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Children's Memory and Learning Process

Introduction

Every child has some inborn talents, drives, skills and tendencies that are regulated while growing up in a particular culture [1]. An individual constantly gains new experience that leads to their adaptation in particular society and culture [10]. Learning can be described as a relatively permanent change in the way an individual responds based on its experience [7].

Child's Learning Process

Children, in the early stage of development, when trying new things and learning, do not think in advance about the way a particular task, move or action has to be done, but they "go for it" – this is the trial and error approach. Many trials finally lead to the solution of a problem. With time, the child's intelligence develops and they are able to understand the situation, they can solve problems without many chaotic trials. Older children can plan and work following that plan, because they understand the mechanisms of various phenomena. Skills and knowledge gained in the process of solving the problem can be used in the similar problematic situation in the future.

Another important way of gaining knowledge and skills is learning through imitation. In a certain stage of children's development, an evident tendency to imitate actions that children see can be noticed. There are different activities that a child can imitate in different development stages. Three-months-old baby smiles when seeing a smile on the adult's face. Seven-months-old baby can copy an adult who taps their hand on the table. Children can imitate vocational activities of adults, like playing doctor or teacher. At first learning through imitation is unintentional, but with time it becomes a deliberate means of gaining knowledge and skills. A child wants to perform particular actions, because they see them as useful and valuable.

An important element in the process of learning is memory. There is literal memorizing (e.g. memorizing a poem) or nonliteral memorizing (e.g. memorizing a story line). First type can be described as mechanic memory and the second type is an associative memory [2].

Learning can be defined as enduring change in behaviour that occurs through gaining experience. Representatives of the learning theories state that the external, environmental factors determine social development of an individual. Learning theories do not reject the function of maturation in the development process, but suggest that the influence of environment plays a great role in describing behavioural changes. There are some similarities among people and when treated by the comparable environmental factors, people can develop in a certain way and become alike adults (can develop some alike features) [8].

According to Przetacznik-Gierowska, learning is the process of creating, processing and consolidating activities (based on individual experience) that are gained through the environmental influence and personal activity and therefore through performing and repeating activities [10].

Learning is the process of consolidation the personal experience of an individual that leads to changes in one's behaviour. Personal experience is a determinant of learning and changes in behaviour are its indicators [3]. Children learn through play, because play is their main activity [6, 7, 11]. Different types of play can be noticed as a child grows up and develops. Development of play is connected with social, cognitive and symbolic development [11].

Memory and Learning Process

Learning can occur due to memory, where all the reactions, feelings, experience are stored. There are momentary, relatively permanent and permanent memory processes. Memory plays a crucial role in the man's life and activity. Memory allows a child to acquire knowledge, skills, habits, words and their meaning as well as to learn to talk and think. Memory enables intellectual development. It plays a crucial role in the learning process. The connection between memory and the process of learning is an important element of research in psychology. Learning and memory are related to the development of many other psychological functions of a child. A significant factor is motivation that determines the selection of stimuli. This selection is important in the process of spotting and memorizing chosen content [13].

Memory is sometimes defined as psychological feature that allows an individual to shape and function their experience. Due to this function we are able to assimilate knowledge, acquire skills that are used during the whole life [10].

The distinction between so called "direct" and "postponed" memory has important practical appliance. Direct memory manifests in immediate reconstruction of presented information while postponed memory is the ability to reconstruct learning material after some time [9].

An interesting issue related to memory is a phenomenon of erased memories from the first years of child's life. A child and later an adult recalls only loose, stray scenes or images of early childhood. Episodic memory has a great impact on shaping an individual's identity. The process of memorizing consists of three stages:

remembering, storage and recalling. The most important memory features are: permanence, fidelity and readiness to fast remembering [10].

Operational and long-term memory plays a great role in shaping children's experiences. In the first years of children's life memory has unintentional character, just like imagination and attention. Children do not set themselves a special task to remember certain information. Remembering is not a purpose of their actions, but it is weaved in a variety of children's activities.

In the second stage of pre-school age the beginnings of explicit (intentional) memory appear. It manifests itself in intentional approach when a child remembers certain information. It is the most frequent form of memory used at school. It is used in educational plays as well as in recalling tasks or instructions.

There are also logical and mechanical types of memory. In the past there was a belief in psychology that children mostly use mechanical memory. It appears that young children are better at remembering material where contents are logically connected than that without much sense or logic. The capability of remembering also depends on a child's approach as well as on the type of information and the level of understanding this content. Gradual development of child's logical memory can be noticed with age. Children use mostly mechanical memory when remembering content until they develop remembering and recalling strategies. A characteristic feature of younger children is reminiscence – the content is reconstructed in more details after some time. Long-term memory is the base for behaviour modifications that can be understood as learning [10].

Learning can be an intentional or unintentional process. Younger children learn unintentionally, but stimulating children's development is an organized process based on their spontaneous play and activity (discovering the surrounding world).

Memory and learning are closely connected with each other. These are two elements of the same process – gaining experience, knowledge and skills. There are some stages in the learning process. The first stage is familiarizing with the learning material, called reception.

There could be an active and passive reception of learning material. Passive reception takes place when people assimilate information unintentionally. Active reception, on the other hand, occurs when individuals seek needed information. Range and reception of information depends on many environmental as well as personality factors [10].

Verbalization is an active and intentional expression of observed stimuli in words. It is including words and speech into the perception of content. The function of verbalization increases with age. Perceived content can be named and distinguished from other content, and this results in quicker and easier assimilation.

Reception depends on many elements. Among others, there are: previous experience, approach towards learning material, attitude, suggestions of other people, and even a system of values of an individual [12]. Repetition is an important factor in the process of remembering. Children, in order to learn and consolidate

new skills, have to perform actions many times [12]. Another significant aspect of learning is positive reinforcement [7]. Positive reinforcers can include:

1. Reinforcement through expressing approval (praise, award, distinction etc.) – it aims to stimulate positive feelings, emotions that support cognitive activity;
2. Reinforcement through final effect of performed activity (satisfaction);
3. Reinforcement through new, unexpected object features the child plays with (uses in their activity). This element of cognitive activity can be named “self-reinforcement” [5].

Development of perception processes suggests that perceiving which involves many senses is an opportunity to explore and to get to know objects from many perspectives. This method supports effective learning and should be used especially while working with pre-school and first classes of primary school children. It's important to create educational situations where children can have a direct contact with objects and where many senses can be engaged in the process of learning. Younger children react mostly to graphic content and with time the teacher introduces them to word content. Word content plays greater role in teaching older children.

Conclusion

Learning process and memory are closely tied together. Successful learning depends on many environmental and personal factors. Important elements of learning process include: information reception, processing and coding, as well as information storage abilities. Knowledge of these processes can help teachers in better organizing educational situations that would support successful learning.

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Abstract

Children have different innate abilities, tendencies and drives that are used when gaining new experiences and learning about the surrounding world. Learning leads to the behaviour changes. Experiences of the individual condition their learning. Intelligence, memory, structure and organization of information are important elements that help gain new knowledge and skills. Successful learning also depends on psychophysical conditions of an individual.

Key words: education, learning, memory, child

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