67 - LIVING AND LEARNING

GILDASIO JOSE DOS SANTOS[1];
CASSIO HARTMANN[2]
1-PROFESSOR DA REDE ESTADUAL DE ENSINO DO ESTADO DO PARANÁ E DELEGADO DA FEDERAÇÃO INTERNACIONAL DE EDUCAÇÃO FÍSICA/FIEP/BRASIL
2-DOCENTEDO INSTITUTO FEDERAL DE ALAGOAS/BRASIL E GRUPO DE ERGONOMIA E GINÁSTICA LABORAL/GERGILA
gildasiofiep@gmail.com

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INTRODUCTION

One of the great challenges of education today is to overcome the difficulties of learning, which are the start of other major problems that are dropout and repetition. By focusing on learning disabilities are not intended to exhaust the subject which is actually ample and full social implications, bad highlight some points that help to understand the problem. On the other hand look for some clues on the latest proposals pointing to solving these problems in other chapters. In the first chapter we will psychopedagogic some highlights. Children's behavior has origins in the context in which they live. These behaviors may be disapproved or reinforced. The contributions of Piaget and Vygotsky are important because they reinforce the assumption that it is the interaction with the environment that surrounds that person builds themselves and their own learning. Before signing the teacher needs to understand the child's world and respects - it.

The issue of learning disabilities is debated worldwide. Here in Brazil and throughout Latin America has gained alarming proportions. We looked at first seek help in the propositions of psychology and educational psychology to understand child development. Was subsequently placed the problem of learning disabilities. First try to dispel the myth that children have difficulties because they have mental disabilities, ie, all psychological problems - social are ignored. We know that problems resulting from family, interfere decisively in learning. The vast majority of Brazilian families who have children in public schools do not participate in the school life of your child or the school itself. The economic question must be considered, however, this happens also because it needs a more effective school program. All these factors interfere with school performance and subsequently generate evasion and repetition such as: poor diet, problems inherited from the parent management etc. Placed these considerations wonder what to do? Which path or paths to solve such problems? The school needs your practice. The new millennium points to a new teaching skills. Prepare the student to learn how to learn. Building skills is much more to assimilate knowledge. You know the face and solve problems creatively. For this it is necessary to make the new teacher profile. Abandon old habits and take on new positions. Work with projects. Flexible schedules.

Evaluating participatory and formative, removing the student what he knows, and not punishing - for what it does not know. The new pedagogical approach to student returns the pleasure and the joy of learning and contributes decisively to solve the problem of learning difficulties and prepare the individual for life. Discuss the nature of learning, especially the guiding principles of the behavior of the organism, which in many cases are confused with the concept of living beings. Are concepts, principles, rules or laws that are present in living organisms that are determinant in the behavior in its social context. We will also see the history of our ideas about the mind, brain and memory storage and learning.

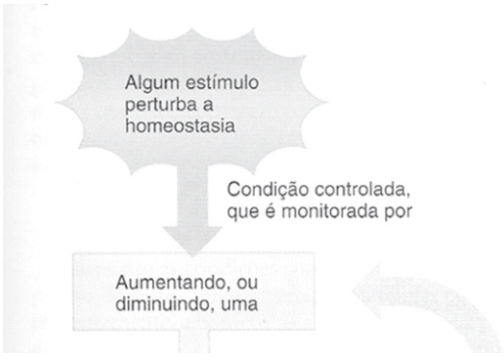
Living eings, Homeostasis and Learning

Darwin (1858) in his book "The Origin of Species" emphasizes the importance of fighting her survival and perpetuation as the main characters that constitute life, all living organisms are constantly strive to survive and leave larger number of possible copies of their genes in future generations. While continuing this process, human beings are not excluded latter life goal. Philosophers of all time highlighted this balance as a constituent aspect of life: Aristotle presents in their analysis of ethics, that the search for well-being and happiness are moral actions. Descartes was inspired by the water fountains in Paris to explain this search for balance, a model called hydraulic. Descartes, in his "mechanistic" to explain the world, believed that the way human bodies functioned in a similar way to that used in the sources and sought subsidies anatomy. He supposed that the pineal gland (which controls the daily body rhythms and sleep-wake cycle), by staying close to the ventricles filled by spinal cerebrospinal fluid (cause of hydrocephalus), this liquid pumped activating nerves, muscles and bones, so the individual, stimulated by the sight of food and being motivated to eat which would address such an automaton to the food source. The visual system via the optic nerve, would be the eliciting mechanism of response by the pineal and the philosopher came to build a "robot" from this model. However, its mechanical model did not involve a middle ground, and bodies should reach extreme lack of nutrients in the body to be motivated to eat beberou. Hardly anyone could survive if he chose to seek food only when their hunger was on the border. Walter Cannon, in 1929, coined the term homeostasis to define this quest for balanced states of the organism.

Homeostasis for Cannon is defined as an oscillation between two extreme closest to an optimal idealized, is a system of regulation of all living processes. (Homeostasis: a tendency of the physiological state of the organism maintain balance).

Figure 1 - Schematic representation of homeostasis Source: Tortora and Grabowski 2002 P. 7.

Figure 1 - Schematic representation when this homeostasis is disturbed by a stimulus, as exemplified in the text, which can be body temperature.



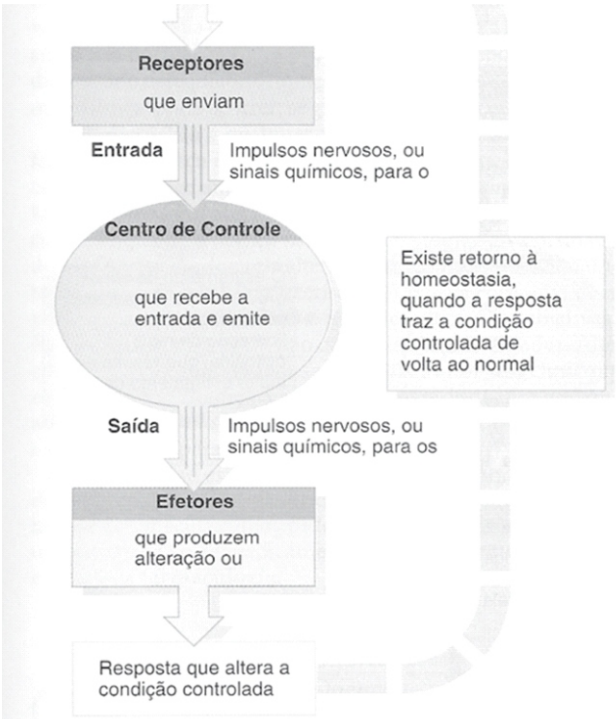


Figure 1 - Schematic representation when this homeostasis is disturbed by a stimulus, as exemplified in the text, which can be body temperature.

Antonio Damasio analyzing the nature of emotions and feelings in the book "Looking for Spinoza: pleasure and pain in the science of feelings" (2004, p 43), analyzes the life and work of the seventeenth century philosopher Benedictus Spinoza from the perspective of modern neuroscience and biology, he addresses "the ongoing attempt to achieve a balanced state of life is a profound and defining aspect of our existence." The balanced word here is noteworthy since all living organisms seek to maintain their equilibrium structures and functioning and survive. For Spinoza (apud DAMASIO, 2004, p.44) "every thing as far as his power, strives to persevere in its being and the effort by which each thing tends to persevere in its being is nothing more than the essence this thing."The emotions in this sense, are nothing more than adjustments that promotes the body to maintain the cohesion of its structures and functions.

The restless student who draws the attention of colleagues and teacher with inadequate for classroom behaviors may have relationship problems at home. Always remember the hyperactive students in these cases, as an area of the cerebellum responsible for body posture and the regulation of motivation called vermis is reduced in most cases (CASTELLANOS et.al., 2001), the student is constantly moving in the chair; sit, lift, sit, lie sometimes because your brain sends commands to adjust the body posture all the time, even if it is in proper position, a dissonance between what the body lives and what the brain that the body accuses lives.

Emotions are interesting examples of how to regulate the homeostatic processes. Generally, events that trigger positive emotions lead to a whirlwind of thoughts that pass quickly in our minds without us determos in one particular. Moreover, negative emotions triggered by thoughts are "ruminated" for long periods of time and we pause length them. What is the adaptive value of this difference? Positive emotions such as happiness, gratitude and well-being are important in our lives, but the stimuli that elicit such emotions do not diminish our expectation of life or health; then there is no need to detain solve immediate problems. Negative emotions such as disgust, sadness, anger, fears and guilt are immediately related to the decrease of our success, and therefore the emotions related to these thoughts must be processed in our minds continuously, until we are sure that the threat has passed or the problem has been overcome (DAMASIO, 2004). Feel sick what can cause diseases such as in the stool, which may contain dangerous parasites; fear can cause us to be more wary of danger; gratitude can make me act altruistically with respect to someone who in a time of need my hand held or that may help me in future shortages. It is to be expected and therefore assess the range of emotions and situations without the student is inserted in order to understand in its entirety behavioral responses offered in learning environments, as well as his life story. This reflects another problem of the educational environment: discontinuity and lack of information from the student's educational records. The student who enters the nursery should receive a booklet of reports of teachers, pedagogic coordinators and parents about changes in weight, growth, and psychomotor development of language, event of aggression, as well as samples of school work, similarly to the books of health and vaccinations offered by the health departments. Much of what is diagnosed by doctors, psychologists and educational psychologists could have another interpretation based on historical student. An example is the alarming number of cases of overactivity often misdiagnosed. What is an impulsive behavior or events circumstantial depression caused by parental separation or loss ofa loved one, could be solved alternative to that proposed by the administration of drugs manner. This report could accompany the student throughout his life, aiding the correct early diagnosis and appropriate treatment of disorders, especially in adolescence, quite different from that transcript critical time of change in the nervous system containing only the annual averages of the student in certain subjects or their performance on some tasks and skills.

Inherited and Acquired Learning relations in a fast approach, before we see something about MEMORY.

Sartorio, 2009 p.15-17 addresses that: "How much of what we learn can be determined by biological factors inherited from our parents; and how it can be delegated to cultural, social factors, the contingencies of life? For a long time, anthropologists, sociologists, biologists and historians have struggled this paradigm in a discussion controversy, steeped in biases, personal positions, defenses ideologies. Let's try to elucidate some biological contexts of our behavior. Think of the image of a baby. What are the first sensations and thoughts come to mind? Generally, emotions of joy, tenderness, charm and an incredible need for

protection are elicited in response to the baby in individuals of all ages and in all cultures. Do these behaviors are learned in the cultural process or determined by the functioning of our nervous and endocrine structures? We can think as follows: those behaviors that are critical to the survival of the individual or their offspring will be determined by biological phenomena first hand, because the body can not expect the sociocultural context provides him learning the cost that this would entail their life; other behaviors that enable more flexible and less relevant to survival responses, or they can wait a learning experience of the individual in his relationship with others with lower biological determination. Taking care of puppies is a network of complex behaviors, it is expected that some of these require social learning, however, some answers should be pre-programmed in neural networks. There is a gene called Fos β which is expressed in the hypothalamus (the brain area that controls all glands of the body and motivated behaviors such as eating, drinking, sleeping, sex and take care of the puppies), this gene, when inactive for protein production Fos functional β in genetically modified mice produces an indifference to the behavior of olfactory, audible or tactile stimuli arising from the puppies. Mice mothers with two inactive copies of the gene do not respond readily to the sound of their pups when they are called out of the nest, showing no maternal responsiveness to the call of the puppies and not recovering them to the nest (Brown et. Al., 1996)

The sight of puppies and babies invariably causes feelings of tenderness and wonder in people of almost any age, you just now, think of a kitten or puppy playing, or picture of a baby crawling and smiling. These feelings based on innate systems and processes, from triggering mechanisms, such as graceful and sudden repetitive movements of the infants of all species of mammals. Other trigger features are the larger size of the head relative to the trunk, with a rounded skull and protruding forehead, large eyes situated below the middle line of the skull, short, plump and rounded edges, small nose and high cheekbones. This set of characteristics common to puppies of all species, at least in mammals and birds, were selected throughout evolution, together with areas of the brain to recognize these characteristics as elicitors of care and protection for babies, in a co-evolutionary mechanism to ensure the survival of the genes of organisms carrying these characteristics. Thinking in evolutionary terms can facilitate our understanding of gender differences, sexuality, and differential development of boys and girls in their learning environments behavior. We must take into account once more the primitive ancestral environment in which the brains of men and women have evolved differently because they use different reproductive strategies. These genetic traits over time are marked in said cultural factors. Examples are numerous taboos in our societies. The taboo of incest (sexual intercourse between blood relatives, relatives or adoptive) avoid consanguineous matings and decrease the incidence of deleterious genes in duplicate (congenital problems that need copies of genes from both the male and female to express their characteristics). Avoid incestuous relationships would increase the chances of survival and reproduction of offspring and many animal species have strategies to avoid endo crossing, either by dispersion (mature chicks when moving away from its social group of origin, forming new bands) or mechanisms for recognition as pheromones, vocal signatures and behavior. Early human societies were organized in a similar way to those found even today in the Upper Xingu and Amazon; societies of hunters and gatherers, with a sexual division of labor, in which women were close to bedroom areas and were responsible for the care of the offspring and gathering fruit, buds and seeds; while men moved great distances and were responsible for hunting (protein supply) and defending territory. From this organization can assume different ways in which the brains of men and women were designed by natural selection and the consequences, the current skills and behaviors of boys and girls. Study showing preferences for toys said "male" stands as balls and toys and said "female" as dolls and pots were conducted with non-human primates by researchers Alexander and Hindes (2002).

They used vervets monkeys (Cercopithecusaethiopssabaeus) in an experiment in which males and females were subjected to two categories of objects to play: toys said "male" and "female". Importantly, these animals are not subjected to early stimulation, which enhances preference for toy, much less, they may have an understanding of their gender identities, we can only say that such preferences show that primate brains developed specialized systems for recognition categories of objects that have adaptive value, such as facial expressions of emotions. In the study, "boys" velvet spent more time with balls and carts police. This type of object when taken inertia shows a pattern of displacement is very similar to a game. When we look at a group of boys after a ball and we refer to an environment of hunting a hare might think that hunting and football share similar contexts. For this reason also, the boys are more adept at reading maps and skills that require spatial notions and justify why engineering schools have proportionally higher number of male students. The "girls" vervets spent more time in contact with said toys "feminine" as dolls and pots. It is a truism preference for dolls and justifies the fact that women show more developed cognitive structures for language (women communicate more and better than men in general) and are more sensitive to potentially harmful to offspring organisms like cockroaches and rats. The pots seem less obvious preference of female vervets, but pots are great containers to store small items like seeds, fruits and sprouts. "(Sartorius, 2009 p.15-17). Described by the examples and approaches, we highlight some aspects of learning and its different explanatory contexts. We can say that versus genetic, innate versus learned paradigm, culture is outdated. Genes are not expressed in vacuo nor determine behaviors, are the genes responsible for producing proteins, which are the building blocks and regulation of metabolism of living organisms. Proteins, in turn, can structure areas of the brain and regulate metabolism in such a way that we will be able or not to play a certain role and introduce certain preferences. The influence of masculinizing hormones (androgens like testosterone) and feminizing (estrogens) during postnatal development and adolescence can alter specific brain areas and enable us to provide and behaviors characteristic of gender identity to which we belong. Said female behaviors can be manifested by boys without it presents sexual preferences by other boys. Conversely, boys can have sexual preferences for other children without leaving their general cognitive characteristics specific to boys. A common problem in educational environments is the need for environment for children in certain stereotypical types. A common example comes from great writers. Female brains are more adept to the language, so maybe it will have more teachers for letters to men teaching in this area, and even schools have letters in their ranks mostly women. How to explain geniuses of literature making such accurate descriptions including female characters, how to explain Machado de Assis in its description of the personality of Capitii in "Don Casmurro" or, JoãoUbaldoRibeiro in his book "The House of the Buddhas fortunate" that describes experiences devassas a lifetime of a lady? There is a big mistake in put labels on our students from false assumptions of what should be their behavior in relation to their gender. Despite the way our brains are structured, from our evolutionary origin and genetic and hormonal influences that determine our behavior, the human brain is very plastic and versatile, and can undergo significant changes when subjected to learning and experiences. We will work best this topic later in the text, when we discuss neuroplasticity. In general, even if we have some innate preferences, we can learn skills, tastes and values, including those against whom we are predisposed to and we have motivation, incentives and adequate training. A striking and simple example is homosexual behavior of many individuals undergoing imprisonment or any event with absence of the opposite sex. Some people may refer to homosexuality without even innate behaviors for it, or even having never expressed preferences for a sexual relationship with others of the same sex simply because copulation and sex are part of the behavioral repertoire of our species, but has functions other than reproductive. Many animals exhibit homosexual relations as part of the increase in social bond between individuals - if I have sex with you, I'm your friend and partner, then we can rely on each

other. In nearly all species of social mammals studied have records of events homosexuality among individuals close. The important thing, as we will see along the text, is that the teacher is aware of the preferences and abilities of boys and girls to assist in their development, not generating unnecessary frustrations or doubts its improvement."(Sartorio, 2009 p.18-25)".

Throughout the chapter we see through the researchers cited, there are some guiding principles of behavior of organisms, these principles should not be seen as rules or laws, but as a guide for a particular dependent behavior of contexts. One of these principles is the need for constant adjustment of the body so that it will not perish, he and his genes and descendants Another important point is the function of genes. These regulate the body does not immediately but produce substances (proteins) that form the basic structure (for example, the fragile X syndrome, there is a block in the expression of a gene that produces a protein that regulates neural development). If these proteins, or building blocks are not expressed correctly and in the correct location, will cause changes that can be positive or harmful to the individual. If positive, the organisms survive and leave kids with this feature (note: the feature may or may not be inherited by offspring), if negative, organisms perish, and such features (genes) perish with him. In later chapters we will see where the author on nutrition, BORDIN, address on the deal.

MEMORY

We describe below the development of the human being from the prenatal period through childhood and adolescence coming. Subsequently, we present the main developmental psychopathology of children and adolescents and the MEMORY INHERITED from the beginning of life.

DELVAN & LEGAL, p.37 reports that the process of human development occurs throughout the life cycle, ie from conception to death. The human being develops from the changes that are required him, with moments that are more intense and others in that little place. These changes in human life involves gains and losses, rise and decline. It should be emphasized that there are crises in the life cycle, is fundamental to understand them as an ongoing process of structuring, restructuring and imbalances that characterize the development of the subject in constant search for identity. Some examples of these crises are weaning; the entry of the infant or child in daycare or school; the arrival of puberty; vocational choice; the arrival of a baby in the family; the departure of children from home (to study or marry); menopause; retirement; a chronic and / or terminal; etc. These crises cause certain changes in specific moments of life and enable humans different skills and competencies, not necessarily cumulative develop. In the development process, there are clashes of emotions, motivations and meanings of people interacting in various contexts (family, school, neighborhood, work, etc.). We begin with the approach of the development process throughout the life cycle. We begin with the prenatal development and, therefore, we need to resort to some knowledge of biology (DELVAN & LEGAL, p.37).

The Prenatal Development

The penetration of the sperm into the egg marks the moment called fertilization. From there, there will be a series of cell divisions and the formation of human systems featuring different stages of prenatal development as NEWCOMBE, 1999.

a) The zygote

It is the stage of prenatal development understood this fertilization until the end of the second week elapsed after this event. It is when the fertilized egg down the fallopian tube and attaches to the uterine wall. Cells divide rapidly and in large numbers, form a small structure that differentiates into two cell groups: one group of cells is responsible for the formation of the human embryo, while the other group form the cord.

b) The Embryo

After the second week of training after fertilization and when the group of cells is in the womb, begins the second phase of training of the human being, called the embryonic stage. During this period, are formed the main organ systems: heart, stomach, liver, kidneys, lungs, brain and spinal cord. It is the most fragile period of training, the fact that certain diseases, if contracted by pregnant women in this phase, such as rubella, measles, syphilis, toxoplasmosis, etc., can have serious consequences for the developing embryo. In cases where the formation of the major organ systems are affected, miscarriages may occur.

c) The Fetus

The fetal period begins as from the third month of pregnancy and ends with birth. In this phase, the movements arise, the sense organs start functioning and there is the "finish" the general training of the human fetus. Arise taste buds, hair, nails, skin, besides weight gain and size are important for ensuring that individual survival after birth.

Among the events which influence the development process during the prenatal period, genetic are, for example, color blindness and chromosomal such as Down's syndrome. In addition, there are environmental events called that may influence the development of the embryo or fetus, such as diet, drug use, number of pregnancies, age of mother and your psychological state. We observe, therefore, that environmental events that can affect prenatal development of human beings relate to the behavior of pregnant women and can be prevented through education and certain care.

Recent research indicates that variations in the prenatal environment can have important influences on fetal development. Alcohol intake by pregnant women can cause Fetal Alcohol Syndrome (FAS). Symptoms include pre and retarded postnatal growth, premature birth, mental retardation, physical deformities, sleep disorders and congenital heart disease. Larger quantities and frequencies of alcohol consumption are related to a greater number of affected babies and more severe symptoms (Newcombe 1999).

The Newborn

It is the name received by humans in the period from birth through the first 30 days of life. The newborn has a wrinkled appearance, flat nose and reddened skin. With approximately 50 cm long, weighs about 3 pounds and is covered by a sticky substance (Vernix) that protected inside the womb.

To evaluate the condition of the newborn, is performed in the first minutes of life, the Apgar test, repeated after five minutes. This objective evaluation to detect physical and neurological irregularities severe and require immediate attention.

The newborn has a useful set of reflexes, called survival reflexes, by their adaptive capacity as offer protection against aversive stimulation and allow the baby to satisfy their basic needs. There are still primitive reflexes. These are not as useful as they tend to disappear in a few months. Are remnants of the evolutionary history of our species. Between survival reflexes, are: the breathing, sucking, swallowing, eyelid, pupil and rotation. The primitive reflexes are:

- Babinski: opens and closes the toes when the sole of this is rubbed;
- Grip: grab objects when the palm of your hand is played;
- Live: before a loud noise, opens his arms and arches his back;
- swimming: immersed in water, shows active movements of arms and legs, involuntarily holding my breath; .
- Automatic gait: remains upright when placed standing on a bench, taking a step as if walking.

SHAFFER, David & SHAFFER, David emphasize that beyond the reflexes, the newborn has the five senses (hearing, sight, smell, taste and touch) running well. Some of these senses will develop even better in the following months, but studies with neonates (newborns) indicate that well see an image at 20 cm distance, listen enough to detect what happens around them and differentiate them sweet flavors, bitter and sour. The smell and the feel are the most confusing for the baby senses, but the interactions established in the environment with people who care for him assist in the development of these capabilities.

The Childhood

It is during the years of childhood that the child suffers great changes that mark his development. The development of the brain, body and motor skills refers to the physical aspect and also the cognitive and emotional aspects. Cognitive development involves sensory abilities (sight, hearing, taste, smell and touch) that are present at birth and improve in the years of childhood. The way to think about what happens around the child also suffers transformations. Piaget and Vygotsky refers to the structuring of intelligence to gain knowledge and language, playing leading role in this process specifically speech. Simultaneous attention and memory usage contribute to the formulation of reasoning to solve problems.

Generally, when we think of a definition of learning, it is almost impossible to separate it from memory because there was no guarantee that just learning a behavior (or frequency, or even its probability of occurrence) is modified. Hence, the individual learned, because it manifests the action, skill, competence acquired before, ie, he remembers what to do, how to proceed or what information is important.

Although inseparable in operational terms are distinct basic processes. We can define memory as the process of acquisition, decoding, storage and recall of experiences. This means that memory involves several complex actions: 1) acquisition: through the sensory organs, but filtered by our attention and perception, 2) decoding: the information acquired are processed (analyzed) by our previous learning and analog encoded (imagetically) or propositionally (language), 3) storage: The information will become part of our repertoire of information (neural networks in the brain) and can stay there for seconds or years; 4) evocation remember the information or seek between stored memories those being used at the moment (COON, 2005; Lefrancois, 2008).

By imagery we are not referring only to visual images. Technically, the area of cognitive psychology, the whole image is the percept (perceptual unit) and can be visual, auditory, tactile, gustatory, olfactory, vestibular (balance organs) and nociceptive (pain) (MATLIN, 2004).

Our memory does not work as a movie. More and more evidence Weds showing us that she looks more like a jumble of notes with which we try to redo the stories (Myers, 1999).

Every time we remember the past, we will not seek information unscathed. She suffered several content changes (increases and decreases) as new information overlapped (or similar future experiments, not only for the content but also the meaning) (Schacter, 2003). Thus, we say that memory is always a process of reconstruction ACTIVE pre-existing knowledge.

The memory can be classified in relation to time and stored content. As for time, can be classified into short-term memory (for many authors is also called working memory) and long-term. The short-term memory (or working) lasts from seconds to minutes, approximately 3-4 seconds to 30 minutes. It is limited on the amount of information that can be acquired and is easily corrupted (remember the situation of being introduced to many different people with similar names and the end of the presentations, you must have forgotten the name of the first).

This mode of functioning of our memory has direct and very serious implications on the learning process. First, if our short-term memory (working) is limited, this limitation should be taken into consideration in the planning of teaching, because large amounts of information should be divided into smaller parts and sequenced so that the acquisition of significant content can indeed occur. Otherwise, there is no guarantee that there is understanding of the information. Second, these results are relevant also for the self-organization during the studies. Divide the content into "portions" smaller and study time in days (reviewing more often, and not just before exams) favors the efficient formation of long-term memory. Third as long-term memory is always associated with other experiences, a way to ease the process would combine the new content with what is already well known. Remember the old content is easier to remember the new (Myers, 1999). Fourth, the longer of practical, easier to remember specific content.As already pointed Seneca in the first century of our era, "The mind is slow to unlearn what took a long time to learn" (Myers, 1999). This is what we call the spacing effect (MATLIN, 2004; MYERS, 1999).

As for stored content, the memory can be classified into explicit and implicit or declarative or procedural. Explicit or declarative consists of all the contents that can be brought to consciousness and involves episodic memories (events like what you were doing before you start reading this chapter), semantics (the meanings of words) and autobiographical (his personal story - what's your name, that of his parents, where he lived, his best friends, who studied in university, etc.). Already implicit or procedural memory is directly linked to our motor skills, our preferred ways of solving problems, our emotional responses, spatial location, known faces.

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Rua Reinaldo Richter nº 155. BL 06 apto 31
Campo Comprido Curitiba/PR. CEP: 81220-120

LIVING AND LEARNING

ABSTRACT

The issue of learning disabilities is debated worldwide. In Brazil and Latin America has gained alarming proportions. Prepare the student to learn how to learn. Theoretical and methodological perspectives of human development and learning.The life cycle. Psychopathological processes in human development. Modes of learning and its relation to the teaching process.Contributions of neuroscience in understanding human development and learning. We will seek to understand the neurological underpinnings specifically the nervous system and its functional units. Analyze the relationships between physiological, psychological, social and cultural aspects of human development and. Enabling professionals to work more understanding on the inclusion of people with disabilities in different institutions. Characterize the relationships between education, learning and neuroplasticity contemplating weaknesses: physical, visual, hearing and mental. Deepening knowledge about chronic diseases; disorders or learning disorders.Brain neuropathology, their cognitive disorders and their

neuropsychological and socio-cultural implications.
KEY WORDS: Learning Difficulties, Neuroscience.

RÉSUMÉ

La question des troubles d'apprentissageestdébattuedans le monde entier. AuBrésiletenAmérique latine a acquisdesproportions alarmantes. Préparerl'élève à apprendre à apprendre. Perspectives théoriquesetméthodologiques dudéveloppementhumain et de l'apprentissage. Le cycle de vie. Processuspsychopathologiquesdans le développementhumain. Modes d'apprentissageet de sa relation avec le processusd'enseignement. Contributions des neurosciences à la compréhension du développementhumainet de l'apprentissage. Nous allonschercher à comprendre les fondementsneurologiques en particulier le systèmenerveuxet de sesunitésfonctionnelles. Analyser les relations entre les aspects physiologiques, psychologiques, sociauxetculturels du développementhumain et. Permettre aux professionnels de travailler plus de compréhensionsurl'inclusion des personneshandicapéesdans les différentes institutions.Caractériser les relations entre l'éducation, l'apprentissageet la neuroplasticitécontemplantfaiblesses: physiques, visuels, auditifs et mentaux. L'approfondissement des connaissancessur les maladies chroniques; troubles ou des troubles d'apprentissage. Neuropathologie du cerveau, leurs troubles cognitifsetleursconséquencesneuropsychologiques et socio-culturelles.
MOTSCLÉS:difficultés d'apprentissage, Neuroscience.

RESUMEN

La cuestión de los problemas de aprendizaje se debate en todo el mundo. En Brasil y en América Latina ha cobrado proporciones alarmantes. Preparar alestudiante para aprender a aprender. Perspectivas teóricas y metodológicas deldesarrollo humano y elaprendizaje. El ciclo de vida. Procesos psicopatológicos eneldesarrollo humano. Modos de aprendizaje y surelaciónconelproceso de enseñanza. Contribuciones de laneurocienciaenlacomprensióndeldesarrollo humano y elaprendizaje. Vamos a tratar de entender los fundamentos neurológicos específicamenteel sistema nervioso y sus unidades funcionales. Analizarlas relaciones entre los aspectos fisiológicos, psicológicos, sociales y culturalesdeldesarrollo humano y. Permitiendo a losprofesionales a trabajar más entendimiento sobre lainclusión de las personas condiscapacidaden diferentes instituciones. Caracterizar las relaciones entre laeducación, elaprendizaje y laneuroplasticidad contemplando debilidades: físicos, visuales, auditivas y mentales. Profundizarelconocimiento sobre lasenfermedades crónicas; desórdenes o trastornosdelaprendizaje. Neuropatologíadelcerebro, sus trastornos cognitivos y sus implicaciones neuropsicológicas y socio-culturales.
PALABRAS CLAVE: Dificultades de Aprendizaje, Neurociencia.

VIDA E APRENDIZAGEM

RESUMO

A questão das dificuldades de aprendizagem é debatida em todo o Mundo. No Brasil e América Latina tem ganhado proporções preocupantes. Preparar o aluno para aprender a aprender.Perspectivas teórico-metodológicas do desenvolvimento e aprendizagem humanos. O ciclo vital. Processos psicopatológicos no desenvolvimento humano. Modalidades de aprendizagem e sua relação com o processo de ensino. Contribuições das neurociências na compreensão do desenvolvimento e aprendizagem humanos.Procuraremos compreender as bases neurológicas especificamente o sistema nervoso e suas unidades funcionais. Analisar as relações entre os aspectos fisiológicos, psicológicos e sócio-culturais do desenvolvimento humano. Possibilitando aos profissionais maior compreensão para atuarem na inclusão de Pessoas com Deficiências em diferentes Instituições. Caracterizar as relações entre a educação, dificuldades de aprendizagem e neuroplasticidade contemplando as deficiências: física, visual, auditiva e mental. Aprofundando conhecimentos acerca de doenças crônicas; distúrbios ou transtornos de aprendizagem. As neuropatologias cerebrais, seus distúrbios cognitivos e suas implicações neuropsicológicas e sócio-culturais.
PALAVRAS-CHAVES: Aprendizagem, Dificuldades, Neurociencia