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Developmental Psychology

Educational Psychology

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**What have you learned in regards to the history of educational psychology that you did not know?**

#### Educational psychology is a very interesting field that is relevant and applicable to anyone studying psychology. Since psychology is a scientific study of the human thinking process and behavioral attitude, educational psychology much be included since learning, memory, teaching, learning, and human cognition are integral to our growth and development.

#### While educational psychology was a field of study that caught the attention of many centuries before. In the late nineteenth and early twentieth century, educational psychology took prominence. The golden years of educational psychology are considered between 1840 and 1920 Educational psychology was built on the work and contribution of several pioneers. William James, John Dewey, the second major figure in the field of educational psychology, and E. L. Thorndike. But Johann Herbart is considered the founding father of educational psychology.

#### There are several aspects of educational psychology that I did not know of. Most of these self-discoveries have to do with the individual contribution of the pioneers in the feel of educational psychology.

#### E. L. Thorndike is the third in line to have contributed to the growth and expansion of educational psychology. His contribution was narrow but profound in concept. He endorsed scientific reinforcements of learning as it relates specifically to assessment and measurement. He mastered the scientific study of teaching and learning. His first underpinnings are that school should provide the tools to improve a child’s reasoning to effective levels.

#### The second significant pioneer of educational psychology is John Dewey. He was the fuel behind the practicality of educational psychology Dewey had a laboratory was used to advance the practical nature of educational psychology. Through this practical approach, a few groundbreaking concepts were birthed

#### Children are active learners; they learn best by doing and being active participants. Contrary to the belief before Dewey that children were passive or learn better in tranquility.

#### Children should learn to be reflective problem solvers. The education of children should be holistic rather than confined to specific aspects of education. Giving children a broader scope of education at an earlier stage gives children a worldview that empowers them to think on a wider spectrum. This is so applicable, especially in the 21st century where globalization and technology have brought the world together in culture, education, and ways of life. National views are no longer determined from within but by world events, thinking, and planning. Hence children need to broad scope and views to make sound decisions to be relevant to the progress of the global lifestyle.

#### Competence education is deserving to all children without discrimination and bias based on economics, social interplay, and gender realities.

#### The father of educational psychology is Johann Herbart has made a significant contribution to educational psychology that I had no knowledge of but enjoyed in my time in a learning institution

#### There is five sterling contribution that was built on in educational psychology. For Johann Herbart education- learning is motivated by two interests. Interest in the teacher and interest in the subject. I have noted children, even myself been affected by my interest in a given subject and the teacher. Teachers can become a stumbling block to learners based on the learner’s perception of them. Teachers that are hostile, impatient, lack affection and compassion can prevent children from liking the learning process.

#### In addition to this child in Guyana, my country does poorly in Mathematics because they dislike Mathematics. The pass rate for Mathematics is 65% compared to Social Studies, Caribbean History which sees a pass rate of 89%. According to Johann Herbart children do well in subjects that they are interested in.

#### Another unknown fundamental contribution to educational psychology by Johann Herbart is the five-step learning process which are

#### Children’s previous educational materials and processes must be taken into consideration and reviewed before more information or learning takes place.

#### Prepare children for education and learning by making them aware of the future materials, objectives, and the structure that will be employed. This will open a child’s mind to learn in context and be prepared mentally.

#### Presentation of new materials to the child

#### The contextual and applicability of the new and old materials that were presented to children from the teacher’s standpoint.

#### Show students and see how they can apply the knowledge from both old and new materials.

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#### What is Educational Psychology?

#### Educational psychology began to take formation in the late nineteenth century. While psychology takes into account the studies of human thinking and behavior in both applied and theoretical dimensions. Educational psychology is the branch of general psychology that specializes in understanding, teaching, learning in educational settings. Educational psychology is a vast field of study that will take into account how humans teach and learn.

#### This branch of psychology is scientific in nature that uncovers the underpinnings of learning. both cognitive and behavioral. The difference in intelligence, cognitive development, motivation and self-regulation, self-concept and effect, and personality. Education relies profoundly on qualitative methods, such as testing and measurement. Thus, continues to enhance educational activities related to institutional design, educational technologies, classroom management and special curriculums development, and assessment that facilitate the learning process across the lifespan.

#### There’s a vast field that education psychology takes into the direct study of this field. Educational psychologists or psychology approach this field and look into details of various aspects in order to uncover a comprehensive understanding of learning and teaching. This is achieved through five perspectives.

#### The behavioral perspective suggests our behavior is influenced by conditioning both classical and operant conditioning to explain how learning takes place. Students are offered incentives and at times punishment by teachers which help to create the learning environment for students to learn. Classical condition is not altogether the best behavioral approach to learning

#### The developmental perspective, this approach to educational psychology offers an insight into how students acquire new skills and knowledge as they develop. As educational psychologists or teachers understand how students think at different stages of development a greater understanding is acquired of children’s capability at each point of growth. This perspective gives educators the tools and insight to create institutional methods and materials best suited to children with various learning processes. Welsh J. A, (2010).

#### The cognitive perspective approaches educational psychology from a position of understanding as to how memories, belief, emotions, and motivation contributes to learning as a result of their motivation and not as a result of external factors. Cognitive psychology can be easily misunderstood and seen as educational psychology. Cognitive psychology aims and deals with understanding how people think and learn, remember and process information. A few similarities and overlapping aspects with educational psychology. Roediger HL III. (2013)

#### The experimental perspective highlights an individualized life experience that influences how they understand new information. It takes into consideration the experience, thoughts, and feelings of the learner. The approach allows the individual student to find personal meaning in what they learn rather than feeling that the information is not applicable. Binson B, & Lev-Wiesel R. (2018)

#### This is similar to the constructivist approach that focuses on how we actively construct our knowledge of the world. This approach is more about social and cultural influence and its impact to learning. What a person knows is already a major influence on how they learn new information. This means new knowledge can only be added to an understanding in terms of existing knowledge. Dennick R. (2016).

#### What is condition and learning ?

#### Conditioning in behavioral psychology theory that is mainly associated with the reaction ("response") to an object or event ("stimulus") by a person or animal can be modified by 'learning', or conditioning. This approach is mainly used in education for learning enhancement, and correction of behavioral practices that are undesirable. Students are conditioned through stimuli by the teacher.

#### This is a very interesting interplay between the students and teachers since interest in a subject and teacher are two vital factors to learning. Sometimes the best conditioning can be students interested in an educational subject and the likableness of the teacher. On the other hand, some student needs motivation which can be in the form of conditioning. This offers rewards or punishment to the students by the teacher to learn. Threatening students with punishment to learn can be counterproductive most of the time. I recall my experience as someone who is affected by dyslexia. My kindergarten teacher would administer a severe beating to learn until I lost focus on reading and spelling and focus on the lashes I would receive if I am wrong.

#### There are two types of conditioning

#### Classical conditioning

#### Classical conditioning is a type of unconscious or automatic learning. Classical conditioning is a learning process in which an association is made between a previously neutral stimulus and a stimulus that naturally evokes a response. This learning process creates a conditioned response through associations between an unconditioned stimulus and a neutral stimulus. Put another way, classical conditioning involves placing a neutral stimulus before a naturally occurring reflex. This behavioral approach to conditioning assumes that all learning occurs through interactions with the environment and that environment shapes behavior.

In order to understand more about how classical conditioning works, it is important to become familiar with the basic principles of the process. Classical conditioning involves forming an association between two stimuli, resulting in a learned response. Rouleau N**.,** **&** Karbowski L**.**M**.,** (2016).

#### There are three basic phases of this process. Before, during, and after conditioning. For example, in a school setting, if a student is beaten to spell at school, they may learn to associate the school with fear. It could also explain why some students show a particular dislike of certain subjects that continue throughout their academic careers. This could happen if a student is humiliated or punished in class by a teacher.

#### Conditional conditioning uses different terms to help explain the process. There is an unconditional stimulus where a trigger leads to an automatic response. A neutral stimulus does not trigger an initial response of its own. A response takes a much longer time to generate a response. However, in a learning setting a condition response is a learned response or a response that is created where no response exists before.

#### Operant Conditioning, sometimes referred to as instrumental conditioning, is a method of learning that employs rewards and punishments for behavior. Through operant conditioning, an association is made between a behavior and a consequence (whether negative or positive) for that behavior. Operant Conditioning plays a powerful role in everyday learning. Reinforcement and punishment take place in natural settings all the time, as well as in more structured settings such as classrooms or therapy sessions. Operant conditioning relies on a fairly simple premise: Actions that are followed by reinforcement will be strengthened and more likely to occur again in the future. If you focus during class and get your questions right your teacher will praise you and you will gain the admiration of your fellow students. This will serve as an incentive in conditioning you to focus always and more often to acquire more praises from your teacher and fellow students. If this is cut out. Students are sometimes less likely to be the focus again., you will probably be more likely to tell that story again in the future. This is the interplay of positive reinforcement and positive punishment versus negative reinforcement and negative punishment.

#### Learning

#### Learning is relative and permanent in characteristics, it results in a change of behavior and thinking as a result of experience. Learning focuses on a range of aspects of human growth and development throughout one’s lifespan, it’s how people learn and interact with their environment. John B. Watson suggests that behaviors are a result of the learning process of internal thought, memories, and other mental processes. Not forgetting what we discuss above that for those learning is the bias or personal preference that learning is enhanced by interest in the topic and the teacher.

#### Learning is the rest of three main pillars; we would have discussed two of them under conditioning. Classical conditioning, Operant Conditioning, and observational learning. Observational learning is a process in which learning occurs through observing and imitating others. Albert Bandura's social learning theory suggests that in addition to learning through conditioning, people also learn through observing and imitating the actions of others. Throughout the human lifespan, learning is done by observation. It’s more than less active learning. When children and even adults observe what is done and said, and while observation is experienced learners are learning to do what is said or done through the interplay of the internal learning process.

#### (A)What is active learning and how is it related to educational psychology?

#### Active learning requires teachers to adapt and change their thinking and behavior to suit how students Its known that children are not passive learners but active learners. The learning process should have an environment that fosters active learning. Active learning is asking questions, investigating, creating, comparing and analyzing, discussing, Numerous studies have shown lecturing is an ineffective method of teaching. Wieman (2014) because it is not based on the best and most effective teaching process.

#### Active learning requires the teacher to scaffold students by providing activities that are challenging but not overwhelming. Students do not have one means of learning but serval and these processes should be taken into consideration and incorporated in the learning process. Audible, visual, and kinesics. The involvement of all five senses takes the student’s attention and stirs excitement which produces an interest in the subject and the teacher. Felder, R. M., & Brent, R. (2009).

#### There are several exercises that can be used that have been researched and proven. They are one-minute papers. Muddiest Point. Affective responses Daily Journal, Clarification Pauses Teacher-centered demonstration. Quiz, fishbowl, think pair share, etc.

#### Active learning is a core fundamental to educational psychology since educational psychology is the scientific study of human development to understand individual learning and inform the instructional process. While interaction with teachers and students in school settings is an important part of educational psychology, it isn’t the only facet of the job. Learning is a lifelong endeavor. People don’t only learn at school, they learn at work, in social situations, and even doing simple tasks like household chores or running errands. Working in this subfield of educational psychology such as learning examines how people learn in a variety of settings to identify approaches and strategies to make learning more effective. Thus, active learning is commonly defined as activities that students do to construct knowledge and understanding. The activities vary but require students to do higher-order thinking. Although not always explicitly noted, metacognition—students’ thinking about their own learning—is an important element, providing the link between activity and learning (APA, 2014)

#### (B) Should it relate to Human humans learning?

#### Humans are the only living creatures with the ability to think, reason, interact with a definitive language, and make sound decisions based on learning and interaction. Educational psychology is not applicable to any other aspects of creature learning other than humans. Animals can be conditioned just like humans. Classical and operant conditioning can work on animals as humans. The purpose can be to bring about changes. However, its only observational learning and all the aspects of active learning are applicable to humans exclusively, because of reasoning ability and freedom of choice.

#### What is Bloom’s Taxonomy and how does it relate to educational psychology?

#### In keeping in the context of educational psychology and learning, taxonomy is a model of learning at the right level. Taxonomy was developed in 1956 by educational psychologist Benjamin Bloom. It was later revised in 2001 revision comprised a group of psychologists and educational experts. The revision retains the focus of Taxonomy, which is cognitive domain but revised the different types of knowledge .and remains an influential way of explaining how learning works.

#### Bloom’s Taxonomy divides educational objectives into three major parts. Cognitive, affective, and psychomotor. Bloom Taxonomy’s objective is to influence teachers to focus on all three parts mentioned above to create a comprehensive form of education.

#### Cognitive in the context of Bloom Taxonomy revolve around three main aspects, critical thinking skills, knowledge, and comprehension skills as it relates to education – learning and teaching. Knowledge should be applicable and relevant to problem-solving. Knowledge should be solving problems. This requires the accurate dissemination of information and the still that is required to use this knowledge correctly by students.

#### Affective in, Bloom Taxonomy is a unique dynamic that takes into consideration our emotional responsiveness and empathy of our environment. Affective objectives typically target the awareness and growth in attitudes, emotions, and feelings. There is a pyramid that symbolized our progression in affective. Receiving is the passive attention we give without being active participants or focusing. This leads to the next level of responding. The student is an active participant and involved in an interesting way in what is taught by the teacher. It’s as if there is an interplay of stimuli and conditioning processes. Valuing is the move from responding to placing a value of what is given by the teacher. For example, behavior modification helps to understand psychological challenges and apply proven skills and systems in helping people to overcome personality disorders. This is vital information and a value is placed on it. Because of the interest of the student.

#### Organizing, how does all this information is organized mentally and physically? The organization is vital to memory and is dependent on the learner’s ability to use a schema that is effective for him or her. Characterizing, knowledge change thinking and behavior. The first change that knowledge brings is to the student. After internalization, it changes values and beliefs. Education becomes the new character living in the learner.

#### Bloom Taxonomy is vital to educational psychology. Under the revised in 2001, Bloom’s Taxonomy established four new key areas of knowledge that are intertwined with educational psychology. It embodies learning, knowledge, and the external factors that enable learning.

#### Factual – this relates to information that provides the building blocks for learning and the teaching techniques. This aspect of Bloom’s Taxonomy relates to knowledge that makes a good first impression such as appropriate clothing, punctuality, body language, mannerism, etc.

#### Conceptual which deals with categories, structure, and theories of teaching and learning. Conceptual knowledge involves understanding the typical features of a competency-based interview question as well as theories behind this approach.

#### Procedural relates to the use of specific techniques and methods that are appropriate to learning and teaching. This critical aspect to Bloom’s Taxonomy is metacognitive in strategy decision, self-knowledge, and thinking.

#### What is constructionist learning?

#### Constructivism is based on experimental learning or active learning. The central idea is that as humans our learning is constructed on our understanding of knowledge in the context of our interaction of knowledge and experience. Building new knowledge on previous knowledge. This prior knowledge influences what new or modified knowledge as an individual will construct from new experience. (Phillips 1995)

#### The notion that has been proven is that learning is active and not passive. Passive views of teaching views learners as empty vessels to be field. This is far from the truth, constructivism and learning state that learners construct meaning only through active learning, active engagement, and the interplay of interest of the topic, teacher. And the community, speaks of practical experiments and experience in understanding and problem-solving real-world problems. Information may be passively received, but understanding cannot be, for it must come from making meaningful connections between prior knowledge, new knowledge, and the processes involved in learning.

#### Learning under constructionism is a social activity. It’s something we do together, interact with each other rather than an abstract concept ( Dewey, 1938). Constructionism holds that learning can happen most effectively when people are also active in making tangible objects in the real world. The community plays a central part in the process of making meaning. The environment in which children f\grown up will influence how they think and what they think about. Education, learning must be a matter of constructionism where all teaching and learning is a matter of sharing and negotiating socially constitute knowledge.

#### The constructivist theory posits that knowledge can only exist within the human mind and that it does not have to match any real-world reality (Driscoll, 2000). Learners will be constantly trying to develop their own individual mental model of the real world from their perceptions of that world. As they perceive each new experience, learners will continually update their own mental models to reflect the new information, and will, therefore, construct their own interpretation of reality. For example, in this digital age, children at an early age are becoming very effective and affluent in technology. At early as age 3 children can use various features on a tablet or smartphone. These devices provide young learners with interactive activities that promote learning

#### According to Jean Piaget, the originator of constructivism, learners articulated mechanisms by which knowledge is internalized by learners. He suggested that through processes of accommodation and assimilation, individuals construct new knowledge from their experiences. This is quite conclusive as we look at the fast rate young learners perform in classrooms that have technologies and enhanced activities. Lost of children doing this pandemic of COVID-19 found online learning quite easy and accommodating. They interacted and found a way to build and form their own knowledge based on interaction.

#### What is discovery learning how does it relate to educational psychology?

#### John Dewey famously wrote that students should have centered learning education, in his book, The Child and The Curriculum. Children need a chance to explore experience and connect the information in order to truly understand and internalize abstract principles. Efforts should not be don’t to make the teaching content interesting but it should be constructed with an interesting quality to continue to match young learners’ interests. This approach will avoid apathy. Discovery learning takes place in problem-solving situations where the learner draws on his own experience and prior knowledge and is a method of instruction through which students interact with their environment by exploring and manipulating objects, wrestling with questions and controversies or performing experiments.

#### One of the most used versions of student-centered learning is the Discovery Learning Method. The Discovery learning method is an active, hands-on style of learning, originated by Jerome Bruner. Bruner emphasizes that we should be learning by doing. Discovery learning offers students an active participating environment rather than a passive environment of learning. Teachers are proactive and are dread to meet the learner’s interest with an agender of having the learner build and build bridges of previous and present discovery learning which makes them effective and relevant in understanding the environment in which they are learning.

#### There are some similarities between active learning and discovery learning. The terminology and a few minor factors differentiate the two concepts. Under discovery learning also learners are allowed to explore, manipulate, objects, wrestle with questions and controversy or perform an experiment. Learners under educational psychology using discovery learning are encouraged to think, ask questions, hypothesize, speculate, cooperate and collaborate with others, Discovery learning fosters self-confidence and builds self-esteem, and produces a stable self-image. which is critical for problem-solving. And a comfortable learning environment. Discovery learning takes into consideration that all learners have some background knowledge that they may be able to apply to the current subject at hand. (APA, 2014).

#### To effectively use the Discovery Learning method in a classroom, a teacher needs to not only be flexible, but also well-prepared, organized, and have an understanding of how what is discovered in class is educationally valuable and can lead to further investigations for the student. Teachers need to be able to help young children, who are already curious about the world around them, learn how to ask questions that will help them understand their surroundings. (Kluge, A. 2011).

#### Teachers also have to know where their student is developmentally and how that will play in a role in a child finding success in a lesson. This may sound like a lofty goal, but most educators have to take classes in developmental psychology that are specifically geared to the age with which they want to work. Additionally, teachers using the Discovery Learning method cannot wait until the end of the activity to access a child. Instead, they interact with students to see what the student is doing, what kind of questions are being asked, and help them apply any new skills that may be necessary to solve problems and draw conclusions. The teacher must also recognize that there is more than one way to get to an end goal. McCarthy, C. B. (2005

#### The Discovery Learning method is a great choice for ESL students, as well as students with behavioral or developmental problems. The student who can’t sit still in class will have a chance to actively take part in the learning process. The student whose first language is not English will be exploring ideas instead of being told what to think and possibly not understanding the concept because of a language barrier. When the Discovery Learning method is used, students are on task more often because they are actively part of the learning process instead of just being spectators. Bruner, J. S. (1961).

#### There are shortcomings to discovery learning. In pure discovery learning, the learner is required to discover new content through conducting investigations or carrying out procedures while receiving little, if any, assistance. Ausubel, D.P. (1964). Because students are left to self-discovery of topics, researchers worry that learning taking place may have errors, misconceptions, or be confusing or frustrating to the learner Andrews, J.D.W. (1984). under some circumstances constructivist-based approaches may be beneficial, pure discovery learning lacks structure in nature and hence will not be beneficial for the learner. Mayer, R. E. (2003).

#### How does an individual learn?

#### Human learning can be acquired from three major standpoints. Classical conditioning, operant conditioning, and observational learning. These concepts are fully outlined and defined above.

#### While these are three broad classifications, within this concept is the part learners play and teachers.

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