies struggle with this concept, as once an object can no longer be seen, they assume that it is no longer in existence. During the sensorimotor stage, children begin to form mental images and ideas about their surroundings, and learn from each object and the task that it performs. Because objects in modern society have begun to change drastically, interactions with new typical household items might have a completely different impact on babies than they did when Piaget created his theory.

Stage Two: Pre-Operational

Ages 2 to 7

The second of Piaget's four stages in the Pre-Operational stage, which consists of characteristics describing children of the ages 2 to 7 years old. Because this stage encompasses a range of ages over a five year span, a great amount of changes have been recognized as the pre-operational stage progresses. Therefore, many characteristics that are present during the beginning of this stage begin to lessen or disappear throughout these crucial five years in development.

As seen throughout the previous sensorimotor stage, the idea of egocentrism is still present, as young children are unable to recognize that others form perspectives and opinions that vary from their own. Once children have formed their own thoughts on a specific topic or item, they automatically assume that everyone must share this same opinion, rather than recognizing that there are other possibilities. While egocentrism characterizes children during the beginning of this stage, as children are able to mature and continue interacting with their environment, the process of 'decentering' begins to take place. Decentering works to counteract the previous egocentrism, as children slowly move away from the idea that they are always the center of attention, instead realizing that others' ideas vary, and that others might also be the center of attention. This process marks an increase in maturity, and can be seen throughout the middle and end of the pre-operational stage, beginning around ages 4 and 5.

Animism and symbolism characterize the majority of this stage, as children utilize their imaginations in order to better understand their surroundings. Animism is a characteristic that allows children to give any inanimate object human characteristics. For example, if a child is injured by falling on pavement while running, the pavement might be considered naughty, because it caused the child to fall. Symbolism, on the other hand, is a characteristic that can be defined as "...when something is allowed to stand for or symbolize something else" (Edwards, Hopgood, Rosenberg, and Rush). Symbolism provides a way for children to learn about their surroundings, as well as to improve memory. This skill can be utilized throughout childhood, but is most commonly and abundantly recognized through the pre-operational stage.

Aside from these major developmental changes, children also begin to experience basic changes that are easily recognized. Vocabulary begins to expand greatly during this time as children are able to attend preschool and elementary school, and can also observe conversations of others in their surroundings. However, children do not yet understand concrete logic, which begins to develop in later stages.

Stage Three: Concrete Operational

Ages 7 to 12

The third stage in Piaget's Theory of Cognitive Development is known as the Concrete Operational stage, encompassing children of the ages 7 to 12. In this stage, a child is seen to begin maturing at a more rapid pace, as they communicate with an expanded vocabulary, develop more logical thought processes, and have the ability to understand a variety of topics in a much more concrete way. However, children during this stage continue to struggle with abstract ideas and thought processes, rather depending heavily on what they know to be certain. Also characterized in this stage is a child's ability to use inductive reasoning skills and understand the concepts of reversibility and conservation. Also during the Concrete Operational stage, egocentrism disappears completely, and the child becomes more sociocentric, focusing less on themselves and more on their specific social groups.

The development of logical thought processes are a key characteristic in this stage, as children begin to mature mentally, and become increasingly able to comprehend more difficult topics, as well as to function more highly in society. Children at this stage are typically able to understand and use inductive logic, meaning that they have the ability to take thoughts and ideas from specific experiences and apply them to general ideas or principles. For example, if children find that they have itchy eyes and a tight throat around cats, they may use inductive logic to determine that they might be allergic to cats. The use of deductive logic, however, remains an area of difficulty for children in Concrete Operations, as they do not yet have the ability to grasp the concept of utilizing ideas from a general principle to predict the outcome of a specific event.

Developing an understanding of reversibility and conservation are also characteristics of the concrete operational stage, as children at these ages learn and solidify their understanding of objects. Reversibility, or the awareness that all actions are capable of being reversed, begins to become apparent as children reverse the order of relationships between mental categories. For example, a child might realize that their dog is a golden retriever. Then, they would understand that a golden retriever is a dog, and a dog is an animal. This form of reversibility will become present in many instances as the child begins to better understand the concept. Conservation, on the other hand, deals with a child's understanding of 'amounts' of various items. During the Concrete Operational stage, children will begin to understand that, although a certain item may change shape, it still has the same amount of substance as it did previous to the change. For example, a piece of candy that was broken still has the same amount of candy. This stage signifies a time of maturity for children as they move towards the final stage, Formal Operations.

Stage Four: Formal Operations

Ages 12 to Adolescence

The fourth and final stage in Piaget's Theory is Formal Operations, describing characteristics of children ranging from the age of twelve and further into adolescence. Because this is the final stage of Piaget's Theory of Cognitive Development, it marks a time in which a child is considered to be fully developed, and is a sign of maturity and the ability to function at a high level in society. Although a child continues to learn and grow from experiences that they will encounter in future environments, the time spent in the Formal Operations stage of development allows children to completely develop and increase their understanding of logical thought processes, deductive reasoning, and systematic planning. Abilities to use problem solving skills and abstract thoughts are also developed and solidified during this stage.

While individuals in previous stages of development were observed to struggle greatly with personal hypotheses, those who are in the Formal Operations stage begin to experience a much more sophisticated type of thinking, and are able to incorporate deductive reasoning skills into their thoughts, allowing them to take ideas found in general principles, and apply them to specific situations that they may be experiencing. Children have the ability to manipulate their thought processes in order to predict final outcomes and consequences of their actions, which allows them to move away from the previous trial-and-error methods of problem solving, which were prevalent during preceding stages. The new development of advanced problem solving skills allows a child to think methodically, ultimately leading to the ability to plan quickly with various organized approaches.

The development of logical thought processes, the ability to create personal hypotheses, and the increased understanding of problem solving skills are all major characteristics of Piaget's final stage. However, Formal Operations can also be characterized by minor traits as well. "Hypothetico-Deductive Reasoning," a term created by Piaget, is used to describe a teenager's ability to think about 'what-if' situations. Metacognition is also a minor characteristic of this stage, and is described as one's ability to understand their own thought processes. In Piaget's Theory, metacognition also includes the aspect of being able to understand the ideas of others, even when they are not in line with one's own thoughts. Finally, the trend of egocentrism and sociocentrism throughout the stages disappears during the Formal Operations stage. Teenagers and young adults begin to understand that others may have ideas that contrast their own, and they recognize that two different perspectives are acceptable. Once these developments have occurred in an individual, they are considered to be fully mentally developed, and are expected to function as mature members of society.

Criticisms of Piaget's Theory

Jean Piaget's Theory of Cognitive Development is a respected and impactful theory which has greatly influenced the ways in which educators and parents alike are able to understand the development of a child's mind, when focusing on environmental experiences and opportunities that are assumed to have occurred. Although Piaget's Theory has been examined and utilized by many to increase the overall understanding of child development, some feel that there are factors that contribute to inaccurate research, including, but not limited to, methods of research that were not viewed as scientific, simplification of each stage, restrictions on ages for each stage, and the lack of consideration for topics such as culture and socioeconomic status.

While Piaget's Theory claims to have incorporated many different experiments in order to test children's thought processes at each age or stage, issues with these experiments have arisen as critics point out that the methods of research might not portray accurate data. It is most prominently pointed out that Piaget utilized only a small population of children and lacked a sufficient control group when performing experiments, which raises many questions and concerns as to how accurate his theory is. Piaget often executed his experiments with his own three children, rather than gathering multiple different groups, and did not take into consideration many outside factors such as cultural, parental, and socioeconomic differences. Because of the extensive variety of different parenting methods, cultural beliefs, and socioeconomic statuses, it is probable that each individual child will develop differently, which leads to many other controversial ideas that were brought up by this theory. At the time that Piaget began to perform experiments which would later lead to the creation of his theory, American psychology was dominated by the idea of logical positivism. However, Piaget continued to experiment based on traditional structuralist methods, utilizing and studying small control groups, as well as following procedures that were not viewed as methodically correct. This ultimately gave reason and validity to those who choose to question the theory.

A new variety of questions has been raised by both researchers and psychologists, as the accuracy of Piaget's stages is continuously challenged. Many have the new understanding that, although the theory of Cognitive Development is applicable for the 'average child,' there are many instances in which stages seem to be overly simplified, and do not provide sufficient descriptions or characteristics for a developing child. For example, various claims have been formed, questioning the accuracy of the timing and stages during which egocentrism is a key characteristic of a child. Some think that children move to sociocentrism much more quickly, while others claim that egocentrism remains as a characteristic of a child through the Formal Operations stage. Through multiple research studies, psychologists have been able to prove that,

as children develop, it is highly possible that they will show characteristics from multiple stages, rather than only one. For example, a child that is entering the Formal Operations stage might possess a strong understanding of logic and have the ability to create hypotheses, while at the same time continuing to struggle with egocentrism, which was most present during the Pre-Operational stage. This research has shown modern society that Piaget's stages are nowhere near as distinct or specific as they were once thought to be.

For each of the four stages of Piaget's Theory of Cognitive Development, a specific range of ages is provided as a basis of understanding for anyone who is studying or attempting to identify child development. While some see these ages as helpful, others see them as overly distinct, and claim that they underestimate the intellectual capabilities of a child. As more recent theories based on mental abilities have been created, researchers have begun to disprove Piaget's belief that children in the Pre-Operational stage (ages 2 to 7) do not yet understand language or proper grammar and speech and center their speaking around egocentric ideas. New information explains that children as young as 4 and 5 are able to understand their own mental processes, as well as those of others, meaning that they are far less egocentric, and much more sociocentric than Piaget had previously believed.

Although many different criticisms and new ideas based on Piaget's Theory have arisen, the theory continues to influence and increase the ways in which we understand child development, informing us of 'what to expect' as children slowly age and mature. However, as the modern world continues to develop, this theory will continue to become decreasingly useful and applicable. As modern technology expands and the human race continues to thrive and change, the development of children will follow suit, shifting away from today's understanding and becoming a completely new idea. Nonetheless, Piaget's Theory and its various criticisms will remain as a solid foundation of understanding of the ways in which the intellectual abilities of a child develop.

Personal Background

Because my Independent Study and Mentorship research has been limited to physically observing only elementary school students, I have been able to examine grade levels ranging from kindergarten to fifth grade, meaning ages 5 to either 10 or 11. While the four stages of Piaget's Theory range from birth through childhood and ending in adolescence or early adulthood, the following comparison will encompass the middle two stages of child development, known as Pre-Operational and Concrete Operational. As described above, the Pre-Operational Stage is characterized by children of the ages 2 to 7, who begin to develop skills in utilizing and recognizing symbols, and possess a very strong and creative imagination. However, these children remain very egocentric, and struggle to understand the thoughts and points of views of others. The stage of Concrete Operations is characterized by children of the ages 7 to 12, who have begun to mature rapidly, and have a greater understanding of time, logical thought processes, and their surrounding environments.

As society develops and technological advancements become more complex and increasingly abundant, the research presented in Piaget's Theory of Cognitive Development slowly becomes less accurate. Through my research studies, I have discovered that, as various new environmental factors are introduced to children at a young age, these children's mental and intellectual development are no longer specifically comparable to the observations described in Piaget's Theory. Because of these new inaccuracies and the various criticisms that were previously mentioned, I began to take the changes into consideration, and created a new resource that will allow any individual to understand the ways in which children develop with the new influence of modern technology and changing cultural values. This resource, a modern comparison of child development to Piaget's Theory, provides characteristics of children from kindergarten through fifth grade. These observations were taken in Frisco, Texas, so the observed groups were typically participants in the middle socioeconomic class. A variety of different cultures are typically present within each school setting, however, the resource does not specifically take each varying culture and cultural belief into consideration. Likewise, various methods of parenting were not specifically observed to influence this resource. Rather, all observations were performed either in an elementary classroom setting, or during 'free time' in an outdoors environment. All observations made were then gathered in order to create each separate analysis, which come together to create the full comparison of Piaget's Theory, specifically the Pre-Operational and Concrete Operational stages, to the child development that we typically see today, considering the constantly changing technology and environmental factors that influence upcoming generations.

Kindergarten

(Ages 5-6)

When young children begin to transition from a preschool to an elementary school setting, it is typical that they will attend kindergarten for one year, most likely around the ages of 4 years and 9 months to the age of six, depending on the child's intellect and capabilities, as well as parental preference. At this age, children are in the midst of Piaget's Pre-Operational stage, which spans from the ages of 2 to 7. Piaget's Theory of Cognitive Development claims that, at this age, children are most often characterized by egocentrism, animism, and symbolism. However, many psychologists have begun to find that Piaget's descriptions and observations are no longer sufficient in providing a strong foundation of understanding of child development. Through extensive research and direct observations of children in kindergarten classroom settings, I was able to determine a variety of characteristics that define the average middle class kindergartner, to provide a stronger understanding of the ways in which these young children can be seen to develop.

At the ages of 5 and 6, children are often still characterized by egocentrism, or the inability to comprehend the idea that others might have a different perspective than one's own thoughts, as described by Piaget. However, researchers have proven that by the age of 4 and 5, many children gain the ability to consider the perspective of others, rather than focusing on only their own ideas. Children at this age also strive to show affection, especially towards teachers and peers, but have a tendency to become very emotional, especially when they begin to think that a teacher might be choosing 'favorites,' or showing attention to any other child. Because they crave attention, kindergarten students are often seen tattling with the intent of getting another child in trouble, as this draws more attention to themselves, because they typically take on the role of a victim.

Children of the ages 5 and 6 are also characterized by their high energy and activity. While they are very open and accepting to any new activity that may arise in a classroom, it is typically very difficult to maintain the attention of a child at this age, because they are so energetic. Because they have so much energy, kindergartners must be moving at almost all times, in some way. However, they are typically expected to sit still in a classroom seat and listen to a teacher for an extended amount of time, resulting in the loss of attention, and ultimately receiving punishment for not being able to sit still and listen to a lesson.

Finally, children at this stage in their life begin to have ideas that slowly become increasingly more defined. Although these ideas are typically derived from those of their parents, they have strong beliefs in their ideas, and will tend to stand up for them. Although Piaget's Theory does describe egocentrism as a characteristic of this stage, it fails to focus on more detailed and in depth qualities, thus causing difficulty when trying to understand these children.

First Grade

(Ages 6-7)

While children in the first grade reflect many of the characteristics that can be seen in kindergarten children, those who are transitioning from the ages of 5 and 6 to 6 and 7 do begin to mature at a more rapid pace. The previously discussed idea of egocentrism is still present, but is not overwhelmingly constant. As many children in the first grade are around the age of 7, they begin to transition from Piaget's Pre-Operational stage into Concrete Operations, ages 7 to 12, which is typically defined by an increased understanding of inductive reasoning skills, reversibility, and conservation. However, these three ideas typically do not provide parents or teachers with sufficient information to better understand children at this age, and only set a small foundation of what characteristics might be encountered during a large time frame.

Children at this age typically continue to seek attention from peers, parents, and teachers, and have a strong desire to perform well so that others might be impressed by them. Because this desire is common among all 6 and 7 year old children, they can often be characterized as being highly competitive. As seen in Kindergarten, First Graders also tend to have a short attention span, and often find themselves being punished for their inability to sit still through an entire lesson, conversation, or seated activity.

During this age, children will attempt to stand up for their own thoughts and opinions, which are typically formed based on what they hear and see from their parents, rather than from original thought, and they often find it very difficult to understand an opposing side of an argument. The ideas that children have at this time in their lives are very black and white, and they struggle to comprehend the concept that others have different perspectives. This is extremely noticeable when dealing with 'right' and 'wrong.' At this stage, the average child has not yet mastered logical thought, but is slowly beginning to understand the various ways in which many different ideas might connect. Because of this, children begin to constantly ask questions. One of the most common questions that might be heard from a child at this age is, 'Why?'. While frequent questions might become difficult for many adolescents and adults, it is important that the child receive an honest, rather than sarcastic, answer, because this is the age in which children will begin to formulate their own ideas. They will learn from active or hands on experiences during this stage, and any answers that they might receive have the potential to become a child's truth.

The most influential individuals during this time in a child's life are parents and teachers. However, many children will begin to work much harder to find new friends and create friend groups. Dramatic moments will most likely happen frequently throughout this process, as 6 and 7 year old children are typically rather moody. Young girls are particularly very moody when compared to boys, and will begin to care slightly more about what others think of them, which was not considered in Piaget's Theory.

Second Grade

(Ages 7-8)

According to Piaget's Theory, once children have reached the second grade, they have completely transitioned from the Pre-Operational stage to Concrete Operations. This means that they begin to mature more rapidly, and undergo a great increase in physical and mental capabilities. There is a much more noticeable shift between first and second graders than there is kindergarteners and first graders, and this was abundantly present through research and observations. The main remaining similarity between these grade levels is the slight continuity of egocentrism, but is almost completely eliminated at this point in a child's life.

Thought processes begin to become much more thorough and logical during this stage in a child's life, as he or she begins to draw connections between a variety of different objects and topics. The idea of reversibility, or the idea that something is able to be changed and then changed back, becomes more understandable at this age as well. Thought processes such as cause and effect begin to come into play at this time, as children can now identify that a specific event might trigger some type of reaction, therefore, that event caused a second event as an effect of the first. While a child's understanding of cause and effect does not fully solidify until later stages, the new emerging comprehension of this idea allows children to better understand sequences of events, leading to their ability to better think through situations, including their own actions. Finally, as the child becomes more intellectually mature, he or she can begin to make influenced decisions that are based on a combination of peer and personal ideas, rather than based on parental beliefs.

Beginning in the previous first grade stage, children began to place more value in creating friendships with members of the same sex. During the second grade, many children will begin to place a sense of security and belonging in these groups, as they become closer to their new friends. These social groups quickly become very close, but drama often follows the creation of new friendships. As children become more involved in school and social groups, they begin to experience an increase in language skills, and learn to exaggerate when telling stories, so that they might receive more attention. Children at this age, especially young girls, develop a love for telling and listening to stories. This characteristic is directly influenced by the increase in attention span that also occurs during this stage.

Finally, the idea of 'fairness' begin to arise, as children typically want everyone and everything to be equal. The development of this characteristic is most obvious in cases dealing with quantity of an item, such as food or drink. All children will insist on receiving an equal amount, and, if someone were to receive slightly more, this would be viewed as 'unfair,' and most likely result in some form of drama or anger. While Piaget's Theory does not directly address these ideas, it does allow a foundation of understanding of increased thought processes at this stage. However, it does not provide information on many other important topics that are necessary when trying to understand modern child development.

Third Grade

(Ages 8-9)

During the third grade, ages 8 to 9, children can be best described as fun loving, energetic, and respectful. Because children are beginning to draw nearer to Formal Operations at this time, their maturity levels continue to increase rapidly, making them much more understandable, easy-going, and friendly. According to Piaget's Theory, children in the third grade are still in Concrete Operations, meaning that they are still focused mainly on continuing to understand thought processes, especially logical thought and deductive reasoning skills. At this age, children are noticeably more mature, and are much easier to interact with, because they have an increased level of understanding when dealing with a wide variety of topics. However, they are still young enough to enjoy almost any activity or topic that is presented to them, making them a very enjoyable age group. These children are also very enthusiastic about their opportunities both inside and outside of school, setting them apart from other grade levels, as they are not so young that they do not understand, but not too old to feel that they are 'too good' or 'too cool' to participate in any activity.

As these children continue to age, the social groups that they began to form during the first grade continue to strengthen and bond even further, often spending an increasing amount of time together outside of school. However, as they begin to draw nearer to puberty, many children, especially females, become very emotional and moody, which places some tension and strain on these friendships. The girls tend to have an increasing amount of drama, and often find themselves having many friend issues. For example, an issue that is constantly seen in social groups at this age is a certain child feeling left out or excluded from a group of friends. Despite the recurring incidents and small tiffs that might occur between friends during the third grade, most students are able to overlook these arguments or disagreements, and continue to interact with the same group of friends throughout the remainder of their time in elementary school. While young girls tend to have an abundance of drama both inside and outside the classroom, as well as in their social groups, young boys typically avoid this type of drama, and are rather seen to be very energetic during this stage, but remain respectful to their parents and teachers.

Finally, third graders begin to form a basic idea of ethics during this time in their lives, and are able to recognize their own behavior patterns, as well as the behavior of others. They are typically able to tell the difference between right and wrong, and might even criticize their own behaviors if they recognize that they are acting poorly. If children are behaving properly at this stage, however, they typically expect an immediate reaction or reward for said behavior, so that they are able to feel appreciated and recognized. As children continue to move through elementary school, they continuously mature and begin to near adolescence.

Fourth Grade

(Ages 9-10)

By the time children reach the fourth grade, ages 9 and 10, they typically begin to wonder about independence, and think that they are capable of making well informed decisions on their own, without the influence of others. Children continue to remain in Piaget's stage of Concrete Operations, which continues until the age of 11 or 12, and is characterized by development of logical thought processes, and ideas such as conservation and reversibility, all of which were previously explained. During this stage in a child's life, he or she will begin to move completely away from egocentrism, shifting towards sociocentrism, which focuses less on one's self and more on the social groups that an individual is associated with. Social groups that persisted from first through third grade typically still remain, and children in the fourth grade might begin to form different types of clubs. These clubs might even have their own 'secret language' or handshake that each member must learn in order to be included. However, these clubs and social groups have a tendency to feel very exclusive, which often results in drama and arguments between children at this stage. Because many children in the fourth grade continue to focus on the idea of fairness, many of these clubs might also be seen as 'unfair,' and feelings can be easily hurt.

In classroom settings, children in the fourth grade are often very different from those who are in the third grade, greatly because fourth graders begin to feel that they are 'too cool' or too old to participate in any activities that might have once been viewed as fun and engaging. Many teachers find it difficult to have children participate in group activities, which often becomes frustrating, and could result in counterproductive student-teacher relationships. However, at this age, the behaviors of children tend to become much more dependent on gender. Based on observations, fourth grade girls typically want to excel in many activities so that they are able to impress the teacher and receive more attention. Young boys, however, are very rambunctious and seem to fight with each other to gain the attention of a teacher or even another classmate. While these fights do not become physically violent, they do get very loud and energetic quickly. Although full class participation in some activities is very difficult to come across at this stage, children in the fourth grade can be considered concrete thinkers who are able to understand language and many concepts that require more thinking and comprehension skills, though certain logical thinking skills still present themselves as a challenge.

Despite any difficulties that a child might come across, fourth graders commonly strive for perfection so that they might be able please a teacher, parent, or peer, and draw more attention to themselves. While Piaget's Theory does mention the increasing understanding of concepts such as thought processes, it does not provide insight explaining many emotional characteristics, and does not take into consideration the impacts that a changing society has had on child development as a whole.

Fifth Grade

(Ages 10-11)

As elementary children enter the final grade of elementary school at ages 10 and 11, their newfound maturity is evident through the ways that they communicate, think, and interact. During this stage in a child's life, they are nearing the end of the Concrete Operational stage, and begin to transition into Formal Operations, which ranges from 11 or 12 years old through adolescence and into adulthood. Piaget describes this stage with characteristics such as an understanding of both inductive and deductive reasoning, as well as the development of problem solving skills and abstract thoughts. However, these characteristics only describe a small portion of the mental and emotional development that children during this stage go through.

Similar to the previous fourth grade stage, children in the fifth grade are very sociocentric, and rely on social groups to support them, as well as to shape the way that they think of themselves. Children begin to rely less on feedback from teachers and parents, and put much more value in the opinions of peers and members of their specific social groups. In present day, this type of development can be seen to remain through high school, and, in some situations, even through college. During the fifth grade, children continue to spend ample amount of time with their previously formed social groups, but begin to socialize with the opposite sex. However, they continue to have the closest bonds and relationships with members of the same sex, because they can most easily relate to them. Drama that might have been seen in earlier stages continues to remain in social groups, and might seem to worsen slightly as young girls especially prepare for the stressful transition into middle school. It is during this stage that many friends are seen having larger and longer fights, which create tensions in relationships, and threaten to ultimately end them.

Finally, logical thought processes begin to solidify completely during this stage, as children who are 10 and 11 years old have, at this point in their lives, had many opportunities and scenarios presented to them in which it would be necessary to employ these thought processes. Fifth graders still utilize their imagination and incorporate it into many aspects of their lives, but are also able to recognize when 'enough is enough,' and begin to think realistically. They will begin to recognize and narrow down their own interests, so that they may participate in activities that they enjoy, and choose to be in themselves, rather than participating in any activities that their parents placed them in. Children are able to formulate abstract ideas, which help to prepare them for their future in middle school and adolescence, as abstract and more difficult thought processes are necessary to function in society.

Although Piaget's Theory does address the increase in child's ability to understand abstract ideas, as well as the improvement of use of logical thought processes, it does not sufficiently explain other factors such as friend and social group issues, personal thoughts about one's self, and any other wide variety of factors that have been heavily influenced by today's modern, constantly changing society.

References

- Cherry, Kendra. "Support and Criticism of Piaget's Stage Theory." *Verywell*, 27 Apr. 2016, www.verywell.com/support-and-criticism-of-piagets-stage-theory-2795460. Accessed 16 May 2017.
- Cherry, Kendra. "Sensorimotor Stage of Cognitive Development." *Verywell*, 8 Sept. 2016, www.verywell.com/sensorimotor-stage-of-cognitive-development-2795462. Accessed 16 May 2017.
- Cherry, Kendra. "Preoperational Stage of Cognitive Development." *Verywell*, 21 June 2016, www.verywell.com/preoperational-stage-of-cognitive-development-2795461. Accessed 16 May 2017.
- Cherry, Kendra. "Concrete Operational Stage of Cognitive Development." *Verywell*, 20 June 2016, www.verywell.com/concrete-operational-stage-of-cognitive-development-2795458. Accessed 16 May 2017.
- Cherry, Kendra. "The Formal Operational Stage of Cognitive Development." *Verywell*, 15 July 2016, www.verywell.com/formal-operational-stage-of-cognitive-development-2795459. Accessed 16 May 2017.
- Edwards, Leila, et al. "Mental Development and Education." *Stages of Development*, ehlt.flinders.edu.au/education/DLiT/2000/Piaget/stages.htm. Accessed 16 May 2017.
- Edwards, Leila, et al. "Criticisms of Piaget's Theory." *Mental Development and Education - Criticisms*, ehlt.flinders.edu.au/education/DLiT/2000/Piaget/critics.htm#critics2. Accessed 18 May 2017.
- Sternberg, Robert J. "Log In." *Britannica School*, school.eb.com/levels/high/article/human-intelligence/106318#13351.toc. Accessed 16 May 2017.