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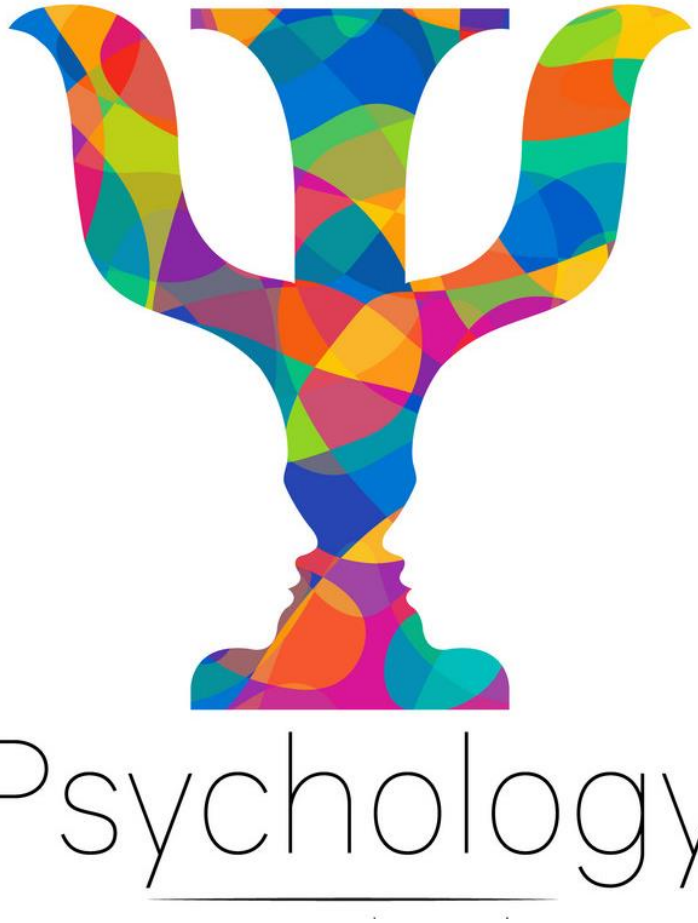

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Samvel KHUDOYAN

AN ATTEMPT OF EXPLANATORY CLASSIFICATION OF HUMAN DEVELOPMENTAL STAGES*

Abstract

In recent decades, interest in stages of human development sufficiently decreased. The existing stage theories were hardly criticised for methodological issues, insufficient empirical validity, but rare attempts have been made to solve these issues. As a result, contemporary developmental psychology is constructed on the basis of worldly division of ages (infancy, childhood, adolescence, etc.), but not a scientific classification. We offer an explanatory life-span developmental theory based on the functional approach. According to this theory, the function of each developmental stage is to achieve a specific goal by solving a certain developmental problem through a special developmental program. There are *four developmental problems and, accordingly, four stages identified. The first problem/stage is the formation of the subject of species activity (0–7 years); the second stage is aimed at developing the subject of sexual activity (8–20, 22 years). During the third stage, a subject of family and work activity forms (20, 22–40, 45 years), and the meaning of the last stage is self-exhaustion (from age 40, 45 until the end of life).*

Keywords: *principles of age classification, functional approach, developmental problems, developmental stages.*

Introduction

Interest in stages of human development sufficiently decreased in recent decades (Bonder & Dal, 2009), instead "… the diversity of person and context has moved into the foreground of the analysis of human development" (Lerner, 2006, p. 7). According to A*rnett* & Tanner (2009), the stage theories are alternated with "*life span*" and "*life course*" *metatheories*, which emphasise general principles of development (such as plasticity, multi-directionality of development or human agency in development) instead of stages. This is a dichotomy-based approach, which, according to W. Overton, has never been

* This article was one of the last works during Professor Samvel Khudoyan's lifetime, which he did not manage to publish during his lifetime.

successful; it **"…** elevates one concept of the pair to a privileged position, builds a research program on this concept, and then strives to demonstrate observationally that the non-privileged concept can be denied or marginalised" (Overton, 2006, p. 18). This approach has been *rightly criticised* by J. Arnett and J.Tanner: "Avoiding stages means ignoring the fascinating and important question of what qualitative changes in development may take place from one age period to the next" (Arnett & Tanner, 2009, p. 26). Moreover, it is impossible to understand any developmental process ignoring what stages it passes and what are the qualitative differences of each stage. As van Haaften A. W (1997). mentioned: "…The notion of stages is conceptually bound up with the notion of development" (p. 16). He defines development as "…a process of change resulting in one or more qualitatively different stages for which prior stages are necessary conditions within developmental patterns" (p. 28). From this position, the issue of developmental stages cannot be outdated or rejected, and it is an actual and one of the most important problems of developmental psychology. At the same time, the methodology of existing stage theories has serious issues and has been repeatedly criticised. Vygotsky was one of the first who criticised the stage theories of his time for ignoring the development of the whole person and constructing the stages based on personality's subsystems (such as sexuality, intellect, etc.), for descriptiveness and abstraction from essential processes of development (Vygotsky, 1934/1998). Today the stage theories are also criticised for insufficient empirical validity (De Mul & Korthals, 1997), ignorance of cultural and individual differences, fixed chronology (Pelaez et al., 2008). This criticism, for the most part, is justified, and the methodology of stage theories needs serious revision. First of all, developmental psychology must try to understand the development of the whole person (as Vygotsky states), the general and universal line of normative changes, due to which the ontogenesis of humans (even animals) is so alike. The appearance of the same anatomic-physiological, psychological and behavioural changes during the same age periods of human development indicate the existence of a universal bio-socio-psychological program that determines the stages of development. These normative changes of development are described in the textbooks of developmental psychology in an age classification that comes from ancient times and is based on the folk perception of age periods (newborn, childhood, adulthood, etc.). This stage model reflects the development of the whole person, but it only describes but not explains the normative changes. Therefore, the next task of a stage-by-stage approach is to build an explanatory age classification, which can explain the meaning of stages and the changes during the age periods.

S. *Rosova* (1986) *divided the classifications into descriptive and* essential *types. However, she considered that* the essential classifications are those that explain the classified objects. The explanation in essential classifications can be causal (the objects are classified by their causal relations) or genetic (the objects are classified based on their formation and development). From this position, most of the well-known developmental stage theories are not explanatory classifications because *they describe but not explain the developmental stages. Hence, only a* few theories *attempted to explain the developmental stages.* One of them was the periodisation suggested by G. Stanley Hall, explaining ontogenetic stages based on the recapitulation theory (as cited in Thompson et al., 2012). It is a genetic classification because it attempted to explain the origin of the developmental stages (ontogenetic stages recapitulate the phylogenetic stages of development). A causal explanatory stage theory was suggested by *A. V. Petrovsky* (1987). *He classified the ages based on educational stages (preschool age, primary school age,* secondary school age, etc.) and emphasised that "…just because society creates schools the school-age as a stage of personality development appears" (Petrovsky, 1987, p. 53).

My research (2010) showed that it is possible to explain and classify the stages of human development based on a functional approach (functional explanatory periodisation) and apply objective and clear criteria to determine the developmental stages. In the next sections, I will attempt to present this theory of age periodisation.

Functional approach and its application to age periodisation

Functionalism has long traditions in developmental psychology (Dunham & Bengtson, 1986). As it is known, it studies the functions of developmental phenomena and attempts to explain the functional meaning of ontogenetic developmental processes. Based on this approach, I suppose that each developmental stage has a special function. The meaning of the latter is to achieve a specific goal by solving a certain developmental problem through a special bio-socio-psychological program. It means that this theory explains the developmental stages teleonomically, in terms of their purposefulness, goal-directedness and, on the other hand, describes human development as a process directed to the solution of specific developmental problems. Within the suggested theory, the terms "function of development", "developmental goal", and "developmental problem" supplement and explain each other. The function of the development is explained by the goal - the final result, that must be achieved during the developmental stage. The developmental problem reflects the way of achieving the goal. In a certain sense, these

terms can be viewed as synonyms because their content in this theory is nearly the same. For example, within this theory, the function of the adolescent period is considered the formation of sexual activity subject, but it is also the goal of this developmental stage. The developmental problem, solved during this stage, is the same – the formation of sexual activity subject through the genetic, psychological, and social development programs and processes. However, these three terms describe different aspects of development, i.e. the function of development, its outcome, and the way of achieving the goal (i.e. problem-solving). Hence, apart from the functional approach, this theory is also based on teleonomic (Mayr, 1988) and the so-called problem (Holmes, 1958) approaches. According to Mayr (1988, p. 44), the teleonomic or goal-directed processes are common in nature, and the ontogeny is one of such processes. To describe the teleonomy in development W. F. Overton and U. Muller (2012, p. 23) used the terms “directionality”, “orientation towards a goal or end state”, and “Objective teleology”. The objective teleonomic processes of ontogenetic development are based on “biological and social goals” which were formed during the biological evolution and history of society (Khudoyan, 2010). At the same time, one of the specific characteristics of human development is subjective goal-directedness, intentional self-development (Brandstädter, 2006) - the individuals organise their own development through setting conscious developmental goals and achieving them.

In developmental psychology, R. Havighurst (1972) introduced the problem or task approach, describing human development as a process of solution of multiple, age-related developmental tasks such as learning to walk or achieving personal independence. My approach differs from this theory. I explain the developmental stage as a process of a step-by-step solution to only one problem. These steps can be interpreted as developmental tasks, but I prefer the term “neoformations”(Vygotsky, 1934/1998)* because the steps can also be biological changes, which cannot be viewed as tasks. In my opinion, the difference between developmental “tasks” and “problems” is that the problem relates to the result, but the tasks are separate steps in the process of solving the developmental problem. I believe that the appearance of specific biological, psychological, and social age-related neoformations are not random and independent of each other; each of them is a step in the process of solving the developmental problem. I also consider that each developmental stage has its specific motivational - energetic

* The concept of age-related “neoformations” was suggested by L. S. Vygotsky. The neoformations are the features, which appear for the first time in a certain age.

base – the basic need, or drive, which stimulates the developmental processes. For example, the motivational basis of the adolescent period is the sexual drive (Khudoyan, 2010).

The developmental problem (goal) and the function of the developmental stage can be identified and defined by analysing the characteristics of age-related essential neoformations, their content, and sequences. By the term “essential neoformations,” I refer to the developmental changes, which are related to the main direction of ontogenetic development in each stage. However, apart from the main direction, the development has its branches (Miklin & Podolski, 1980). The main direction concerns the development of the personality as a whole, and the branches of the main direction show the development of subsystems of personality (development of intelligence, emotional sphere, and others). In my opinion, the main direction is reflected in the biological, psychological, and social levels of human development. It means that the neoformations of these three subsystems of personality have the same nature and content at a certain developmental stage. They are aimed at achieving the same goal. For example, in the adolescent period, the appearance of secondary sex characteristics, the actualisation of sexual drive, or learning of gender role behaviour show that the main direction of this period is the formation of sexual activity subject. From this viewpoint, the essence and the meaning of human ontogenetic stages cannot be understood on the basis of developmental characteristics of only one subsystem of personality (biological, psychological or social). The changes in all three spheres must be viewed in unity. Another characteristic of this stage theory is the attempt to define the beginning and the end of developmental stages based on objective criteria – neoformations. The end of the previous and the beginning of the new developmental stage are calculated based on the changes in the content of neoformations and the appearance of the first neoformations aimed to solve the new developmental problem. For example, at about 7-8 years of age, all human species-specific characteristics are already formed. No other such characteristics appear after this age. However, after 9-10 years of age, a new type of neoformations – secondary sex characteristics begin to appear. Based on these obvious facts, one may conclude that the direction of development has changed, and a new stage begins.

According to this theory, one of the specific features of human development is that the developmental process occurs in two essentially different forms - spontaneous and conscious. Biological and social programs determine spontaneous development. At this level, the developmental problem is not urgent for individuals, and they are not clearly aware of it. They do not perform a purposeful activity in order to solve a certain

developmental problem because they and their social environment do not perceive themselves as subjects of such an activity. For example, until adolescence, the children do not perceive themselves as subjects of sexual activity and do not perform a purposeful activity in this sphere. However, at a certain period of each developmental stage, the person becomes aware of the developmental problem, understands the direction of his/her development, and perceives himself/herself as a subject of this process. From this period, the developmental process transforms into conscious, purposeful activity.

At each developmental stage, it is possible to identify the periods when spontaneous development transforms into a purposeful, conscious form of development. These periods (ages 2-3, 12-15, 25-33, and 65-75) are considered critical and are accompanied by a reorganization of self-consciousness (Khudoyan, 2010). From this perspective, each developmental stage can be divided into two periods: a period of spontaneous development and a period of conscious development.

Functional stages of human development

Based on the analysis of the functional significance of biological, psychological, and social neoformations which appear during major cycles of human development - childhood, adolescence, adulthood, old age, was identified four developmental problems (goals) and, accordingly, four functional stages, directed to their solution. Analysis of the main neoformations of the embryonic period and childhood (up to 7, 8 years) revealed that the first developmental stage is aimed at the formation of species activity subject (human being). The second developmental stage is aimed at the formation of gender/sexual activity subject (8, 9 to 18, 20 years). The third developmental stage (20 to 40, 45 years) is aimed at the formation of social activity subject (the subject of family and occupational activities). The last developmental stage is defined as self-realisation or self- exhaustion (from the age of 45 years until the end of life).

Stage of species activity subject (human being) formation

As it was mentioned above, the main neoformations, which appear during the embryonic period and childhood, are biological, psychological, behavioural, and social human-specific traits and, therefore, it can be concluded that the function of this developmental stage is the formation of a human being. In my opinion, the motivational basis of this stage is the need to become a representative of his own species (human being).

This stage has two periods – the biological and the psychosocial species-specific

features formation periods (Khudoyan, 2010). The first is the embryonic period, during which the embryo becomes a human being biologically and obviously, after the birth, no other human-specific biological traits appear. This process is based on specific biological laws. According to one of them: "…an embryo first reproduces the characteristics of phylum in a whole, then the traits of class, order… from more general forms less general ... until the formation of most special traits inherent to representatives of appropriate species" (Arshavsky, 1982, p. 45).

During the next period of this stage, right after birth, the process of psychological, behavioural, and social species-specific traits formation starts. It is already a fact that during the neonatal period, infants display particular sensitivity to human faces (Johnson et al., 1991), voices (Ecklund-Flores et al.. 1996) and at the end of the first month, the newborns start reacting to other human beings with specific emotional responses (Buhler, 1935). The most reasonable explanation for these phenomena is that the newborn, due to certain genetic mechanisms, begins to recognise his/her species and accepts it. In other words, it is a specific process of imprinting.

During the first years of life, children acquire one of the most important human-specific traits – speech, due to which many other important human characteristics, such as consciousness, verbal thinking, begins to develop. In early childhood, another human trait - bipedalism forms. Furthermore, at nearly 2-3 years of age, self-consciousness appears (Vygotsky, 1934/1998; Rochat, 2003). To become self-conscious means not only to differentiate the self from non-self but also to categorise the self into a certain category – human, girl/boy, spouse, parent, etc. My earlier research has shown (Khudoyan, 2010) that children of this age become aware of themselves as human beings and identify themselves as humans (specific self-consciousness). Some facts indicate that the roots of the specific self-consciousness date back to the primaeval times. For example, based on ethnonymic analysis A. Spirkin (1960) concluded that many primitive peoples differentiate their ethnic group from other creatures by categorising themselves as human beings. He wrote:

«… In the languages of many ethnic groups (Kurnai, Papuans, Melanesians, Botokudes, Nivkhs, Chukchi, etc.), the meaning of self-designations is "Human" or "Humans." The coincidence of a certain group's name with the word "Human being" could have arisen only in the ancient past of humanity. This indicates that the certain group as a whole became aware of itself as human beings, perceiving other groups as something else, maybe a sort of animals…» (Spirkin, 1960, p. 193).

Sprikin also stated that the facts of totemism indicate that the people of early

patrimonial society did not separate themselves from nature; they felt their community with animals and even plants (Spirkin, 1960, p. 191- 192).

The image of a human-animal hybrid and the idea of the metamorphosis of human beings into animals (the archetypes of the Sphinx, werewolf) is reflected in folklore and in the art of many people's early histories. These facts also are supporting the hypothesis that historically, the primary self-awareness of human beings was specific, and there was a period of specific uncertainty in the self-consciousness of primaeval man. Some facts indicate that nearly at 2-3 years, there is a period of species uncertainty also in the child's self-consciousness. For example, studies of preschoolers' dreams show that the images of animals prevail over the images of a dreamer's self or other humans (Foulkes, 1982). The human images in dreams start to increase from middle childhood (Helminen & Punamäki, 2008). The research also showed that three years old children could identify themselves with animals, but later this phenomenon disappears (Clark & Clark, 1939). As it is well known, toddlers and preschoolers identify themselves easily with animals in their games. According to B. White (1990), children whose development lag behind their peers like to play the roles of animals in games, whereas the children with normal development prefer the adult's roles. The anthropomorphic and animistic thought of preschoolers also indicates that their species self is not clearly differentiated; they feel likeness to animals. For example, for children of this age, it is not unusual that in fairy tales, cartoons, or films, animals think, speak, and act like humans.

The species uncertainty and the process of species self-identification of early preschoolers have also projected in their drawings. Children begin to draw around the age of three, and their first spontaneous drawings (a circle with two vertical lines) are humans (Lowenfeld & Brittain, 1964). Besides humans, preschoolers like to draw animals (Boldyreva, 1974).

The hypothesis that the self-consciousness at this age is specific is also supported by some psychopathological facts concerning disturbances of self-consciousness and self – identification before the adolescent period. For example, children with pediatric schizophrenia can have species metamorphosis delusion (after the adolescent period, this syndrome is extremely rare): they can believe that they are animals, or plants, or even inanimate beings (Sukhareva, 1974). Children with such problems can deny their belonging to humans, refuse to move in a bipedal way, or speak, and their first drawings are animals instead of humans. They feel discomfort in communicating with humans and like to interact with non-humans (Sukhareva, 1974).

After the awakening of self-consciousness, the process of developmental problem

solution achieves a conscious level. The children begin to investigate and imitate the adults and their behaviour (for example, by playing the roles of adults in the games) and try to assert themselves as full-fledged humans. They like to declare that they are big boys/girls, not babies. My previous research showed that for children, the word “big” means not big physically or in other aspects but a full-fledged human being, like adults (Khudoyan, 2010). This indicates that children of this age doubt that they are full-fledged humans.

The last human-specific neoformations of the first developmental stage can be considered morality, concrete operational thought, as well as the abilities to read, write, and calculate.

In suggested periodisation, the stage of human-specific features formation is completed around the age of 7-8 years, and no other species-specific neo-formations appear after this age.

Stage of gender/sexual activity subject formation

The function of the second developmental stage and the problem, which solves during this stage, is the formation of biologically, psychologically, and socially grown, mature male and female (ages 9 – 20). All main neoformations of this stage are regarded to this sphere and the drive (need), which stimulates the developmental stage, in my opinion, is the sexual drive. Traditionally this stage is divided into phases of puberty (period of biological changes) and adolescence (period of psychosocial changes) and begins nearly at ages 8-9 years with well-known biological changes. In parallel with biological changes, the psychological and social neoformations appear (the sexual drive and feelings, intimate relationship between boys and girls, increasing interest in sex and gender roles, etc.). To me, the most significant psychological neoformations of this age are the new reconstruction of self-consciousness and the formation of gender identity. If in the previous developmental stage to “grow’’ means for a child to become a full-fledged human being, at this stage, as I. Kon stated: “to grow means to become a full-fledged man or woman” (Kon, 1988, p. 219). In the diffuse self-concept of children before adolescence (“I am human”), the aspect of gender is not clearly differentiated and stable; for example, many children believe that after growing up, their gender can be changed (Kohlberg, 1966). In puberty, the self-consciousness of the person reconstructs due to the fundamental changes in physical, psychological and social (changes in interrelations and attitudes towards adolescents) spheres, and the adolescents become aware of themselves and feel as male/female, as subjects of gender/sexual activity. This

reconstruction can be characterised as a process of differentiation and integration of cognitive and sensory aspects of gender self-consciousness. The idea that in the structure of self-consciousness and identity besides the cognitive aspect (the idea of self), there is an aspect, which is not conceptual, is not based on categories we can meet in the works of different authors with different terms, such as “sensory fabric of consciousness” (Leont’ev, 1978, p. 120), pre-reflective self-consciousness or bodily self (Legrand, 2006, p. 89). I prefer to use the term sensory self-consciousness (Stanghellini, 2004, p. 151), the feeling of the self, which is normally integrated with the cognitive self and is not clearly recognised. This integrity of self-consciousness can be disturbed in some psychopathological cases. For example, in depersonalisation disorder, the cognitive aspect of the self is preserved, but the patient can declare that he/she doesn’t feel himself/herself, which means that the sensory aspect of self-consciousness is disturbed. In the case of gender identity disorder, there is a conflict between the cognitive and sensory aspects of gender self-consciousness - the person knows his/her biological sex but feels himself/herself as representative of the opposite sex. A discrepancy between cognitive and sensory aspects of consciousness and self-consciousness can occur in normal cases too. For example, we can have an idea of something without having experience of that phenomenon (e.g. the idea of vacuum). I consider that such a condition occurs in the gender self-consciousness of children before adolescence - the cognitive aspect of gender self-consciousness and identity occurs before adolescence, but the sensory aspect is missing due to the lack of biological basis (level of sex hormones, secondary sex characteristics) for a sense of gender. In other words, children know their gender, but they do not feel themselves as man/woman, as subjects of sexual activity, the issues regarding the sexual sphere are irrelevant to them, and the aspect of gender in their self - concept is vague.

The gender-related changes in self-consciousness can be clearly seen in the drawings of children before and after puberty. For example, Burn (1982) reported that after the appearance of secondary sex characteristics, adolescents draw the gender differences of body and clothing in more detail; they focus too much on their body image and on the issues of masculinity/femininity in general. These facts indicate that after puberty, self-perception, body image and criteria of self-assessment are changed, and the adolescents perceive themselves not as a human in abstract as in childhood but as a woman/man and want to understand what it means to be so (Khudoyan, 2010).

After the awakening of self-consciousness, the further formation of gender activity subject becomes conscious. On the one hand, adolescents explore the traits of

masculinity/femininity, gender values, roles, patterns, and principles of behaviour, and create images of ideal man/woman and imitate them, on the other hand, they test the gender-related behaviour and try to assert themselves as a full-fledged man/woman and develop a positive gender self-concept. Meanwhile, as research shows, uncertainty or confusion of gender identity occurs during this period (Erikson, 1993).

Overall, the process of formation of gender/sexual activity subject and the second stage of human development ends approximately at the age of 20-22. By this time, a young person reaches sexual maturity biologically, socially and psychologically, and no other neoformations concerning gender/sexual sphere appear after this age.

Stage of social activity (family and occupational activities) subject formation

According to this theory, the function of the third stage of human development (ages 20 – 40, 45 years), as was mentioned above, is the formation of social activity subject. By the term "social activity", I mean the two main activities of this stage – family life (marriage, parenting, and family role-taking) and occupational (pursuing a profession, building a career, occupational role-taking) activity.

Unlike previous stages, this stage does not begin with qualitative biological changes, but the body continues to grow quantitatively. However, as biological neo-formations of this stage, with some reservations, might be considered the appearance of parenting drive (Aarssen, 2007), the biological changes during pregnancy and the birth of the child. From the purely biological point of view, it can be assumed that the second and the third stages of development represent a single line and are based on the same genetic program. However, in human society, these two stages have qualitatively different sets of psychological and social neo-formations. Even in animals, these stages are based on two different and even opposite instinctive and behavioural mechanisms (sexual and parenting instincts). Therefore, I believe that after the age of 20-22, the developmental process changes its direction, and we deal with a new stage.

The psychological and social changes of the third stage of development are associated with the beginning of family life and occupational activity. The legal age of marriage in most countries is 18, and after this age, usually from 20-22 years, young people start to marry and work. The motivational basis of this stage, in my view, is the parenting drive (need for having children, the instinct of parenting), on which, most likely, is also based occupational activity. For example, many animals' behaviour, which resembles human labour (nest building or hunting for feeding the cubs), appears after the birth of the offspring *(*Clutton-Brock, 1991).

During the first decade of this developmental stage (20 - 30 years), the physical and psychological systems reach their peaks (Ananev, 1980). At this age, there is a significant development also in the psychosocial sphere and in young people, as Pinyaeva and Andreev (1998, p. 5) mentioned, "…raises a sense of ownership of their lives, social responsibility for themselves, their actions and … for others." It can be assumed that reaching the peak of mental and physical development is a genetic signal that stimulates the actualisation of parenting drive; the person feels the power, confidence, and desire to care for others.

Around the age of 30, the third reconstruction of self-consciousness takes place (Khudoyan, 2010): young people begin to perceive and evaluate themselves as subjects of social activity - as a professional, parent, and spouse. During the second decade of this stage (30-40 years), young adults usually acquire occupational and family roles and reach a particular social and economic status.

This developmental stage ends at around 40-45, and development changes its direction, a new type of neoformations - ageing signs begin to appear.

Stage of self – realisation and exhaustion

For the last stage of human development and the second half of life (from the ages 40, 45 until the end of life), I prefer the term "self - realisation/exhaustion." If in the first half of the life (until 40 years of age) the developmental tendency is the formation, growth, and maturation of personality, in the second half, the tendency can be characterised as the realisation of inner potential, and, as a result, exhaustion of personality as a subject of gender, family, occupational activities and, finally, as a human being (the death). I consider that the second half of life's motivational basis is the need for self -exhaustion (or death drive). This need manifests itself in the desire to realise the inner potential and meaning of life, reach the main goals of life, and manage all incomplete tasks.

This stage of development also begins with physical changes. At the age of 35-40, most biological systems reach their peak of development and start to decline, signs of ageing appear. After the age of 50, the process of sexual activity subject exhaustion starts. Sexual desire and frequency of sexual activity decrease, gender role differences become less distinct, integration and exchange of gender-related characteristics occur, sex-typing becomes more fluid (*DeLamater* & *Sill, 2005;* DeLamater & Moorman, 2007*)*. This phenomenon Gutmann characterised as "normal unisex of later life" (Gutmann, 1975).

The subject of parental activity begins to exhaust when the youngest children

start to work, leave the parental home, get married, and begin to live independently. The subjective feeling of exhaustion is often reflected in the so-called “post parental transition” (Borland*, 1982*). Apart from social signs of parental activity exhaustion, there are also biological markers, one of which is menopause.

Another normative life event that signals the exhaustion of social activity subject is the retirement and the end of the professional activity.

Between the ages of 60 and 70, the physical, psychological, and social changes lead to a new reconstruction of self-consciousness and identity (Khudoyan, 2010). I assume that during this period appears the self-consciousness of a mortal. Before this age, the person knows that everybody dies and he/she will die too but does not feel it. The sensory aspect of the self-consciousness of a mortal is missing (Khudoyan, 2010). During this stage, the elderly understand and feel that they really are approaching the end of life. Death becomes an actual problem, and the elderly *face tough questions about how* they have lived their lives and what is the meaning of life in this age, what sensations appear during death, there is life after death (Khudoyan, 2010). Based on reflections on these topics, the elderly create concepts of their new self and the remaining lifetime. These concepts can play an essential role in the ageing process and determine the type of self-exhaustion. In this regard, I distinguish two types or strategies of self-exhaustion – passive and active. In the first case, a person feels exhausted (accompanied by anxiety and depression) and resorts to maladaptive defence mechanisms - living in the past, focusing on health outcomes, neurotic or even psychotic reactions, alcohol abuse (Steffens & McQuoid, 2005; Livingston et al., 1997). In the case of active self-exhaustion, older adults *concentrate* on their everyday tasks, set new goals, and achieve them (Khudoyan, 2010).

This stage is ending with complete psychological, social, and biological exhaustion of personality, i.e. the death.

Conclusion

I have tried to build a functional periodisation of human ontogeny. This periodisation has, in my view, several advantages. First, it encompasses the whole life cycle. It considers not only the psychological but also biological and social facts of development. Moreover, the age-specific biological, psychological, and social changes (neoformations) are viewed in unity in the developmental process’s logical chain. It suggests clear criteria for defining the borders of developmental stages. This is an explanatory classification of ages, and it explains the developmental cycles based on their functional meaning.

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Psychological Preparedness of Journalists Covering Emergencies and the Aspects of its Socio-Psychological Impact on Society

Abstract

The article touches upon the need for psychological preparedness of journalists working in emergencies supported by the results of an experiment. During the experiment, we used well-known methods. Our findings suggest that it is necessary to incorporate the programme "Psychological Preparedness of Journalists Covering Emergencies" into the curriculum of those educational institutions where Journalism is taught. It will significantly reduce the risks and the negative impact of emergencies first of all on journalists and then on the audience through the information provided by journalists.

Keywords*: emergencies, psychological preparedness of journalists, personal factors, personal characteristics and socio-psychological preparedness of journalists working in emergencies, perception and transfer of information, research, experience, retesting, professional education program, curriculum.*

Introduction and literature review

The issues of social and psychological preparedness of journalists covering emergencies and developing ways to resolve them are relevant especially today, in the 21st century, when, on the one hand, the number and diversity of emergencies increased, and, on the other hand, much more importance is given to their coverage. In our days, when the "most expensive" product in this "rapidly shrinking" the world is information, when it is possible to not only instantly receive data in any part of the world but also disseminate it, to work in "live" format, quite frequently journalists, not even realising and imagining the subtleties of working in emergencies, its psychological aspects, and specific strict professional rules, often not having the necessary professional and psychological preparedness, do not stand the temptation, make unreasonable steps and get targeted by terrorists, military activists, hostage-takers, thus risking both their own lives and the future article they are going to write, which might be of high importance.

This is why the research covered in the article is more than relevant today, especially when speaking about a country that shares borders with at least two hostile neighbouring

states – within an unsolved conflict – and within the boundaries of which we can still see peaceful civilians and children being shot under armed antagonism. Despite the fact that Armenia is situated in a seismic zone – thus, under a perpetual risk of earthquakes, even with the negative experience of a terror attack at the Parliament causing unprecedented damage to the prospects of the country (October 27, 1999), and though any other situation might be observed as of gravity, for instance, the armed assault and seizure of the Police Patrol Service regiment in Yerevan, Armenia (July 16, 2016), we selected journalists with previous and current work experience in military areas as the target group for the research within the scope of this article: their daily work directly impacts the public mood, and they are also involved in the information war, thus, forming a prevailing mood in the region.

Emergencies are inevitable phenomena, which not only disrupt the natural pace of development of societies but may also leave a deep trace on specific layers of society, thus jeopardising their physical and psychological well-state.

An emergency is a situation in a specific area caused by natural and human-made disasters or other hazardous phenomena which causes loss of life, health detriments, property damage, or environmental damage, behavioural changes both at individual and group levels. The adverse effects at the group level have an impact both on socio-psychological phenomena and on the crowd, which directly affects individuals and groups who are performing professional activities in these conditions. Such situations disrupt both the ordinary course of life for individuals and the population and their professional activity, at the same time affecting their mental condition.

Emergency conditions are characterised by changes in the information structure, social and psychological limitations and presence of danger: an individual is affected by psychological factors, which results in emotional outbursts if he/she is poorly prepared. From a psychological point of view, emergencies are characterised as substantial factors affecting an individual's mental health. They can be healthy and intense, characterised by varying degrees of unexpectedness and scale, and can become both a subjective and objective cause of stress. Emergencies change the psychological side of one's activity by introducing new requirements for a person's adaptation.

Today, as a rule, information about an emergency prevails over coverage of other events. The priority of such information forms the mass consciousness adaptation effect in regards to disasters and the inevitability thereof. As a result of all this, society lacks an adequate perception of safe behaviour in emergencies. However, no society is free of various disasters and emergencies that are unpredictable, uncontrollable, and

unmanageable. In this regards, the psychological preparedness of specialists directly dealing with the public in emergency situations is essential. This mainly refers to specialists who have a particular, broad audience and hold the full range of measures to influence the general public. This may refer to mass media reporters.

The Armenian society pays insufficient attention to the role and meaning of mass media in emergency situations; moreover, the aspect of psychological impact on a journalist covering emergency and the issue of psychological influence spread to the broader public by the affected journalist have not been duly studied yet. In fact, by acting as a social regulator for the public, mass media does not support the socio-psychological stability of society in emergency conditions and does not serve one of their primary objectives – caring for mass consciousness with the help of reporting specialists.

Accordingly, there is a necessity to create a psychological training system for journalists. The psychological preparedness of journalists is particularly crucial, first of all, for ensuring journalists' well-being and for maintaining their harmonious state of mind as very often they need psychological support while working under extreme circumstances.

This is the first-ever attempt in Armenian journalism to identify the psychological preparedness of journalists working in emergencies, as well as the psychological impact of emergency situations on journalists. Likewise, the matter of psychological impact caused by the information provided by journalists to the population is also brought up.

The subject of this research refers to the social and psychological analysis of journalists living and working in times of war, and the people living under the impact of the information flow from those journalists, as well as the conclusions made on the basis of this research with regards to the necessity of introducing social-psychological pieces of training for journalists at emergency situations in the Faculty of Journalism.

As a result of regular meetings with journalists working in various Armenian borderline locations and Nagorno-Karabakh territory and experimental studies, a conclusion has been made that a particular level of psychological preparedness for journalists is strongly required to soften the negative impact transferred onto the society.

In the first stage of the two-phased research, we determined the unique characteristics of journalists working in emergencies. In the second phase, we clarified the degrees of expression of those features and their psychological preparedness, as well as conducted a comparative analysis.

We adopted several principles below for the comprehensive study of the subject matter, which were maintained throughout the study:

a) the methods and tasks used did not hurt the dignity of the journalists

b) mutual respect was maintained

c) the methods have been refined in regards to information

d) the same techniques and methodologies were used with all those participating in the testing, which allowed to compare similar results on various levels

Research Methodology.

The research activities involved 127 journalists working in emergencies, as well as 104 representatives of both the Armenian and Nagorno-Karabakh populations.

To identify the personal characteristic features of the journalists, the R. Kettle test of “Person’s Multi-Functional Research Methods” was applied (16-PF) (1). The test consists of 105 questions.

Likewise, it is assumed that these features must be, to some extent, related to the manifestations of aggression; thus, we used the “Methodology of Diagnosis of Types and Indices of Aggression” by A. Bass and A. Dark (2) within the same research groups.

The analysis shows that in the process of perceiving and transferring information, the person’s characteristics and base features, as well as individual psychophysiological peculiarities, expressed through his temperament, self-affirmation, speech and action peculiarities, play a significant role; similarly, high impact is made by the personal and reactive distress, which are the manifestations of fundamental trust towards people and the world. In order to disclose the existence of these factors, the Ch. D. Spielberg and Yu L. Khanin (3) methods were used.

Taylor’s “Manifest Anxiety Scale” (MAS) (4;5;6), consisting of 50 statements, was also referred to. It was used for the diagnosis of social adaptation and mental conditions of the population in the following border regions of the Republic of Armenia: a) Tavush – Noyemberyan – Ijevan – Berd, b) Vayots Dzor – Khachik, c) Syunik –Sisian, and in the Republic of Nagorno-Karabakh: a) Martakert – Mataghis and b) Qarvatchar regions.

During the research, we considered the subject’s professional experience and age, even though here, we also focused on the average working age and experience.

In the process of using the “Methodology of Diagnosis of Types and Indices of Aggression” by A. Bass and A. Dark (2), we separated five conditional groups, having worked in emergencies; they were the opposition press, the pro-government press, television and online media, newspapers, and investigating journalists. The last group also involved local journalists from the disaster or war zones.

The research analysis states that the residents of the Armenian border communities and the Nagorno-Karabakh have more noticeably reflected average high alarm level. An

extremely high alarm level has not been noted. However, certain anxiety and alarm level could still be noticed.

What is more, as a result of the research, it became clear that there was an individual connection between the personal characteristics and social-psychological preparedness of journalists working in emergencies, the impact of information provided to the public by them, the situational conditions, and the selected strategy of behaviour regulation.

Furthermore, as a result of the studies conducted by Kettle's Person's Multi-Functional Research Method (7), we found out the vividly expressed level of self-assessment and low credulity level with weakened concession.

By grouping the personal factors by intellectual, emotional characteristics, peculiarities of communication and interpersonal relations, we may state that the highest rate is expressed by the manifestation of emotional components, playing a significant role in personal characteristics of journalist in emergencies and their social-psychological preparedness, and in the process of impacting the population with the information provided thereby.

The "Methodology of Diagnosis of Types and Indices of Aggression" by A. Bass and A. Dark helped us understand that the journalists had the highest level of guilt, showing 44.32 per cent as to how the society will understand the information they provided and what kind of reaction there will be. The level of nervousness, showing 34.16 per cent, and speech aggression with 32.6 per cent followed. Further, indicators of the level of suspicion with the 32.2 per cent, indirect aggression with 27.2 per cent, and physical aggression with 20.7 per cent were also quite high. Opposite, the negativity and resentment were on quite a low level. Similarly, the experiment showed that the indices of aggression (specifically speech aggression, sense of guilt, nervousness, personal sense of alarm, fluctuating self-esteem scale) also complicated the activities of journalists working in emergencies causing changes in the level of alarm of the subjects.

As a result of studies through the self-assessment diagnosis methodology by Ch. D. Spielberg and Yu. L. Khanin (3), we get a very highly expressed personal and reactive anxiety. The analysis of the research outcomes shows that the inadequate assessment of journalists working in emergencies and insufficiency of social-psychological preparedness results in "personal and reactive alarm".

Following this experiment, the journalists working in emergencies participated in a programme developed by ourselves on "Social-Psychological Preparedness of Journalists Covering Emergencies". Afterwards, we held a retesting process using the

same methods and methodologies. The retesting showed that certain factors identified in the course of psychological diagnostics were subject to changes in learning the knowledge provided by the programme.

The experiment in question and the outcomes of the retesting serve as proof that after training the journalists with a specific programme, their social-psychological preparedness gets to a level that can already support the fulfilment of the caring function of the profession of journalist. Hence, journalists, first of all, become more protected in emergencies from moral and psychological perspectives. Their articles become more balanced and do not transfer additional negative impact on society.

Conclusion

The results of the scientific analysis and experimental research of personal characteristics of journalists covering emergencies and their socio-psychological preparedness allow us to draw the following conclusions:

1. The issue of personal characteristics and socio-psychological preparedness of journalists working in emergencies is discussed in different situations; different areas of activity are singled out, taking into account the particularities of each emergency, as well as the objective and subjective factors that significantly influence the personal characteristics and socio-psychological preparedness of journalists and their further development. However, the personal attributes of journalists working in emergencies and the issue of their socio-psychological preparedness still need to be studied since the system, as mentioned above of activity puts forward various psychological requirements in the journalistic field of the Republic of Armenia, which, in turn, give rise to specific psychological difficulties, controversies in relations of journalists working in emergencies, as well as in the process of information provision and social adjustment. Personal characteristics and socio-psychological preparedness of journalists working in emergencies are related to individual factors and behavioural manifestations, which influence the interaction of the subject, social behaviour, and manifestations.

2. There is a particular relationship between personal characteristics and socio-psychological preparedness of journalists working in emergencies, the impact of information they provide to the public, situational conditions and the strategy chosen to regulate behaviour.

3. By personal grouping factors by intellectual, emotional features, peculiarities of communication and interpersonal relations, we can state that the highest indicators are reflected by the presence of emotional components, which have a dominant role in

personal characteristics of journalists covering emergencies and their social-psychological preparedness, and in the process of impacting society with the information provided by them. The experiment showed that the indices of aggression (especially the “speech aggression”, “sense of guilt”, “nervousness”, “personal alarm”, the fluctuating scale of “self-esteem”), also make the activities of journalists covering emergencies more difficult, complicate the process of providing public with information, resulting in changes of alarm level of the subjects.

4. The results of the research evidence that the emphasised “communicativeness”, “expressiveness” and certain mildly reflected manifestations are directly connected with several personal factors, as well as with vividly expressed indicators of “nervousness” which cause “speech aggression” and increase the “sense of guilt”.

5. The inadequate assessment of journalists covering emergencies, insufficient level of social-psychological preparedness lead to the state of “anxiety”, “personal and reactive alarm”, “verbal and non-verbal aggression”, thus increasing the indicators of characteristic features of “expressionism”, “control” and “sense of guilt”.

6. Awareness of programme about personal characteristics of journalists covering emergencies and their social-psychological preparedness allow finding methods and ways out. The organisation of training courses, the increase of certain personal factors, as well as decrease of some of them to a certain extent impact journalists’ features of “adaptation”, “collaboration”, and “compromise”. On the other hand, the wide-ranging knowledge thereabout lowers the tendency of creating additional tension in the relations of journalists and society.

7. The retesting showed that some of the factors identified in the course of psycho-diagnosis are subject to correction through the knowledge acquired within the framework of the programme.

The devastating earthquake of December 7, 1988, the terrorist attack on the Armenian National Assembly on October 27, 1999, which left eight people killed, including the National Assembly Speaker, two deputy NA Speakers, Prime Minister, a minister and deputies, the seizure of the Police Regiment in Yerevan on July 26, 2016, which left three police officers killed, as well as other emergencies allow confidently asserting that the Armenian journalistic community is doomed to be ready to act safely in emergencies.

Thus, it is necessary to incorporate the programme “Psychological Preparedness of Journalists Covering Emergencies” into the professional education curriculum, especially in 21st century Armenia, where emergencies are inevitable.

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CHESS AS A SOCIAL VALUE

Abstract

In this changing world, the process of preparing the child for life is getting more and more complicated. This article shows the importance of the ability to learn and the role of chess as a school subject. This article aims to study the benefits of chess in developing social values such as honesty, cooperation, discipline, foresight, and purposefulness. The research was carried out in 2 directions. The first phase of the study was to determine the attitude of stakeholders towards chess as a school subject. The second direction was to study the abilities, skills and values developed with the help of chess- the dates of made survey point the role of chess in developing schoolchildren's thinking. After the analyses, it was apparent that chess promotes the creation and development of children's linguistic-logical and algorithmic thinking, the ability to foresee, influencing the situation, assessing the importance of education by developed imagination and creativity. The involvement of chess in education was an essential step. It is of great importance in the development of our country.

Keywords*: chess, primary school children, attitude, social value, Rokeach's value survey*

Introduction

In this changing world, the process of preparing the child for life is getting more and more complicated. In this situation, the only stable value is the ability to learn. And this ability is promoted by the general education of the Republic of Armenia. In the conditions of current socio-cultural transformation, one needs to be provided with ongoing educational changes. So, it was expected that the involvement of a new subject in education had brought contradictory ideas.

The involvement of chess in education was an essential step. It is of great importance in the development of our country.

Why is chess necessary? It is to make sure that chess is beneficial not only for mind and cognition development (Gershunski, 1991, p. 336) and for teaching children significant features for future life.

Being interested in such kind of problems, stakeholders included in pedagogical processes the initiatives of Chess Academy of Armenia – set up research on the social value of chess as a school subject.

The research was carried out in 2 directions. The first phase of the research was to find out the attitude of stakeholders towards chess as a school subject. The second direction was to study the abilities, skills and values developed with the help of chess.

The elementary school children were chosen to take part in the first phase of the research to determine whether they realise the importance of chess in their cognitive processes. The research was done in May 2014. The standardised model of the interview was used. The model contained multiple-choice questions. The interviewed children were 2-4 grade ones, and the total number was 264. They were from different communities of Yerevan, one big and one small school from each community.

In the second phase, a socio-psychological investigation was done to discover and assess the *means-values* developed by the influence of a chess subject, taking Rokeach's methodology of value theory as a base (Rokeach, 1973, p. 276).

As for the interviewed children's age, the interview was organised using tales and stories that contained important values known by children.

The children were provided with 10 cards with an illustrated story or a tale on each. They were to choose one of them according to importance and priority for them. From the choice of the story, the values important for the children were discovered.

The main objective of the research was to find out the children's preferences of school subjects. So, 43% of the respondents put chess in the top 3 favourite subjects. For 11%, chess is in the first place, and for 5%, it is in the second place, and for 27%, it is in the third place (Diagram 1).

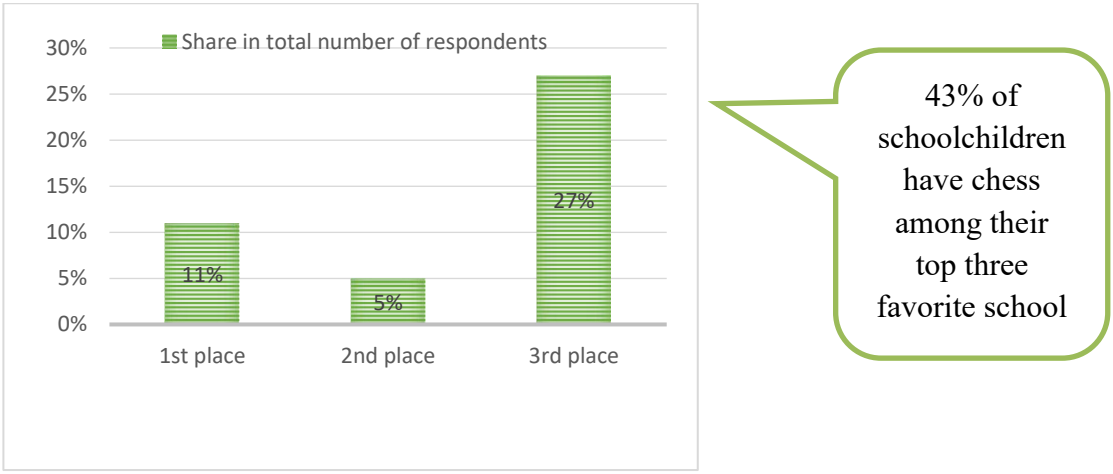


Diagram 1

The fact that children like chess was detectable through the other objective's.

The majority of the responders (88%) liked chess as a subject; boys 85% and 15%, boys 92% and 8%. Love is essential to develop a value, skill (diagrams 2, 3).

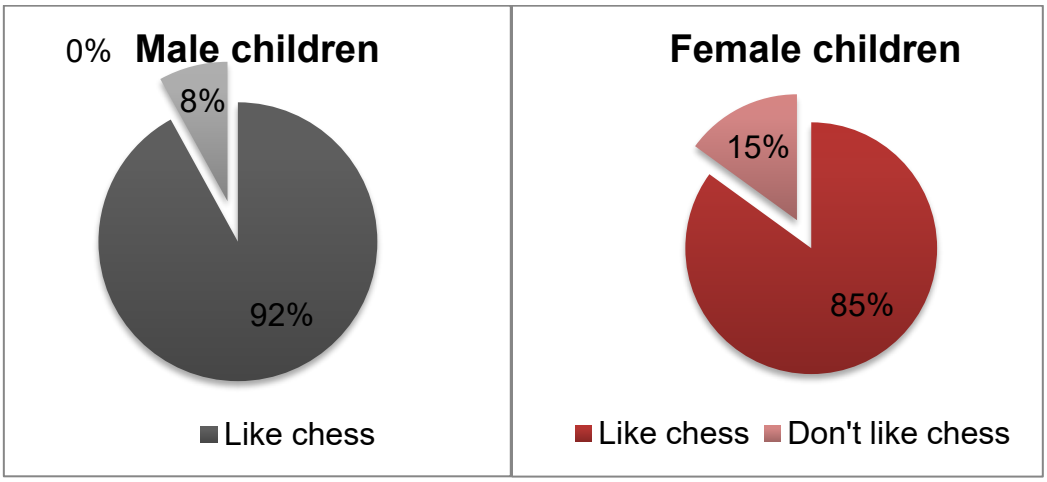


Diagram 2 diagram 3

Having the hypothesis that chess can develop the required values, features for 21st-century children, content analyses were done on the subject standard outcomes, the teachers' manual of chess subject.

After the analyses, it was apparent that chess promotes the creation and development of children's linguistic-logical and algorithmic thinking, foreseeing, influencing the situation, and assessing the importance of education by developing imagination and creativity. Besides, each chess problem is aimed at creating and developing a specific quality, i. e. moderation, active memory, cooperation, etc. (diagram 4). Chess game develops during struggle and struggle develops thinking, teaches to assess, analyse, combine, make good decisions, etc. For example, the first lesson dedicated to the introduction of King's moves aims to understand the final goal of the game. Current problems usually make individuals give up the final goal, and chess helps always to remember individual targets, priorities.

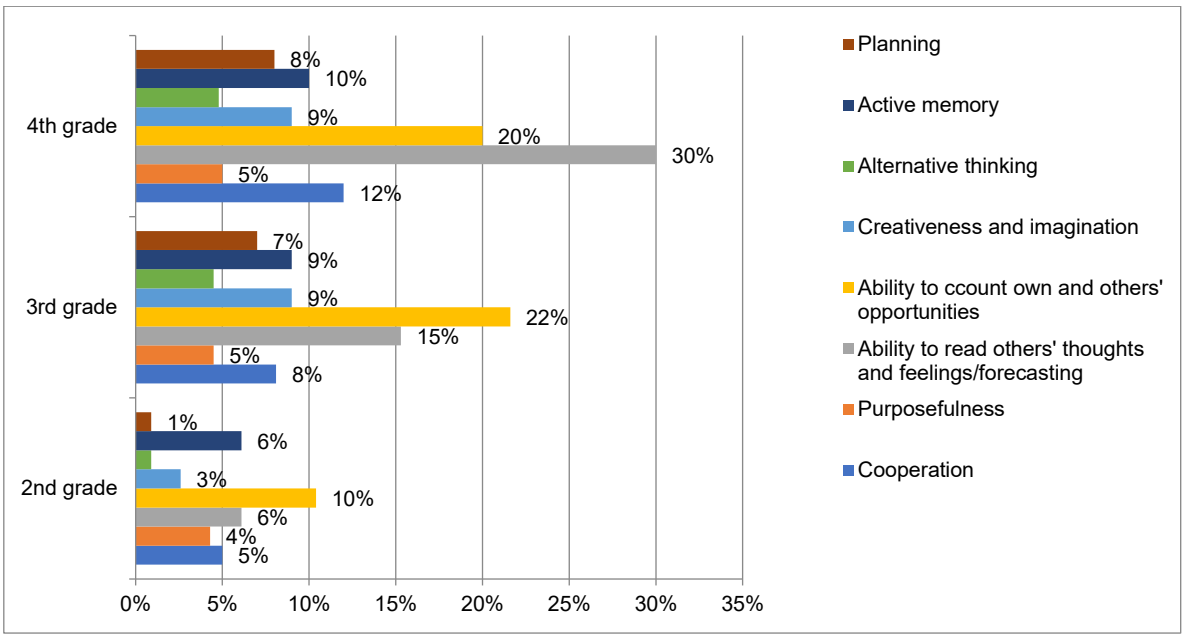


Diagram 4

Let's consider chess problems and diagrams in order to give the children a chance to make alternative solutions. From this point, chess helps to create and develop divergent thinking (Gilford, 1965, p. 45). For instance, Unit 16 in the 3rd grade is a lesson just about thinking and protection and aims to set goals that is one of the essential needs of the current society. It teaches children to react to the situation adequately.

Therefore, we can state that chess develops particular abilities which contribute to the classification of values. In this case, chess is considered to be an instrumental value used for self-perception aimed at being accepted by the family and society.

Chess also makes it possible to create and develop values such as understanding the necessity of working with others, that is to say, cooperation, responsibility, honesty, discipline, farsightedness, and understanding possibilities of different problem solutions.

In order to find out whether these abilities have a specific influence on the classification of values of primary school children, research has been carried out participating 60 schoolchildren from second /20 children /, third /20 children/, fourth /20 children/ grades. They were divided into four subgroups:

Children who have high academic progress in Mathematics, the Armenian Language, and Chess;

Children who have high academic progress in Mathematics and the Armenian language but have low academic progress in Chess;

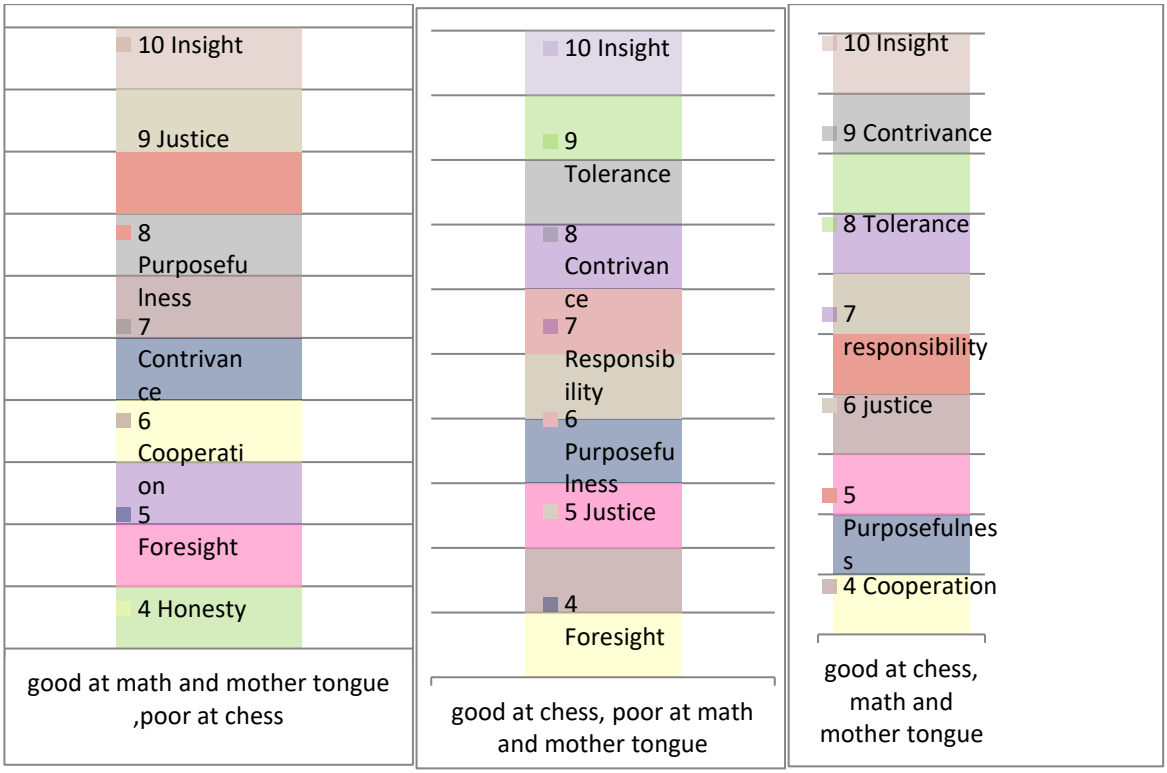
Children who have low academic progress in Mathematics, the Armenian language, and Chess;

Children who have low academic progress in Mathematics, the Armenian Language, but have high academic progress in Chess.

The basis for the latter classification was the fact that academic progress reflects the amount of influence of the understanding of the subject, therefore, behaviour, thinking, etc.

While doing the research, a fact took our attention, that was in each subgroup, a pattern was noticeable; children who solved chess problems easily have a more qualitative cooperation value. After all, we can state that chess subject, mainly particular topics /Unit 21, 37 in the 3rd grade/ really helps to create and develop cooperation interaction between children. Meanwhile, children with low academic progress in chess – have little cooperation in the value system.

In subgroups of children with high academic progress in chess, a high level of attention and concentration is noticeable. Values such as honesty, cooperation, discipline, and purposefulness are the first place for the children (pic. 1).



Pic 1

We can assume from the following that chess subject like Chess game has a royal influence on the development and of royal qualities, the revival of moral values. Moreover, in these subgroups, purposefulness dominates compared with those in other subgroups/purposefulness is in places 5-6, while in the other subgroup, it is in place 8 /. It promotes the development of willpower to win.

From the table, it is obvious one more thing, in the subgroups with high academic progress, foresight is primary, which gives a chance to ally the intolerance in existential situations.

To sum up, for children with high academic progress, the most important values are honesty, cooperation, discipline, foresight, purposefulness. It comes to prove that chess can be a feature developing subject with the help of game activities.

On the other hand, in the subgroups of children with low academic progress, we see uncertainty, absence of orientation of values, which is the result of not regulated thinking, behaviour. Unfortunately, in current reality, these children constitute a considerable number.

For this reason, it is suggested, as probation, discover by monitoring schoolchildren's educational difficulties, and by focusing on the chess progress development fix the possible change also in other subject difficulties.

And also, a secondary school support centre is suggested to be created. Its initial objectives will be cooperation interaction organization for teaching chess successfully, retraining for pedagogical methodology, development of the parent-teacher-child trilateral model. The latter will help to discover problems in secondary education and to react adequately. It’s worth paying attention to the fact that the quality of finesse is in the last place in the value system of interviewed children. It should be mentioned that these features are reflections of flexible thinking and logics. It proves that chess can cause quality change by way of regular and consistent learning. Thus, it is preferable to include chess in the first two years of schooling as it develops stable bases for developing alternative thinking.

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Mariana AVETISYAN

SENSORY INTEGRATION, DESCRIPTION FEATURES AND THE TREATMENT

Abstract

The article describes the problem of "sensory integration", the need to study it, the peculiarities of its manifestation. Attempts are being made to draw professionals' attention to a problem that is often encountered today but is not evaluated or corrected accordingly in either children or adults. The problem is especially acute among schoolchildren. Our observations have shown that this problem may be at the root of negative educational motivation, failure to complete the curriculum, and bad behaviour. In other words, the child has an age-appropriate intellect, educated parents but exhibits bad behaviour or does not manage to educational programs. The work describes the possible signs that occur during sensory integration, as well as the case with the mentioned problem, the direction of the work aimed at overcoming it.

Keywords: *Sensory integration, autism, autism spectrum, sensation, analyzer.*

Introduction

The question of the classification of children's mental problems is problematic all over the world, and any deviation from the norm fits into the diagnosis of "autistic spectrum". If the problem is not clearly diagnosed, then there are difficulties in applying the appropriate correction methods. From a professional point of view, it is wrong to include children with all the incomprehensible symptoms in the autistic spectrum or, as they do in Armenia, to label them autistic, thus leaving the child and his family in uncertainty. For years, our observations have shown that people, having applied to many specialists and centres, have not been able to receive proper professional, corrective therapy. Therefore, this article is dedicated to the partial solution of this problem, which is dedicated to sensory integration, an issue that has not yet found a place in the international classification. This problem is widespread today in both children and adults.

It should be noted that sensory integration, according to the DSM International Classification (Marty & Segal, 2015), is considered one of the characteristics of the autistic spectrum. That is to say, a child is believed to have autism spectrum syndrome if it meets the three main characteristics.

1. If there is a speech disorder

2. There is a dysfunction of sensory integration

3. There is stereotypical behaviour.

In this article, we try to separate only the sensory integration to consider it a separate issue.

The issue of "sensory integration" was first addressed by the American ergo therapist Jean Ayres in the 1950s. His first book, “Emotional Integration and Child”, published in the 1970s, explains the problem in detail. Later, his students continued his work (Ayres J. 2005).

Sensory integration is the regulation of emotions, which must then be applied in some way. Emotions give us information about the physical state of the world around us and the body. Every second, sensory information reaches our brain through five senses, the corresponding receptors. The vestibular system's work is very important, too; it helps a person perceive his own body in space.

Thus, sensory integration (Kranowitz C. S. 2012):

• It is an unconscious process that takes place in the head.

• Organizes the information received through the senses (taste, smell, sound, hearing, sight, touch, human position in space and movements).

• Gives strong senses by processing information, clearing what not to focus on (for example, listening to the teacher, not paying attention to outside noise).

• Helps to act meaningfully and to respond to the situation in which he /she/ is (adaptive response).

• Forms the basis for theoretical teaching and social behaviour (p. 9).

At school, we often meet children who have learning difficulties or even misbehaviour. Such disorders can also often be due to sensory integration dysfunction. This is evidenced by the fact that all over the world it is observed that children behave and learn badly, and their studies show that, for example, the intellect corresponds to the norms of age and they have developed polite parents too. And such a problem can be noticed only by a specialist who understands the difficulty of sensory integration. It is an automatic action for most people, which no one pays attention to, considering that it should be like digestion, breathing, etc. Experts usually notice this when the problem is deepened and complicated. Often the problem is difficult to notice even if, for example, contact with the child is not frequent. Parents can see this, but they usually do not understand what is happening to their child (Ayres J. 2005. p. 8).

Here are some signs to help parents understand if their child has this problem.

Babies with sensory integration during infancy sit, stand, and turn late. Later, they find it difficult to tie the knots and ride a bicycle. It can be manifested by frequent falls or by constantly hitting any part of the body due to poor motor or muscle function. The problem here is not with the muscle or the nerve but with the function of the brain. That is, the information received can not be completed by the brain. In primary school, children with sensory integration disorders have poorly developed play activities. The child is not able to integrate the information that comes from the eyes, ears, hands or body, so he is not able to respond appropriately to what he sees and hears. He misses details or does not understand other people's actions. He is not attracted to games, unlike his peers, and some toys that involve manipulation can be problematic for him. Such children often get injured and break things. Impaired sensory integration can make even the simplest of actions difficult. And one of the most common manifestations of this is a speech disorder. They do not have a hearing problem but usually do not listen to the interlocutor, and the words seem to be lost somewhere. By not receiving clear information from the eyes, hands, and ears, the child performs various actions worse than one might expect, for example, cutting poorly with scissors (Kranowitz C. S. 2012, p. 12).

A is 4 years old, but he still does not speak. His parents turned to me to solve possible psychological problems related to speech. Before that, the parents had been to different specialists, but no one could say why the child did not speak. While working with the child, we noticed that the child picked stones from the sand, chewed them, licked the iron rod, ate the sand while working with beans the grains. While working with the child, we noticed that the child climbed very high places very easily, not always. That is, he lifted his bodyweight very easily. Still, when walking, we noticed an asymmetry of foot and hand movements. He often closed his eyes and opened them. Combining all this, we can see that the child has a dysfunction of sensory integration, that is, the fact that the child chews dirt, sand and stone, is related to the sense of taste.

It should be noted that the mother complained about the food, that the child did not eat soft, slimy food, he refused. Often the strong closing of the eyes is connected with the visual sensation, and the problem with the muscular, big or small motor skills is associated with the corresponding receptors. At first, the child was very disgusted with touching the sand, then we taught him, which is related to the sensation of touch. I think the child also has a problem with the sense of hearing, because of which he cannot understand the words correctly in order to learn the word. After running, he often could not keep his balance, which is a problem with the vestibular system.

In fact, the problem here is not in the senses but in the brain, which must analyze the information received from the senses and integrate it, which is broken in the child. Examining children with different problems, we noticed that this problem, to varying degrees, is present in many children, which does not allow them to adequately perceive, analyze information from the outside world, and respond appropriately. Trying to find the reasons for the event, we noticed that most of them spend a lot of time watching computer games, videos, TV shows. Thus, it can be concluded that the problem is the sedentary life of children, mainly the long viewing of different tablets, which affects both physiology and psyche. It is also very interesting to work on the correction, which is so brilliant, at the same time very simple.

Psychological Intervention

We have carried out psychological intervention to work and activate all the senses as much as possible. Because we think that a child has an emotional hunger, that is why he exhibits strange behaviour from the outside, such as chewing on a stone. In fact, these children have a strong need to feel intense emotions. They have two extremes. They are sometimes very sensitive to external stimuli and sometimes, on the contrary, have no sensitivity. It often confuses adults. They may feel a slight pain from the touch of a light hand, but after a while, they may not feel pain even from a decisive blow. This is again explained by the fact that the brain does not adequately analyze the information received from the muscle. Since the problem is in signal analysis, we think it would be proper to direct strong signals from different analyzers: light, sound, taste, smell, touch, and as much as possible. As well as work with proprioceptors, that is, to affect the muscle, often giving weight to the child and developing the vestibular system. Let's present the work in these directions in more detail.

We used the following method to stimulate the signals received from the **muscles**. We suggested that the child carry weights both during our work and during the day. The goal is for the baby to feel its muscle and gradually gain weight to get a more vital impulse to the brain. Nursing also works effectively here. We take a large piece of cloth and wrap it so that the person can hardly get out of it. Note that the diaper actually gave that feeling; it develops the muscular sensation, helps the person to feel his body. He can also generate tremendous or small motor skills. For this, you need physically active games - running, climbing stairs, jumping. And for the development of small motor skills, you need to actively work with your hands, for which there are games and toys.

To develop **tactility**, you need to work with the child on materials like sand, clay, dough, hydrogel, various granules.

For **hearing,** music therapy should be performed together with efforts of developing the vascular system. This is an organ system in the ear that is responsible for perceiving a person's place in space. That is, if it is poorly developed, the child does not perceive his body in space. If the child does not perceive and feel his body, he can not perceive himself nor another person's boundaries; therefore, he can not keep the border between other people and communicate with them. This also means that he can hit the other person and not realize that he has hurt him. In other words, regular human-to-human communication is conditioned by the healthy operation of this system. And to develop this system, the child needs a lot of swinging. The baby crib, the swing, best contribute to the development of the vestibular system, which in turn affects the development of attention and memory.

For a sense of taste, it is recommended that the child often chew solid foods, cookies and often use sour foods.

For the **smell**, we used materials in the games that contributed to both the development of the corresponding centres of touch and smell. For example, playing with coffee beans

and plastering with ground coffee, playing with cloves, we sometimes used fragrant plants such as cinnamon, mint, nutmeg.

We used colour-light therapy, as well as Isotherapy, to develop our sense of **sight**.

It is also essential to develop self-care skills for the child. Work has also been done in this direction (Cvetkova G.E. 2016).

Feldenkrais method. Feldenkrais is one of the most famous scientists in body-oriented therapy. His approach works very well with children. It seems to be a bridge between the body, or rather the muscle and the brain. Working with this method leads to the fact that the change in the stereotypical action of the muscle in the brain leads to new connections, new activation, which in turn leads to positive changes in human behaviour and psyche. We have seen positive results in correcting sensory integration with this method (Feldenkrais M. 2001, p. 45).

Conclusion

Thus, we think that psychological work with children should include active physical games, but we should approach it literally, consciously, understanding exactly what emotional-cognitive result we expect. Sedentary methods that ostensibly develop attention or memory are not very effective, and the child should do as much physical

activity as possible, sit on a swing, play in the sand to grow up healthy both physically and mentally.

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SECTION 2.

PEDAGOGY

(EDUCATIONAL SCIENCES)

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REPRESENTATIONS OF FAMILY CONCEPT IN SENIOR PRESCHOOL AGE CHILDREN

Abstract

Peculiarities of representations of family concept in senior preschool-age children are considered in the article. The authors of the article define representations as a certain vision of the world and relationships in it that help an individual to adapt to the world around him. According to the authors, the style of child-parent relations has an impact on the formation of a child's ideas about family. As a result of empiric research, the authors come to the conclusion that the personality-centred style of child-parent relationship fosters ideas of positive family relations in senior preschool-age children. The tolerant type of child-parent relations determines the formation of the concept of neutral family relations in older preschool children. The ego-isolated style of child-parent relationships contributes to the formation of negative ideas about family relationships in senior preschool children. The empirical research has shown the predominance of ideas about positive family relationships in senior preschool children. In general, children of senior preschool age include family members, people and animals who live together with the child in the representation of the family, describe joint recreation and pastime, note the care of themselves as a child and characterize the features of emotional relationships between themselves and other family members. All three types of family concepts' representations are manifested both in boys and girls. It is possible to trace the tendency of the predominance of ideas about negative family relations in boys, the predominance of ideas about neutral family relations in girls of senior preschool age.

***Keywords**: representations of family concept, preschool-age children.*

Introduction

Family is one of the main socio-cultural values of society. Family plays a leading role in a person's development into a well-integrated personality, the one who is healthy physically, mentally, socially and spiritually. Preschool age is the age of active development of personality, formation of the image of the world and understanding of

norms and rules of behaviour. Close people provide the foundation for development in the early years of a child's life and create the basis for forming basic values and concepts. Parents play a key role in the formation of preschool children's ideas about family. Changes in dynamics of life and acceleration of all social processes determine transformation in family representations and concepts of family in preschool children. Image of the family is considered as a dynamic form that changes in ontogenesis with age or connection with changes in the actual situation of a child's development. It conveys the subjective, active and holistic nature of a child's experiences of intra-family relationships and includes cognitive and emotional components. The latter is related to attitudes (assessment or self-assessment). The former is related to perceptions of oneself as a family member, other family members, and the family as a whole (Shvedovskaya & Zagvozdkina, 2016, p. 94).

This situation actualizes the problem of family values and family concepts formation in preschool children. The problem of representations, both at individual and group levels, has been considered in detail by S. Moscovici (Moscovici S.,1984). Developing the conceptual framework of E. Durkheim (Andreeva T. V., 2004) regarding individual and collective representations, he created his concept of social representations. The key thesis in S. Moscovici‘s concept is about the world of representations as a certain type of reality that the individual faces in everyday life (Moscovici S.,1984). S. Moscovici notes the crucial role of social representations in the production of social and normative activity of a person while the function of social representations in intra-group interpersonal interaction is “... to determine the field of possible communications, values, or ideas that guide and regulate socially desirable behavior” (Moscovici S.,1984, p. 16-23). French scientist S. Jodelle considers social representations as a specific form of knowledge that connects the subject with the object. The act of representation is understood as the act of thinking that allows the subject to approach the object. The scientist notes that the formation of representations in the subject is considered as a cognitive process or as a product of intra-psychic activity. In fact, the characteristic of the subject includes social and cultural factors that affect the person. However, a subject can be a social community as well, but in this case, social representations should be considered as a product of ideological processes that occur in it. For J. C. Abric, social representation is a functional vision of the world that allows individuals or groups to give meaning to their behaviour, understand reality through their own system of relations, adapt to it and determine their place in it (Abric J.-C., 2003). According to T. P. Emelyanova, social representations of the central core are quite stable and resistant to changes, thus determining the duration

of the process of new representations' formation (Emelyanova T. P., 2007). Social representations are one of the procedures of social thinking and require man's efforts to become adopted. Some views can be blocked, while others are learned automatically. In this case, representations can either be a speculative abstraction or express position or become the basis and support for a person. Categorization and interpretation act as mechanisms for social representations' formation and consolidation via transformation of informational cognitive elements into «representative-figurative», thus contributing to social (group) identity formation. Simultaneously, according to V. Duaz's opinion, social representations play multiple functions of instrumental nature for cognitive activity; they form the basis for the formation of a person's value system and construction of social reality (Duaz V., 1994). According to M. Minigalieva, «representation» is a vast concept and includes explicit and implicit levels as well (Minigalieva M., 2012). Modern researcher of social representations A. A. Rean suggests that social representations should be viewed through social context (Rean A. A., 2015). Thus, representations as elements of social consciousness are formed and changed in the process of a person's social reality cognition, assessment (cognitive processing) of the relevance of social reality facts for his life and based on communicative interaction with others. Further study of the problem in groups of children's and adolescents' immediate environment (parents and teachers) has revealed that parents and teachers understand the threat in a similar way but differ in understanding how to counter it. In particular, in a group of parents, resistance to threat is represented primarily through control and restriction of children's access to threatening information; in a group of teachers, resistance to threat is represented through prohibitions on using new media and principles of child-rearing (Bovina I. B., Budykin S. V., Dvoryanchikov N. V., Gayamova S. Yu., Milekhin A.V., 2017). Preschool age is a stage of a child's mental development between 3 - 7 years. Preschool age makes the beginning for personality comprehensive development and formation. T. N. Sakharova, I. A. Zhuravleva note that a coordinate system of social space and a child's inner world is formed at preschool age. By senior preschool age, the child becomes able to present the desired image of himself in interaction with adults and peers (Zhuravleva I. A., Sakharova T. N., 2018). Based on the research, J. Piaget argued that elementary ideas about family and judgment on what the family should be are formed at preschool age. In this process, the child relies on the existing experience and example of his own family (Piaget J., 2006). We consider family to be a unified system – a small group based on kinship or marriage, associated with one another by common life, mutual assistance and mutual moral responsibility. In society, a man becomes aware of family and family concepts with his

development in ontogeny. We understand representations as a certain generalized system of ideas and images of reality based on personal experience. A family is the primary and main centre of a person's birth and development. A child learns to know the world in the family. A child's behaviour and character are formed in the family and by the family. These qualities are formed in many ways in family socialization; they are determined by styles of family upbringing and peculiarities of interpersonal relations in it (Rean A. A., 2015). Active development of personality, formation of the image of the world and understanding of rules and norms of behaviour occur at preschool age. It is close to people who lay the foundation for development and the basis for forming basic values and concepts. The family's well-being determines what life goals and values will be formed in the child and what family concepts will be laid down. E. G. Eidemiller and V. V. Yustitsky believe that family image depends on a complex of ideas about the behaviour of each family member. In their opinion, family representations are quite stable formations; they influence the perception of family situations and provide a typical response since the understanding of the majority of situations in the form of typical scenarios is formed even before a person encounters them. Such concepts as what a family is, what does good family means, what it is needed for are formed in childhood and serve as guidelines for their families' development and evaluation criteria (Eidemiller E. G., 1999). T. V. Andreeva proposes to present the idea of family in the form of mental models. Which means that the child predicts how events will develop and how other family members will react to his actions before starting to interact (Andreeva T. V., 2004).It is with the perception of objects and phenomena of the surrounding world the knowledge begins. All other forms of cognition: memorization, thinking, and imagination are based on perceived images and result from their processing (Almazova O. V., Bukhalenkova D. A., Veraksa A. N., 2019). As noted by A. V. Ryzhkova, "family image" in preschoolers being a specific component of the "image of the world" phenomenon is characterized by the existence of nuclear and surface levels. These levels are specified in categories that reflect in the form of representations child's ideas about family, its members, their family roles, interests, occupations, traditions, family history, etc., and in the form of emotional attitudes, assessments and motivation for the future establishment of own family (Ryzhkova A.V., 2009). By the end of senior preschool age, children have two images of the family: the image of a normative (ideal) family and the image of their specific family. In this case, the image of an ideal family is based on fiction, cartoons, etc., while the image of a real family is associated with a child's experience in the family. The image of the family in preschool children is a symbiosis of their ideas about the normative family

and their own knowledge and feelings about their own family. At the same time, neither in early preschool age nor in older preschool age, a child uses the image of a normative family to evaluate family relations in their own family. However, the conditions and way of life in the family where the child is being raised form the “foundation» for developing the child's vision of the future family model. Family is an essential element in the development of modern society. It is a social institution that meets the needs of all its members and implements their primary socialization. The family ensures the stability of society and has a global impact on it. It is the family that is the primary and main centre of human birth and development. In the family, the child learns the world for the first time, and his character and behaviour are formed in the family. The family is the source of the formation of a child's ideas about family concepts. Preschool children's ideas about family concepts are quite complex entity and consist of family ideology or family myths, family homeostasis, life scenario, family communications and rules. All these constitute the universal and unique characteristic of family and include ideas about the distribution of responsibilities and functions, ideas about family hierarchy. Therefore, we can say that the child begins to study the world through the prism of characters and behaviour of his immediate environment – his parents.

Problem Statement

What influence do child-parent relationships have on the formation of ideas about family concepts in senior preschool children?

Research Questions

1. What influence does the parental family have on forming senior preschool children's ideas about family concepts?

2. How do types of child-parent relationships affect the formation of children's ideas about the family?

3. How does the child's gender influence ideas about family concepts in senior preschool children?

Purpose of the Study

The aim is to study peculiarities of representations of family concept in senior preschool-age children.

Research Methods

Subjects (cases)

1. Method of video recordings analysis

2. Child-interviewing techniques

3. The family drawing test in the interpretation of G. T. Homentauskas.

4. Parental Relationship Questionnaire by A. Y. Varga and V. V. Stolin.

Method of video recordings analysis

Video records of senior preschool age children discourse about family and family concepts have been analyzed.

Child-interviewing techniques

Interviews with children and video recordings analysis make it possible to reveal peculiarities in representations of family and family concepts.

The family drawing test in the adaptation of G. T. Homentauskas gives detailed information about the family's current situation and shows the child's subjective experiences. This test makes it possible to discover a child's place in family life and how the child perceives other members of his family.

Parental Relationship Questionnaire by A. Ya. Varga and V. V. Stolin. This questionnaire is a unique psychodiagnostic tool that focuses on identifying parental attitudes in adults (the relationship of parents and children) (Rogov E. I., 1996).

Procedure

A total of 120 children aged 5 to 7 (67 boys and 53 girls) and 200 parents of these children participated in the research. The study was conducted in three stages. At the first stage (from September 2019 to December 2019), a review and analysis of literature sources were done, and as a result, research methods were determined, and research design was made. The family drawing test and children interviewing were conducted at the second stage (from January 2020 to March 2020). Content analysis of video recordings was performed as well.

Results

Preschool children's representations about family concepts are formed based on family ideology or family myths, family homeostasis, life scenario and family communications, and rules, both universal and unique, typical for the family and include ideas about the distribution of responsibilities and functions, ideas about family hierarchy. To the study peculiarities of representations about family concepts in senior preschool children, the following techniques were used: 1) The family drawing test in the adaptation of G. T. Homentauskas (Greben' N. F., 2007); 2) Interview "My representation of family"; 3) video recordings analysis; 4) Parental Relationship Questionnaire by A. Ya. Varga and V. V. Stolin. The results of the family drawing test's analysis have shown that preschool children have a favourable family atmosphere, a low level of anxiety, aggression and conflict. Preschool children distort the real family composition in depicting the family,

which may indicate some family situation's peculiarities. Sense of inferiority and hostility in the family is not typical for modern preschoolers. Images of a family on the street or at home predominate in children's drawings. In the contemporary family of a megalopolis, children with their parents find themselves in family and domestic relations and on a walk. It can be noted that children of senior preschool age represent the family through significant adults, through parents. Attention is focused on co-residence, which ensures family unity; attention is also focused on taking care of the children themselves that a preschool child's self-centeredness may determine. Children of senior preschool age note the absolute need for parents who provide security and meet basic needs. Content analysis of video recordings and analysis of conversations with children have shown that modern child represents the family while spending time with parents. At this age, parents often spend time with their children at home or on a walk, take care: prepare food, gather for kindergarten or a walk, give presents. In this regard, the majority of answers are associated with walking, staying at home, maintaining the household; children mention that parents are needed to present gifts and prepare food, teach how to read, take care of children. It has been revealed that children understand the mother's and father's family roles. This is evidenced by the prevalence of responses related to the fact that the mother prepares food, takes care of the family, gather for kindergarten, at the same time the father works, presents gifts and protects the family. Children consider mother, father and grandparents as family members. In several cases, the family includes all relatives. Such concepts as «kindness» and «respect» occupy a special place in children's descriptions of families. Mainly, preschoolers represent kindness by helping people or caring for animals and respect through interaction with other people based on good deeds and helping people.

It should be noted that children are raised in complete families. Parents of children with relatively stable ideas about the family and family concepts demonstrate an average level of acceptance and cooperation with the child, average level of symbiosis and control and low level of attitude to the child as an unreasonable creature. Based on the results of A.Ya. Varga's and V.V. Stolin'sParental Relationship Questionnaire the authors identified styles of family relations: 1) Personality-centered; 2) Tolerant; 3) Ego-isolated. Personality-centred style is characterized by parental acceptance and cooperation, parents' belief in children's success, and small psychological distance in family relations. Tolerant style is characterized by a partial rejection of the child, conflict, predominance of psychological distance, democratic style of control, the parent is sure of the child's failure. The ego-isolated style is characterized by the rejection of the child, conflict, adult's

authoritarian control, the parent is convinced of the child's failure.

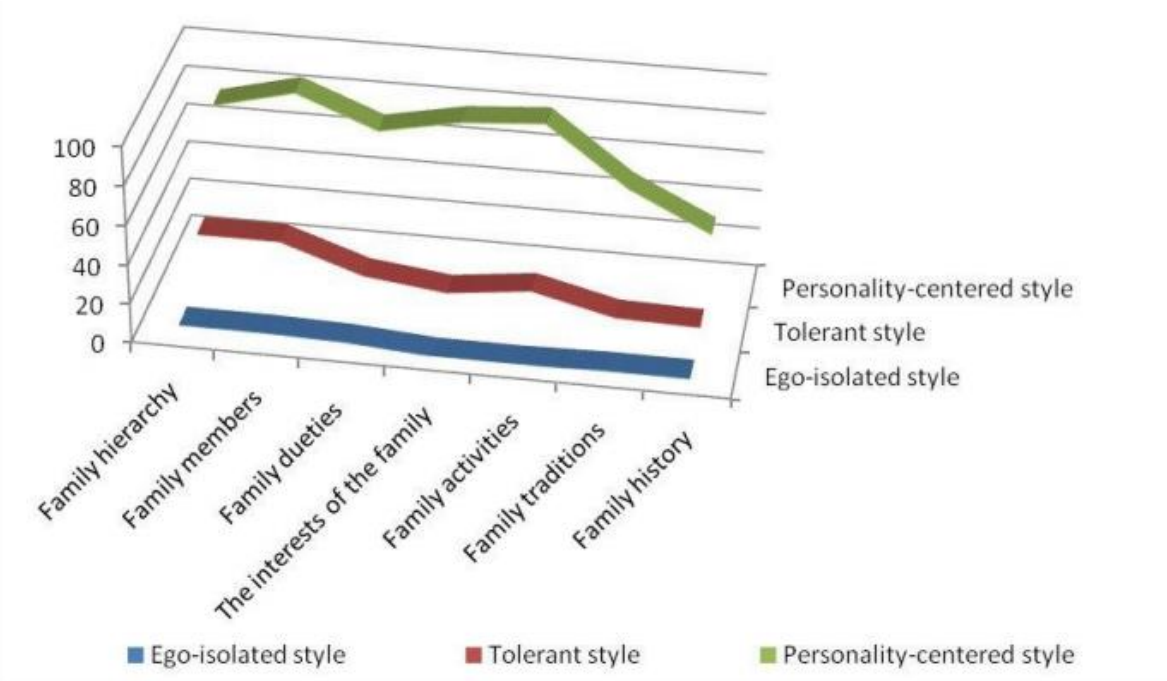

Fig.1. Representations of family concepts and styles of family relations

The personality-centred style of child-parent relations, in which the parent equally develops both themselves and the child, determines the formation of the idea of positive family relations in children of senior preschool age. Representations of positive family relations include a holistic image of all family members, a value attitude for each family member based on respect, and is based on socially approved patterns of behaviour in society and within the family itself. A child with such ideas is well aware of responsibilities in the family and more often perceives them as an opportunity. Older preschool children name with a passion interests and activities of the family. Preschoolers enthusiastically present family stories, think about how they were born, what profession their favourite family members belong to. Ideas about positive family relations are developed in a situation of acceptance and cooperation with parents, when psychological distance in family relations is small and if the parents believe in the child's success. Tolerant style of child-parent relations in which the parent may manifest heterogeneous behaviour and attitude to child's development and actions determines the formation of the idea of neutral family relations in senior preschool children. Ideas about neutral family relations include heterogeneity of family boundaries which may include people from different circles of communication, impersonal nature of relationships and lack of a holistic and systematic attitude to family and family values. A child with such representations is partially aware of

responsibilities in the family. Children of senior preschool age mention different interests and occupations of the family. Preschoolers have little idea of family history. Ideas about neutral family relations are developed in the situation of child's partial rejection, conflict, democratic style of control, the parent is sure of the child's failure. Psychological distance is large. The ego-isolated style of child-parent relations in which the parent may manifest authoritarianism and conflict towards the child's development determines the formation of the idea of negative family relations in older preschool children. Representations of negative family relationships include a discrete image of the family, are based on socially disapproving patterns of behaviour bordering on aggressive verbal and nonverbal manifestations. A child with such representations has a low level of awareness of responsibilities in the family, is not included in the family's interests and activities. Preschoolers have little idea of family history. Ideas about negative family relationships are developed in the situation of child's rejection, conflict, adult's authoritarian control, the parent is sure of the child's failure. In general, both boys and girls demonstrate all three types of representations of family concepts. It is possible to trace a certain tendency of the predominance of ideas about negative family relations in boys, and this can be determined by family relations. Ideas about neutral family relations prevail among girls of senior preschool age, and this may be due to family histories, peculiarities of occupations and interests.

Conclusion

The empirical research reveals the influence of the style of child-parent relations on the formation of certain representations of family concepts in children of senior preschool age. The predominance of ideas about positive family relations in children of senior preschool age has been revealed. A child of senior preschool age includes family composition, people and animals who live together with the child, joint recreation and pastime, care for the child and features of emotional relationships between the child and family members in representations of family concepts.

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ANALYSIS OF PARTICULAR PARAMETERS OF A SOCIAL SITUATION OF THE DEVELOPMENT OF A PRE-SCHOOL AGED CHILD IN CONDITIONS OF THE FAMILY AND PRE-SCHOOL EDUCATION INSTITUTIONS

Abstract

The changing conditions of social development give considerable relevance to a study of parameters of a social situation of the development of the individual at the stage of childhood. The aim of the study: research of characteristics of a social situation of the development of a pre-school aged child at the present stage of society. The study was conducted in the cities of Minsk and Zhlobin (The Republic of Belarus); children of pre-school education institutions (n=100) and their parents (n=28) participated in the study. Diagnostic tools: "Parents composition", "Choice in action", "Stair", "Finish a story", a conversation on three clusters of unfinished sentences. The results of the empirical study revealed a predominance of non-constructive child-parent interaction in the respondents' families. The analysis of a child's position in a group of an education institution generally revealed the existence of a favourable climate in the given subsystem of relations. Preferences in one or another type of interactions are connected with the self-assessment, a position in a group and a level of awareness of ethical norms and values. Optimization of the main parameters of pre-school aged children interaction is a relevant direction of the support of positive socialization.

Keywords*: social situation of child's development; preschool age; types of child-parent interaction; motivation of social interaction; the institution of preschool education*

Introduction

The transformation of social development characteristics is connected with a change of predominant social practices, external and internal components of relations. The overall growth in uncertainty and instability of socialization conditions (A.G. Asmolov, 2017) and an intensive change of parameters of a social situation of the development in

the period of childhood (N.E. Veraksa,2018), (Kolominskii, Ya.; Pan'ko, E.; Chesnokova, E.; Nedvetskaya, T., 2015), (Smirnova, E.O.; Lavrent'eva, T.V., 2006), (D.I. Feldshtein, 2012) are noted.

The description of traditional understanding "a social situation of the development" as a specific for each age relationship between a child and a social environment, intermediating socialisation processes, proposed by the founder of a historic cultural theory L.S. Vygotsky (Vygotskii, L.S.,1984), has been defined. Its parameters are actively affected by characteristics of images "adulthood" (Polivanova, 2016, p. 9), a possibility of enactment of social roles played by a child in various relations (Asmolov, 2016, p. 32), a system of requirements imposed on a child by "world of adults" and the rights given to him by this "world" (Veraksa, N.E.; Veraksa, A.N., 2008, p. 19).

In the context of designated directions of the assessment of a social situation of the development in childhood, empirical studies of its parameters become relevant in the context of a possibility to ensure positive socialization in the period of childhood. Herewith, an essential aspect of the study is the availability of methods that allow hearing "child's voice" as a direct subject of socialization and assess a degree of successful interaction in the main subsystems of relations "child-adult" taking into consideration microenvironments that prevail in a child's life (Gogoberidze, A.G.; Novitskaya, V.A.; Atarova, A.N.; Novikov, M.S.; Yafizova, R.I., 2018).

The Republic of Belarus is among the countries with a high level of education of the population. Full coverage of school preparation for five-year-old children has been reached, a high index of child development at an early age is noted (Belarus' na puti dostizheniya tselei ustoichivogo razvitiy, 2019, p. 11). Uniform standards and a curriculum for pre-school education are developed and approved in the country. According to statistics the pre-school coverage of 1-5-year-old children amounts 79,5% [Belarus' v tsyfrah (Belarus in figures), 2019, p. 17). Therefore, the study of a social situation of pre-school children development in the conditions of the family and a group of a pre-school education institution is relevant in the modern changing world.

Materials and Methods

The research was conducted in order to improve the organization of the educational process; it was agreed with the administration of pre-school education institutions and children's parents, and it was voluntary. The sample of the empirical study comprised middle and older pre-school age educatees of pre-school education institutions (n=100) and their parents (n=28). Diagnostic tools: "Parents composition" (Shvedovskaya, A.A., 2009), "Choice in the action" (Kolominskii Ya.L. and others),1997), "Stair" (V.G. Shchur),

“Finish a story” (Kalinina R.R.,2005), a conversation on three clusters of unfinished sentences “I and my family”, “I and a kindergarten”, “I and other people”.

Results

The analysis of the results of the study included several stages.

1. The selection of parameters of relations “child-adult” in the conditions of the family. Initially, based on the results of methodology “Parents composition” which included 30 unfinished sentences, parameters of interaction “parent-child”, as a characteristic of a social situation of children development in the conditions of the family, were analyzed. Following the results of the empirical study, the uneven presence of all five types of child-parent interaction should be noted: conflict, harmonious, distant and dominant (dependent on the subject of dominance, it is subdivided into the following types: “dominant parent - obedient child”, “dominant child - obedient parent”). The distribution of the child-parent dyad is presented in table 1, following the defined types.

Table 1. Types of parent and child interaction

Type	Pattern of the interaction	% tested
Conflict type	uncoordinated “We”	10,7
Harmonious type	complementary “We”	10,7
Distant type	interaction “near”	10,7
“Parent-dictator”	dominance-submission	39,3
“Child-dictator”	dominance-submission	28,6

As can be seen from the table, there is a predominance of non-constructive child-parent interaction in the respondents’ families: “parent-dictator” (39,3%), “child-dictator” (28,6%), conflict and distant types of interaction (of 10,7% each). It is alarming that a harmonious type prevails only in 10,7% of the families.

A comparative analysis of peculiarities of parents’ compositions shows that there are significant differences in the image of a child and relations with him/her in different types of parent-child interaction. In case of a conflict type, parents are mainly oriented on child’s external characteristics: physical activity, appearance, peculiarities of communication, achievements, they are concerned about physical well-being and child’s disobedience, weak parents’ orientation on emotional – personal properties. Conversely, a harmonious type is characterized by parents’ orientation on positive personal qualities of a child where the most frequently mentioned child’s quality is “kindness”. A child’s independence is essential for a distant type; parents note a high degree of child’s maturity

compared to peers. A subordinate parent notes well-developed communication and will skills, language stimulation and inquisitiveness in a child; parents of this type speak of their concerns about the child's personal development and their inability to interact. A subordinate parent pays less attention to the individual peculiarities of a child, also noting his/ her accordance with norms, distinct qualities of communication and leadership and, to a lesser extent, propensity for sufferings concerning an interaction with a child.

It should be noted that the received distribution of type distinction, in general, corresponds to data previously obtained by developers of the given methodology on the Russian sampling (Shvedovskaya, A.A., 2009), which proves the opinion that parameters of child-parent interaction are relatively stable despite significant changes that have occurred in the sphere of social relations during the past decade.

The analysis of the perception of child-parents interaction on the part of a child was conducted according to the results of a conversation with children based on the cluster of unfinished sentences "I and my family". It should be noted that all the children are satisfied with their families, give the parents positive features (good, kind, friendly, polite, etc.), and say that they love them. Parents are necessary to "feed, bring up, help, save…children". To varying degrees, all the parents spend the time with a child: play, watch TV, read, go for a walk, go on a visit, travel etc. All the children consider that the main pleasure for the parents is the child's achievements (i.e. their own achievements and correspondence to norms). More than half consider that their parents have everything enough, the remaining name as missing resources - material values, time for rest and communication, their obedience, a missing member of the family. At the same time, practically all the children wish to see their future family the same as their parents' family is.

Thus, the priority to traditional family values is revealed among the children, parents act as significant adults, in general children take the existing types of relationships child-parent, at the same time, it can be noted that educational potential of the father is not fully realized (the father is marked as a missing member of the family, not always participating in family interaction).

2. The selection of parameters of relations "child-adult" and "child-peer" in the conditions of an educational institution.

The analysis of the perception of interaction at a pre-school education institution on the part of a child was conducted according to the results of a conversation with children based on the cluster of unfinished sentences "I and other people" and "I and a kindergarten".

It can be noted that both spheres of interaction: "child-adult" and "child-peer" are

almost equally significant for middle and older aged preschoolers. The children note that they prefer to spend their time with peers, admitting that they have friends, including grown-ups (relatives, acquaintances). To an equal degree, they prefer parents and friends as assistance in difficulties and as partners for discussion of important events. All the children indicate positive characteristics in their educators' image, which can explain their positive attitude to them.

Based on children's replies, it can be noted that a pre-school education institution is in general attractive for children: a possibility of interaction with peers, implementation of game and a productive type of activity. An adult (parent, educator and others) is an idealisation object and implements a function of support.

To reveal objective indicators of a child's position in a group of kindergarten, a type of sociometric methodology, "Choice in the action" was used. A position in the system of relationship was interpreted according to data on the respondent's personal development (self-assessment according to method "Stair", awareness of ethical norms and values – "Finish a story").

The analysis of relationships in the studied groups of pre-school education institutions showed that, in general, there is a favorable climate in the given subsystem of relations. Children of the middle and older age are engaged in all types of social interaction with peers; preferences to one or another type of interaction are connected with the self-assessment, a position in a group and a level of awareness of ethical norms and values. Good relations in a group of peers create conditions for children to reveal different types of motivation of social interaction when choosing a partner for concerted actions. Constructive and non-constructive types of motivation of interaction with peers, selected on the basis of an analysis of quality characteristics of choice motives, appeared to be approximately equally expressed (individualism: 24%, competition: 22%, aggression: 4%; cooperation and equality: 20% each, altruism: 10%). In the specificity of a display of a specific type of motivation of social interaction, there are some gender and age differences that correspond to the traditional dynamics of its formation.

Based on percentages of the types of motivation of social interaction, it can be seen that motivation of individualism takes a leading position. It follows that, first of all, the majority of children are eager to satisfy their own interests, motives, get benefits, rather than their partner's motives and furthermore public motives. Thus, social (public) motives and empathy, starting from the middle preschool age, are in the initial development stage. There are some gender differences in the development of motivation of individualism. Children of the middle preschool-age tend to choose a partner for social interaction

depending on material values that the partner possesses, and a child needs or likes (brings new toys, a scooter, a clipboard). Older pre-school-age children also tend to choose a partner depending on the partner's material values that they like. However, in this case, children pay great attention not just to toys but to access to information technologies and equipment (clipboard, computer, machine), which is connected with a higher level of mastery of these types of technology at the given age. Besides the interest in material values, a motive of self-improvement also acts as an individual motive. Most of all, children tend to choose those children who possess the potential to educate, certain abilities to teach something new and help another child to become better. The given motives are seen very clearly among older pre-school aged girls. A tendency where a child's position regarding the motivation of social interaction is formulated under the parents' pressure and is not independently chosen by a child (parents advice to be friends with a partner, as a child is good) was also revealed. Even trying to receive a self-consistent reasoned reply from a child, the child is afraid to make the own assessment and operates with difficulty on own points of view and preferences, which is a negative factor in forming an autonomous personality that can take responsibility for their own actions.

Almost equal to individualism, there is a motive of competition in social interaction (22%). First of all, the display of the given motive is connected with enhanced development of competitive motives at the middle and older pre-school age. A motive of power is observed in the motivation of competition. Herewith, girls and boys want to gain the given power for different purposes. The girls' purpose is simpler – to attract as much peers' attention as it is possible to themselves. The boys' purpose is more substantial and deeper: not just to attract attention but to get peers' approval and recognition. The given fact demonstrates an increasing demand for peers' approval and recognition.

According to the data of the table, a motive of cooperation takes third place (20%). It is most clearly seen among the girls of both groups. In reasoning, the choice of cooperation motivation among the children of the middle pre-school age motives of a moral character is most clearly distinguished, where partners have similar moral values ("ability to help each other, share toys with each other"). The girls of the older pre-school age emphasize the ability to share joy, delight, ability to keep each other's secrets, which shows the importance of trustful interpersonal relationships between partners. At the older pre-school age, these are primarily boys who, choosing a peer in the motivation of cooperation, pay special attention to peer's academic, physical abilities ("do practical tasks together, participate in sports competitions, attend the same section, club"). These

changes indicate the transformation of children's motives, since at the older pre-school age due to necessity to enter school and to master a new social role it is important for a child to show him/herself in other types of activity, the interest grows to positive results of cognitive activity and its high estimation. Also, the cases are observed when a child carries motivation of cooperation over the example from the parent and the peers' parents ("our parents are friends and communicate well with each other that is why we have become friends, too").

Almost on an equal basis, equality motivation follows the motivation of cooperation in social interaction (20%). In the course of the research, a difficulty arose in the division of motivation of cooperation and motivation of equality, in the detection of their essence and distinguishing characteristics. The children's replies often crossed with characteristics of both the motivations; their distinction was achieved due to more detailed questions. Cooperation – collaboration over the common cause, maximization of common, joint winning in the activity, the summation and combination of forces. Equality – achievement of minimum in differences of winning, positions of peers "on equal" where everyone does not compete but chooses their own way of the development. If cooperation is joint participation in a sport race where the main point is a victory of the whole team, then equality is participation in different types of activity in accordance with skills. For example, one member of interaction takes part in a contest of dances, another – in gymnastics competitions where the winning is minimized, and peers can reach the same level of success in different types of activity. In this type of motivation of social interaction, motives of transfer of their experience to peers and vice versa are observed both among boys and girls ("A. goes in for acrobatics, and I practice dancing, but I can't jump so high as A., that is why she teaches me to do it, and I teach dancing"). Along with motivation of equality, the demand for partner's honesty, compliance with rules and justice between them is observed among older pre-school-aged boys. ("he never cheats, plays fair"). Also, the motive of peers' assistance to each other plays a significant role in the motivation of equality.

A motive of altruism appeared to be less noticeable (10%). Besides, specific gender differences are observed in the content of motivation of altruism. There are two tendencies in the reason of altruism of social interaction: empathy and obligation (acceptance of social values). Herewith, the only experience of empathy and assistance to a peer prevail at the middle pre-school age ("I can calm when she is crying, not in a mood, I can cheer a friend up"). At the older pre-school age, the acceptance of social values is formed on the basis of previous experience: "Why am I helping him? Because

it should always be done and there is no need to find reasons. Sometimes it happens so that a man can't admit that he needs help because he is shy" (Misha, seven years old). The development of unselfishness and one of the most important personal quality – the ability to empathy is observed in the motivation of altruism.

Two positions of assistance to a peer were detected in the motivation of altruism of social interaction. The position of a partner, a friend, is more represented among children of the middle pre-school age ("I can calm when she is crying, or cheer up if she is not in a mood"). The position of guardianship, "a teacher," is represented among girls of the older pre-school age ("I help to do homework for school preparation, or he/she will do nothing again").

A motive of aggression appeared to be less distinguished. The motivation of aggression was not detected among the girls but only among the boys. Aggression was also represented in two forms. At the middle pre-school age, aggression is represented in a physical form, and at the older age, it is represented in a verbal form. Herewith, sometimes a child is not aware of the illegality of his/her actions referring to the fact that he is taught by the father and at a taekwondo club, then it means that such actions can be performed practically in any social situation and without reasons in order to show own abilities.

Discussion

The research results make it possible to speak of the availability of different variants of pre-school child's experience of a social situation of the development in the conditions of a family upbringing and attending a group of a pre-school education institution.

The study of the types of child-parents interaction shows relative stability of the family institution in terms of preserving the types of interaction, which have been previously productive even in the conditions of social transformations. The availability of different variants of the social environment facilitates the formation of images of different types of social interaction among children and their transfer into interaction with peers, which is revealed in the motivation of choice in the conditions of education institution.

The results of the research suggest the necessity of organization of targeted psycho-pedagogical support of pre-school aged children in their socialization and acquisition of constructive types of motivation of social interaction in modern social conditions and also the development of a personality in accordance with a motivation type based on the creation of conditions for satisfaction of every child's need for communication and support of social status of childhood.

Conclusions

The parameters of a social situation of the development are an important condition of socialization in the period of childhood. The children's perception of various subsystems of interaction "child-adult", represented in the empirical research, can be generally considered positive. A subsystem "child-peer" is intermediated via wider social influence, and it is also an important aspect of the social situation of the development of a pre-school aged child. Optimization of the main parameters of pre-school children interaction in pre-school educational institutions and the family (in the context of the revealed tendencies) is a relevant direction of the support of positive socialization of pre-school aged children.

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Misha TADEVOSYAN

EDUCATION AT PENITENTIARY INSTITUTIONS IN SOME POST-SOVIET COUNTRIES

Abstract

This article aims to discuss the organization of education for persons held in penitentiary institutions in 4 post-Soviet countries (Armenia, Belarus, Moldova, Ukraine). This discussion focuses on the relevant governing legislation, and approaches related to different education levels in target countries are being reviewed and mapped. The article is based on a review of social-pedagogical literature pertaining to the goals of education in penitentiaries and a study, summary, and analysis of the processes and documents related to the educational programs implemented in the penitentiaries of the mentioned countries.

Keywords: *prison education, post-Soviet countries, re-socialization, andragogy, right to education, access to and accessibility of education*.

Introduction

The main purpose of social-pedagogical work in penitentiaries, including education, has been a separate topic of discussion since the 1800s. Some believe that they should be a useful tool for the offender while serving a sentence, while others claim that the main purpose of organizing educational work in penitentiaries is to rehabilitate a person in order to prevent recidivism. Thus, in fundamental social-pedagogical literature, the following approaches to social pedagogical work in penitentiaries are distinguished:

According to *V. A. Nikitina,* the state's task is not only to punish a person convicted of a crime but, first of all, the rehabilitation and return of a convicted person to society as a socially healthy person/citizen. V. A. Nikitina promotes different forms of pedagogical interaction with persons held in penitentiaries, based on its object (individual, group, mass), the subject (pedagogue, group of teachers, group of convicts, collective of convicts), and the place of the educational process (classroom, club, gym, etc.) as well as according to the use of the dominant method in the educational process (lectures, conversations, exercises, debates, etc.) (Nikitina, V. A., 2000, 154-176). According to *Yu. V. Vasilkova*, the educational process in penitentiaries should take place in four directions: legal, moral, labour, physical and sanitary. An important part of this process is the education in the form of general education or vocational education, which should be

to acquire a specialization by the offender that can be necessary after serving a sentence. The involvement of convicts in the social activities of the correctional facility is also key to rehabilitation. Adoption of particular approaches to rehabilitation of girls and women is emphasized as they have a faster degradation process due to their psychophysiological characteristics (Vasilkova, Yu. V., 2001, 149-151). *M. A. Galaguzova* believes that the essence of the rehabilitation of persons sentenced to imprisonment is a change in a person's social and moral orientations, the assimilation of values established by society, which ultimately contributes to his/her more successful socialization. M. A. Galaguzova emphasizes that the formation and development of pedagogical activities in such institutions is conditioned, first of all, by public needs, and consequently, the state should set a goal for development of law-abiding behavior in every citizen, without which it is impossible to ensure public security and the state system in general (Galaguzova M. A., Mardakhayev L. V.,2002, 149-151). According to *L. V. Mardakhayev* the "activation" of self-education and self-development of convicts has a significant role. It should become a leading process in the whole system of educational activities of convicts. Its primary purpose is to involve a convict in self-education / self-development activities, helping the person to realize the need to overcome his or her own negative traits. "It should be aimed at transforming the object of upbringing to the subject of rehabilitation", this is the whole essence of the educational activity in the correctional institutions. Mardakhayev also considers civic education as one of the main goals of the work carried out in penitentiaries. He singles out three directions of educational work in correctional institutions; correctional-educational, labour-educational, punitive-educational (presupposes correction and re-education according to the criminal code of a given country) (Mardakhayev L. V.,2005, 188-206). *N. F. Basov,* based on the Criminal Procedure Code of the Russian Federation, states that educational work with persons sentenced to imprisonment should aim at correcting them, as well as developing respect for human beings, society, work, norms, rules, traditions, raising their educational and cultural level (Basov N. F., Basova V.M., Kravchenko A.N., 2006, 96-98). *O. V. Botayeva* views a significant part of the educational work in penitentiaries the provision of helpful employment for those serving sentences in the form of work. This approach becomes more relevant considering the fact that the main task of the administrative staff of penitentiaries should be to set up joint ventures in line with market-type structures and to attract third-party investments to create additional jobs (Botayeva O. V.,2011, 158-160).

In the Western system, there are many definitions and approaches to the purpose of education in penitentiaries, which have evolved over time due to various historical events.

Thus, *B. I. Wolford* stated in 1989 that the purpose of education in penitentiaries could be classified into six main areas:

- to provide basic academic and professional skills to detainees,
- to enable prisoners to change their personal behaviour and values,
- to reduce recidivism,
- to ensure passive control over the behaviour of detainees,
- to support the operational needs of the correctional facility,
- to provide institutional work tasks (Wolford, B. I, 1989, 356-368)

D. Werner (1990) believed that the purpose of educating prisoners was to empower an individual, based on the idea that the individual has the potential to be more than he or she is now (while in prison). *M. Umbert and Smith (1991)* considered the goal of education in penitentiaries to be the restoration of the society (Jonathan E. Messemer, Ed.D.,2011) *P. Freyer (1996)* considered that providing education in prisons was a second opportunity for the state to integrate the individual into the logic of the current social system, *S. Taylor (2014)* stated that education can enrich, change and develop a person throughout life, and the goal of education for prisoners is to increase their self-esteem, which will allow them to choose a more constructive way of life (H.L. Poole, 2015). *T. Gehring and C. Egleston (2007),* historians of prison education state that "the conversion of prisons into schools is a historic event in the prison reform process" that began more than two hundred years ago as the "humanistic dream of Western civilization". They conclude that penitentiary education and prison reform share the same goals: to reform prisons and prisoners. According to *R. Coley and P. Barton (2006),* society, of course, suffers from crime, but it will only get worse if these people return to society without work skills; therefore, the aim should be to teach the skills required in the labour market, *R. Hunt* (2010) believes that education is a tool for creating future opportunities for people in penitentiaries (G. Vandala, 2010). *R. Wright* (2008) thinks that the goal of education in many prison systems is to be one of the key elements in the process of change. He emphasizes that prison education is much broader than traditional classroom activities. Although a classroom can provide space for formal education, learning there can occur at different times and in different places, as in the case of other educational processes (C. Behan,2014,20-31).

While the role of education in the process of rehabilitation of prisoners and its efficiency is still a matter of debate among scholars, a large number of studies and theories support the idea that the effective return of a prisoner to society can be achieved by access to a variety of educational programs and initiatives and their effective

organization. By agreeing with the above-mentioned fundamental approaches, we believe that the right to education of those serving sentences is an inalienable right of a person to acquire knowledge, skills and abilities, to develop a positive position/attitude, to normal integration in the society and effective re-socialization on the one hand, and self-realization, self-expression, self-discovery and personal growth on the other hand, regardless of the social status, location and other factors related to the person.

Materials and Methods

The article is based on a review of social-pedagogical literature related to the goals of education in penitentiaries and a study, summary, and analysis of the processes and documents related to the educational programs implemented in the penitentiaries of the mentioned countries.

Results and Discussion

Education at penitentiary institutions in 4 post-soviet countries

Below we will review the prison education practices in some post-Soviet countries. The selection of countries (Armenia, Belarus, Moldova, Ukraine) is conditioned by the fact that those countries are members of the International Network of Penitentiary Education in the Eastern Partnership and Central Asia (2017), which allows having agreed approaches and frameworks to prison education structures. At the same time, the Republic of Armenia, through the Ministry of Justice and partner organizations, in collaboration with the three countries mentioned above, and with the financial support of the German Ministry of Foreign Affairs, has been implementing the project "Active for Education in Prison “since 2018 targeting prison education advocacy, diversity of educational programs in penitentiaries, capacity building, and several other areas related to prison education. In order to carry out a comparative analysis, we will consider the national/domestic regulations for the organization of education in penitentiaries and the educational programs being implemented (International Network of Penitentiary Education in the Eastern Partnership and Central Asia, 2017).

Thus, the educational process carried out in the penitentiaries of the *Republic of Belarus***,** its legislative-practical regulations can be described as progressive, as it has a number of approaches, which are in line with the international standards and approaches in the field. In particular, if we review the policy level, we can see that the right to education is enshrined in the Constitution (Constitution of the Republic of Belarus, 1994, Article 49), and the Law on Education establishes guarantees for the citizen to exercise the right to education (Education Code of the Republic of Belarus, 2011, Article 2). Another progressive aspect is that in Belarusian penitentiaries, convicts have access to computer

equipment with limited usage time because distance learning is considered an effective means of organizing the education of convicts. In this sense, to provide secondary professional, higher and continuing education, special centres are established in penitentiaries connected to the global Internet (with limited access only to the information resources of the official website of the educational institution). Another important aspect is that, depending on the type of the penitentiary, convicts are allowed to have an out-of-penitentiary visit to take entrance exams or current exams, to attend interviews, and intermediate learning, penitentiary-type convicts are also allowed to be transferred from one penitentiary to another with the purpose of obtaining or continuing education (Criminal Executive Code of the Republic of Belarus, 2000, Article 72, part 2). At the same time, there is a certain restriction as the Penitentiary Code does not regulate the education for life prisoners. Still, the penitentiary administration creates conditions for their self-education (Criminal Executive Code of the Republic of Belarus, 2000, Article 173, part 5-1). As for the organization of education itself, general secondary education in Belarus is available to minors and is provided in schools located in the penitentiary: if there are none, secondary or basic education can only be obtained through an externship. Secondary vocational education is provided in vocational schools located within the area of the penitentiary, and if such schools are not available, there is an opportunity to acquire vocational skills /specialization in industrial organizations located in the territory of the penitentiary. The main directions are hairdressing, woodworking, tiling, machine building, stove making, etc. Higher education is provided through special distance learning centres operating in penitentiaries on a paid basis (at the expense of a convicted person). The main directions are psychology, information management, accounting/auditing, economics, etc. Additional and continuing education is mainly implemented in collective educational activities, including educational and enlightenment activities (lectures, thematic discussions, quizzes, etc.). There are also "Re-socialization Schools" in penitentiaries that prepare the convict for release a few months early. The work is carried out both by the penitentiary staff and by other public sectors NGOs (Katcova T.M., Pastushenya A.N., Kasyanenko, 2020).

The educational process in the penitentiaries of the *Republic of Moldova* can be described as individualized. As in the previous case, the right to education is enshrined in the Constitution (Constitution of Moldova, 1994, Article 35). An interesting difference is the fact that the Penitentiary Code envisages personalization and planning of serving a sentence, which implies the application of individual approaches to the person serving a sentence. In this case, educational work, professional training and general education are

considered as a means of correction (Executive Code of the Republic of Moldova, 2004, Article 167). In Moldova, the goal of education in penitentiaries is “. . . to acquaint them with the universal values, to obey the law, to develop useful social skills, as well as to raise the level of consciousness and culture” (Executive Code of the Republic of Moldova, 2004, Article 242). In 2009, the Penitentiary Service of Moldova approved the "Individual Plan for the Execution of Criminal Sentences for Prisoners", based on which, in 2018, a methodology for individual re-socialization plans for juvenile offenders was developed. Individual rehabilitation work for convicts is evidenced by the fact that the following programs are approved and implemented at the policy level: for example, Literacy program, Program for organizing physical education and sports events for convicts, General and vocational training program, Sex Aggressive Behavior Change Program, Active citizenship education program. "How can I live differently?" action plan to reduce juvenile delinquency, Psychosocial program for elderly convicts with disabilities, etc. From the organization of education, general secondary education for minors is organized following a joint decision of the Ministries of Education, Justice and Finance. The current legislation provides measures for adult prisoners if they wish to receive secondary education. At the request of a convicted person, the penitentiary, in collaboration with the local self-government bodies, provides the necessary secondary professional (vocational) conditions and higher education. At the same time, vocational training (Professional training) in penitentiaries is mandatory for getting a job while serving a sentence and preparing themselves for the job market before being released.

It should be noted that they are available for juveniles sentenced to life imprisonment but are not mandatory. These are carried out based on past or temporarily approved programs (accreditation). In the prison education system of Moldova, non-formal programs are implemented in such areas as literacy and social education. Upon entering the penitentiary, the prisoner's level of literacy is assessed, after which, if necessary or at the request of the prisoner, literacy measures are organized. This program includes those convicts who can read and write in other languages. Under social education, positive relations activities are organized, such as developing social skills and communication skills: cultural-aesthetic events (exhibitions, concerts, etc.) are also an important part. In the process of reforms in the penitentiary sphere in 2018, a new specialization was formed to develop spiritual education: teacher of spiritual and moral education. As a result of this change, the issues of moral education and rehabilitation of convicts have been significantly improved. In the case of all the above-mentioned initiatives and programs, some are mandatory. Some are voluntary, depending on the individual re-socialization

plan of the person serving a sentence (Representative Office DVV International in Moldova, 2020).

The right to education in the *Ukrainian People's Republic* is enshrined in the Constitution (Constitution of the Republic of Ukraine, 1996, Article 35). The Penitentiary Code defines certain forms of education that prisoners may have access to while serving their sentences. At the same time, their mechanisms and implementation procedures have not been clarified yet. From the point of view of the organization of education, general education is carried out by an educational institution located in the territory penitentiary, and professional education is carried out in two ways: in the form of training in vocational and technical centres and the workshop of the institution. Such centres are certified state vocational education institutions of the first or second level, which carry out preliminary professional training, preparation and retraining of persons sentenced to imprisonment. Convicts can also receive higher education through distance learning, but existing regulations provide little precondition for higher education access. An essential part of the formal education process is the evening (boarding) schools that take the form of evening school classrooms in some cases. As for non-formal and continuing education, the current penitentiary legislation does not provide separate norms directly related to it. Non-formal education among convicts is mainly aimed at social and educational activities, in the particular acquisition of independent life skills, including personal responsibility, drug addiction, family-personal relationships, economic viability, prevention of HIV / AIDS, other sexually transmitted infections, tuberculosis, etc. (Representative Office DVV International in Ukraine, 2020).

In the *Republic of Armenia,* as in the previously mentioned countries, the right to education is considered constitutional, according to which "Everyone has the right to education" (Constitution of the Republic of Armenia, 2015, Article 38). The RA Law on Education does not directly address the education for persons in penitentiaries, but among the principles of the state policy in the field of Education is the access to education, continuity, sequence, relevance to the level of development, requirements and level of readiness so as the state minimum is ensured (Law on Education of the Republic of Armenia, 1999, Article 5, part 2). According to the current Criminal Executive Code, the general and primary vocational education of a detainee or convict, except for juvenile detainees or convicts, may be carried out in the form of external education (Criminal Executive Code of the Republic of Armenia, 2005). Regulations in the penitentiary system provide ample opportunities for the organization of education for convicts, and education legislation, respectively, provides for such opportunities, but with certain limitations. All

education levels are available to all persons held in penitentiaries, regardless of their type of sentence.

In contrast to Belarus, lifers in Armenia participate in educational processes. From the point of view of the organization of education itself, secondary general education is organized in two main ways: general education for minors conducted by the "Legal Education and Rehabilitation Programs Implementation Center" SNCO of the Ministry of Justice of the Republic of Armenia and implemented mainly in the form of group education, and for adults in the "Artik" evening school. General education for adults must be available in only 1 of the 12 penitentiaries where the above-mentioned evening school is located. Secondary vocational and formal vocational education is generally not provided, and postgraduate education is organized on the individual initiative of the convicted person. From the point of view of distance learning, any type of telecommunication means is prohibited in RA penitentiaries. There are restrictions on the application of the mechanisms provided by the education legislation. The educational processes in the RA penitentiaries are mainly informal. The program "Aesthetic education of offenders" is the only stable, continuous, institutional tool in place for convicts (in the form of non-formal training). It has been implemented since 2004 and includes courses in applied arts, foreign languages, business literacy and computer skills training. In the case of all the mentioned initiatives and programs, only minors' general education is compulsory. The others are voluntary, depending on the desire of the person serving a sentence (Representative Office DVV International in Armenia, 2020).

Conclusion

Summarizing the approaches to prison education in the mentioned post-Soviet countries (Armenia, Belarus, Moldova, Ukraine), we can emphasize that:

- In these post-Soviet countries, the right to education is enshrined as a constitutional right. Access to education is one of the fundamental principles of education policy reflected in respective laws on Education.
- Education for penitentiaries is organized at all levels (from general education to postgraduate). In some cases, clear restrictions are depending on the type of punishment; for example, educational programs for lifers are not implemented.
- The processes of organizing education in the penitentiaries of these post-Soviet countries have certain similarities at the level of general education. Still, at the secondary professional, higher and postgraduate levels, the educational processes are organized with different approaches.

- The organization of education and the participation in educational programs and initiatives are mainly carried out at the person's request serving a sentence and are rarely mandatory.
- The prison education system of Belarus is advanced in terms of distance learning. The prison education system of Moldova is more advanced in terms of individualization and approaches.

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APPLICATION OF ARTIFICIAL INTELLIGENCE (NEURAL NETWORKS) IN EDUCATION

Abstract

This article focuses on the use of artificial intelligence in the educational environment. We consider the latest technology, which already plays a huge role for both teachers and students. Currently, there are many systems for the development of training systems, among which artificial neural networks occupy a substantial place. The article presents an example of the use of artificial neural networks, which can play a significant role in developing educational systems.

Keywords: *artificial intelligence, neural networks, learning process, system, e-learning system development*

Introduction

For many years, modern education has remained unchanged against the background of rapid changes in other areas of contemporary society. We can say that the evolution of education lags behind the evolution of society. One of the ways to solve the problems that have arisen is the involvement in the educational process of various technical means, training systems, the use of the Internet.

The development of learning systems is currently a prevalent and rapidly developing type of scientific activity, due to the renewed interest in the use of artificial intelligence technologies in practice, as well as the rapid development of Internet technologies, which provided developers of training systems with powerful new development tools that did not exist before. Such popularity of this area of scientific research has led to the fact that at present, there are a large number of scientific papers on this topic, dozens of training systems have been developed, most of which are, in fact, hypertext documents and cannot claim to be called complete.

Literature review

The birth of AI goes back to the 1950s when John McCarthy organised a two-month workshop at Dartmouth College in the USA. In the workshop proposal, McCarthy used the term artificial intelligence for the first time in 1956 (Russel & Norvig, 2010, p. 17):

The study [of artificial intelligence] is to proceed based on the conjecture that every

aspect of learning or any other feature of intelligence can, in principle, be so precisely described that a machine can be made to simulate it. An attempt will be made to find how to make devices use language, form abstractions and concepts, solve kinds of problems now reserved for humans, and improve themselves.

Baker and Smith (2019) provide a broad definition of AI: “Computers which perform cognitive tasks, usually associated with human minds, particularly learning and problem-solving” (p. 10). They explain that AI does not describe a single technology. It is an umbrella term to describe a range of technologies and methods, such as machine learning, natural language processing, data mining, neural networks or an algorithm.

AI and machine learning are often mentioned in the same breath. Machine learning is a method of AI for supervised and unsupervised classification and profiling, for example, to predict the likelihood of a student to drop out from a course or being admitted to a program or to identify topics in written assignments. Popenici and Kerr (2017) define machine learning “as a subfield of artificial intelligence that includes software able to recognise patterns, make predictions, and apply newly discovered patterns to situations that were not included or covered by their initial design” (p. 2).

The concept of rational agents is central to AI: “An agent is anything that can be viewed as perceiving its environment through sensors and acting upon that environment through actuators” (Russel & Norvig, 2010, p. 34). A vacuum cleaner robot is a straightforward form of an intelligent agent, but things become very complex and open-ended when we think about an automated taxi.

Experts in the field distinguish between weak and strong AI (see Russel & Norvig, 2010, p. 1020) or narrow and general AI (see Baker & Smith, 2019, p. 10). A philosophical question remains whether machines will actually think or even develop consciousness in the future, rather than just simulating thinking and showing rational behaviour. It is unlikely that such strong or general AI will exist shortly. Therefore, we are dealing here with GOFAI (“good old-fashioned AI”, a term coined by the philosopher John Haugeland, 1985) in higher education – in the sense of agents and information systems that act as if they were intelligent.

Given this understanding of AI, what are potential areas of AI applications in education, and higher education in particular? Luckin, Holmes, Griffiths, and Forcier (2016) describe three categories of AI software applications in education that are available today: a) personal tutors, b) intelligent support for collaborative learning, and c) intelligent virtual reality.

Intelligent tutoring systems (ITS) can be used to simulate one-to-one personal

tutoring. Based on learner models, algorithms, and neural networks, they can make decisions about an individual student's learning path and the content to select, provide cognitive scaffolding and help, and engage the student in dialogue. ITS have enormous potential, especially in large-scale distance teaching institutions, which run modules with thousands of students, where one-to-one human tutoring is impossible. A vast array of research shows that learning is a social exercise; interaction and collaboration are at the heart of the learning process (see, for example, Jonassen, Davidson, Collins, Campbell, & Haag, 1995). However, online collaboration has to be facilitated and moderated (Salmon, 2000). AIEd can contribute to collaborative learning by supporting adaptive group formation based on learner models, by promoting online group interaction or by summarising discussions that can be used by a human tutor to guide students towards the aims and objectives of a course. Finally, also drawing on ITS, intelligent virtual reality (IVR) is used to engage and guide students in authentic virtual reality and game-based learning environments. Virtual agents can act as teachers, facilitators or students' peers, for example, in virtual or remote labs (Perez et al., 2017).

With the advancement of AIEd and the availability of (big) student data and learning analytics, Luckin et al. (2016) claim a "[r] enaissance in assessment" (p. 35). AI can provide just-in-time feedback and assessment. Rather than stop-and-test, AIEd can be built into learning activities for an ongoing analysis of student achievement. Algorithms have been used to predict the probability of a student failing an assignment or dropping out of a course with high levels of accuracy (e.g. Bahadir, 2016).

In their recent report, Baker and Smith (2019) approach educational AI tools from three different perspectives; a) learner-facing, b) teacher-facing, and c) system-facing AIEd. Learner-facing AI tools are software that students use to learn a subject matter, i.e. adaptive or 80ptimization learning management systems or ITS. Teacher-facing systems are used to support the teacher and reduce his or her workload by automating tasks such as administration, assessment, feedback and plagiarism detection. AIEd tools also provide insight into the learning progress of students so that the teacher can proactively offer support and guidance where needed. System-facing AIEd is a set of tools that provide administrators and managers information on the institutional level, for example, to monitor attrition patterns across faculties or colleges.

In the context of higher education, we use the concept of the student life-cycle (see Reid, 1995) as a framework to describe the various AI-based services on the broader institutional and administrative level and support the academic teaching and learning process in the narrower sense.

Research question

This paper will attempt to answer two basic queries: What is “neural networks”? – What can offer neural networks used in artificial intelligence in education?

Currently, there are many systems for the development of educational systems, among which the use of artificial neural networks occupies a vital place. Neural networks are computational structures that model simple biological processes commonly associated with processes in the human brain. Adaptable and trainable, they represent parallelized systems capable of learning by analyzing positive and negative impacts. An elementary converter in these networks is the artificial neuron, formal neuron or a neuron, named by analogy with the biological prototype.

The term “neural networks” was formed in the 40s of the XX century among researchers who studied the principles of organization and functioning of biological neural networks. The main results obtained in this area are associated with American researchers W. McCulloch, D. Hebb, F. Rosenblatt, M. Minsky, J. Hopfield, and others.

Interest in neural networks has grown and then faded. Currently, there is an explosion of interest in trained neural networks. The neural network consists of formal neurons (Fig. 1)

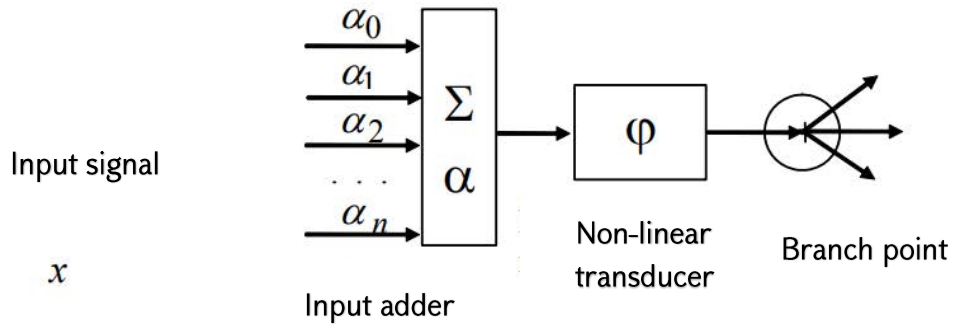

Fig. 1. Formal neuron

The adaptive adder calculates the dot product of the input signal vector x by the parameter vector α. We call it adaptive because of the presence of a vector of adjustable parameters α (vector of synaptic weights of a neuron).

Nonlinear Signal Converter – Receives a scalar input signal x and translates it to ϕ(x).

A branch point is used to send one signal to several addresses. Linear connection – the synapse – does not occur separately from adders. It multiplies the input signal x by

the “synapse weight” α.

Artificial neural networks are already being used to solve many problems: Image classification: The task is to indicate the belonging of an input image (for example, a speech signal or a handwritten symbol), represented by a feature vector, to one or more predefined classes. Known applications include letter recognition, speech recognition, electrocardiogram signal classification, blood cell classification.

Clustering / categorization (no teacher). In solving the clustering problem, which is also known as the classification of images of “unsupervised” learning, is not fetch with class labels. The clustering algorithm is based on the similarity of images and places close images into one cluster. There are known cases of using clustering for knowledge extraction, data compression, and data properties exploration.

Function approximation. Suppose we have a training set ((x1, y1), (x2, y2),…, (xN, yN)) (input-output data pairs), which is generated by an unknown function F (x), distorted by noise. The approximation problem is to find an estimate for the unknown function F (x). Function approximation is essential for solving numerous engineering and scientific modelling problems.

Prediction / forecast. Let k discrete samples {y (t1), y (t2), …, y {tk)} be given at successive times t1, t2, …, tk-: The problem is to predict the value of y (tk + 1) at some future time tk + 1. The prediction/forecast has a significant influence on decision making in business, science and technology. Stock price prediction and weather forecasting are typical applications of the prediction/forecasting technique.

Optimization. Numerous mathematics, statistics, engineering, science, medicine, and economics can be considered optimization problems. The 82ptimization algorithm’s task is to find a solution that satisfies the system of constraints and maximizes or minimizes the objective function. The famous travelling salesman problem is a classic example of an optimization problem.

Content-addressable memory. In the Von Neumann computation model, memory access is available only through an address that does not depend on the memory contents. Moreover, if an error is made in calculating the address, then utterly different information can be found. Associative memory, or content-addressable memory, is accessed by specifying a given content. Memory contents can be recalled even on partial input or garbled contents. Associative memory is highly desirable when creating multimedia information databases.

Management. Consider a dynamical system defined by the set {u (t), y (t)}, where u(t) is the input control action, and y(t) is the output of the system at time t. In control

systems with a reference model, the purpose of control is to calculate such an input action u (t) in which the system follows the desired trajectory dictated by the reference model. An example is optimum motor control.

Tasks related to pattern recognition can be applied when building a reference model of a student that meets qualification requirements, assessing the current state (portrait) of a student in the space of features that maximally reflect all aspects of his activity, operational monitoring of the dynamics of a student's portrait, making the necessary management decisions to optimization of the educational process.

The classification problem with guided learning of the network can be interpreted as the problem of recognizing the current state of the student, based on the comparison of the trainee's image presented to the network with the control target sample and mapping the input image to the target output sample, which gives the network information about which class the input sample should be learned to refer to. Clustering images with network learning without control (self-learning), based on grouping data using competition, allows you to select groups (clusters) of learners and analyze the quality of the educational process at various levels.

Today, there is no universal teaching methodology, so the teacher chooses the most acceptable teaching ways based on his own experience, which is not always optimal. As a criterion of effectiveness, we consider the depth of mastery of the subject by the learners, the completeness and strength of the knowledge they have acquired, the level of study of theoretical material and the acquisition of practical skills.

The novelty. To solve this problem, we propose to create a system that would divide a group of trainees into subgroups, depending on the results of the entrance testing. After that, the system offered some effective teaching methodology for each of the subgroups, directing it to the corresponding training layer. At the end of the course, the group is invited to pass the absolute control, "analyzing" the system's results, adjusting the distribution weights for the input testing. The next group of learners was divided into subgroups already under the new weights.

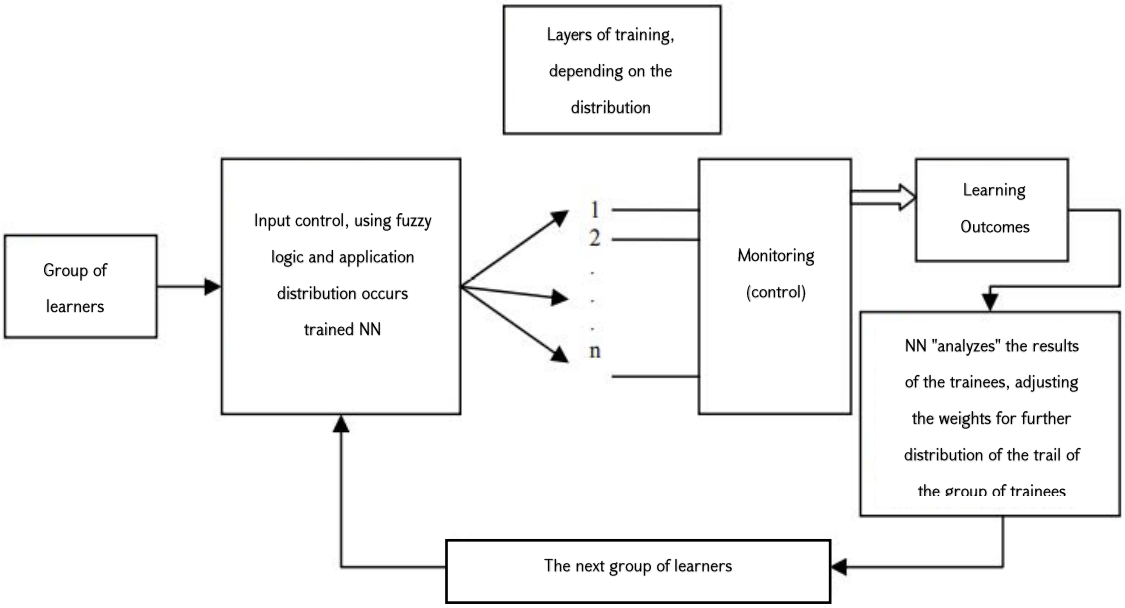

Fig. 2

In this system's design, it is necessary to develop an input testing system, select the architecture and topology of the network, the learning algorithm for the network, the function of activating neurons (for example, "sigmoid"). Let us more detail on the architecture and learning algorithm.

Learning ability is a fundamental property of the brain. In the context of ANN, the learning process can be considered setting up the network architecture and linking weights for the efficient performance of a particular task. Typically, a neural network must adjust the link weights for the available training sample. Network performance improves as the weights are iteratively adjusted.

A network's property to learn from examples makes them more attractive than systems that follow a particular system of rules of operation formulated by experts.

There are three paradigms of learning: "with a teacher", "without a teacher" (self-study) and mixed. In the first case, the neural network has the correct answers (network outputs) for each input example. The weights are adjusted so that the network produces responses as close as possible to the known correct answers. Unsupervised learning does not require knowing the correct answers for each example of a training set. In this case, the internal structure of the data or the correlations between the samples in the data system is revealed, which allows you to categorize the samples. In blended learning, some weights are determined through supervised learning, while the rest is obtained through self-learning. There are four main types of learning rules: error correction, Boltzmann machine, Hebb rule, and competition learning.

Rule of error correction. In supervised learning, each input example is given the desired output d. The actual output of the network may not match the desired one. The principle of error correction during training is to use signal (d-y) to modify the weights to reduce the error gradually. Learning takes place only when the perceptron is wrong.

Boltzmann's training. The goal of Boltzmann training is to adjust the weights so that the visible neurons' states satisfy the desired probability distribution. Boltzmann training can be considered a special case of error correction, in which the error is understood as the discrepancy between the state correlations in two modes.

Hebb's rule. The oldest teaching rule is Hebb's teaching postulate. Hebb relied on the following neurophysiological observations: if neurons on both sides of the synapse are fired simultaneously and regularly, then the strength of the synaptic connection increases. An essential feature of this rule is that the change in synaptic weight depends only on the activity of neurons that are connected by a given synapse.

Competition training. Unlike Hebb learning, in which multiple output neurons can be fired simultaneously, in competitive learning, the output neurons compete with each other for firing. This phenomenon is generally known as "winner-take-all." Similar learning takes place in biological neural networks (Tab 1.).

Paradigm	Teaching rule	Architecture
With teacher	Error correction	Single and multilayer perceptron
	Boltzmann	Recurrent
	Hebb	Multilayer feedforward
	Competition	ART network
Mixed	Error correction and competition	RBF network

Table 1. A possible architecture and associated type of training rule for the classification problem

The architecture of a multilayer feedforward network can be applied in our case because it is most suitable for classification problems. A single-layer network is not suitable. The most superficial single-layer neural networks can solve only linearly separable issues, and this limitation is overcome when using multilayer neural networks.

Conclusion. Artificial neural networks are used to classify information in the case of limited, incomplete and non-linear data sources. Neural network technologies are

versatile, and the same program provides an opportunity to work in different areas of knowledge. Such systems do not need to be reprogrammed when changing the composition of the training base. The importance of this feature of neural networks can hardly be overestimated in light of the ever-increasing volume of information. All of the above allows us to say that the introduction of neural network technologies in processing and interpreting information is an important and promising direction in the development of training systems.

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Lilit ANTONYAN

INFORMATIZATION OF EDUCATION. MEDIA EDUCATION AND MEDIA LITERACY

Abstract

Recent studies have shown that education in the 21st century cannot be imagined without using information and communication technologies, digital and media tools. As a result of teachers' training, it has become clear that there is a need to promote teachers, ICTs, media education and media literacy.

The article presents the informatization of education, which will promote the development of professional abilities and skills of teachers, lecturers, raising public awareness and improving the quality of education.

Keywords: *Informatization of education, media education, media literacy, computer literacy, information and communication competence*

Introduction: In modern education, a competency-based approach is gaining popularity, which is understood as implementing educational programs to develop the individual's ability to independently apply, in a specific context, the knowledge and skills acquired in their professional activities.

At present, there is a change in pedagogical paradigms when the primary purpose of the education system is the training of specialists of double competence: on the one hand, strictly connected with the profession, and on the other hand, capable of not only understanding the capabilities of information and communication technologies (ICT) but also using them, adapting to practical tasks, solving specialized problems arising in various fields human activities. Information technologies form the basis for forming general professional competencies of a modern specialist of any profile. Their use is a prerequisite for increasing the effectiveness of education, developing more effective approaches to learning, improving teaching methods.

The modern problem of informatization of the education system consists of creating all the technical conditions for the introduction of computer technology in the educational process and that teachers are mentally prepared to constantly improve their level of competence in the field of information and communication technologies. In this

regard, one of the essential areas is competence-based education in the field of information technology.

1.1. Informatization of education as a factor in the development of society

In the middle of the 20th century, technological progress and the growing dynamism of life led, on the one hand, to an increase in the needs of people in effective education, and on the other, to new methods of obtaining it. In the context of a significant restructuring of the baking education system, strengthening educational institutions' independence, the nascent variety of types of schools (training school, with specialized training, gymnasium, lyceum and college), the training of specialists has undergone significant changes. The tasks of developing creative potential, cognitive activity, and students' independence, shaping their business qualities and professional mobility have come to the fore. The social order of the company to train professionally competent specialists required a significant change in many components of the training system: goals, objectives, content, methods and organizational forms based on new technologies and training tools. One of the most significant innovative approaches to solving the problem of modernizing the education system and managing educational institutions was the informatization of education.

Informatization of education is the process of providing education with the methodology and practice of developing and optimizing the use of modern information and communication technologies focused on the implementation of the pedagogical and psychological goals of training and education.

Informatization of education is an integral part of informatization of society - the global social process, the peculiarity of which is that the dominant type of activity in the field of social production is the collection, accumulation, processing, storage, transmission, use of information carried out on the basis of modern computer technology and information exchange. The use of information technology can effectively promote students' enthusiasm and improve the active atmosphere of classroom teaching, broaden students' horizons, and enrich teaching contents (Robert, 2014, p. 10).

The informatization of education is regarded as an area of pedagogical science. This includes the subsystems of education and a combination of psychological, pedagogical, social, physiological, technical, scientific, and practical researches, which can create a certain type of integrity, providing the educational sector with the theory, methodology, and practice to perfect and optimize the use of ICT tools in comfortable and health-saving conditions (Gorokhova, 2018, p. 3).

The Concept of the federal target program “Development of Education Informatization” defined strategic directions for the World’s transition to the information society. The majority of citizens created optimal conditions for realizing rights and doubling information needs through the use of information resources. Among them, one of the main ones is the informatization of the entire general and special education system, enhancing the role of qualifications, professionalism, and creativity.

Often, informatization of education means the implementation of information and telecommunication technologies in the educational process. This is really important, having a decisive influence on improving education quality, but not the only area of education informatization. Informatization of education is a broader concept, which is a field of scientific and practical human activity aimed at using information and communication technologies and the means of collecting, storing, processing and optimal use of information, ensuring the systematization of existing and the formation of new knowledge to achieve the goals of training and education.

Informatization of education initiates the subsequent processes:

- improvement of the methodology and strategy for the choice of content, ways and structure varieties of coaching, education, akin to the tasks of developing the temperament of the scholar
- creation of methodological training systems focused on developing the learner's intellectual potential, the formation of skills to independently acquire knowledge, carry out information-educational, experimental research, and other types of information activities.
- improving the management system of the education system based on the use of automated data banks of scientific and pedagogical information, information and teaching materials and communication networks;

Informatization of education includes the following areas:

- creation and development of material and technical base, information and network infrastructure
- development and use of high-quality software and methodological support
- development of a modern approach to improving the effectiveness of training based on new information and communication technologies;
- training specialists with information and pedagogical culture.

The study of problems informatization of education involves using a particular conceptual apparatus, which can basically be considered established. Here are several generally accepted concepts of education informatization.

Means of informatization of education are means of new information technologies (NIT), used together with educational-methodical, normative-technical and organizational-constructive materials, ensuring the implementation of optimal technology and their pedagogically appropriate use. The means of informatization of education are information technology, technical and communication tools, software, psychological and methodological support.

The information-subject environment with built-in elements of teaching technology - a set of conditions conducive to active information interaction between the teacher and the students, focused on the implementation of various types of activities (information-educational, experimental-research) within the framework of specific teaching technology.

The information-subject environment with built-in elements of teaching technology includes means and technologies for collecting, accumulating, storing, processing, transmitting educational information, means for presenting and extracting knowledge, ensuring their interconnection and functioning of organizational structures of pedagogical impact.

Information and educational activity is an activity based on information interaction between students, parents, a teacher and the means of new information technologies aimed at achieving educational goals. At the same time, the following activities are supposed to be performed: registration, collection, accumulation, storage, processing of information about the studied objects, phenomena, processes; transfer of large volumes of data; interactive dialogue; management of real objects, control of the display on the screen of models of various things, phenomena, processes, automated control (self-control) of the results of educational activities and correction according to the effects of control.

Management information systems ensure the flow of information flows between all educational process participants (students, teachers, administration, parents, community).

1.2. Computer literacy, information culture, information and communication competence

The concepts of 'computer literacy' and 'information culture' changed their content at different stages of the development of society and education.

In 1985, the first program of the school course, Fundamentals of Computer Science and Computer Engineering, proclaimed the formation of computer literacy of students, which includes the following components, as the specific educational goal

- the ability to communicate with a computer at a user level,
- compilation of simple computer programs at the level of understanding the basic principles of programming,
- a representation of the device and principles of computer operation;
- an idea of the areas of application and capabilities of computers, the social consequences of computerization.

A year after the publication of the first program, it became clear that teaching computer science goals cannot be strictly limited by computer literacy, and the goals themselves must be expanded. In the second program, lines of computer modelling and information technology were added. The following components were introduced into the concept of "computer literacy":

- understanding the device and functioning of the computer
- skills of competent setting tasks arising from practical activities for their solution with the help of computers;
- skills of a formalized description of the tasks, elementary knowledge of the methods of mathematical modelling, the ability to build simple mathematical models of the tasks;
- knowledge of the main algorithmic structures and the ability to apply this knowledge to build algorithms for solving problems according to their mathematical models;
- elementary skills in compiling computer programs according to the constructed algorithm in one of the high-level programming languages;
- understanding the basic principles underlying the functioning of information systems, and the skills of their qualified use to solve practical problems;
- the ability to correctly interpret the results of solving practical problems with computers and accept these results in practical activities.

These requirements, taken in the minimum volume, were the task of achieving the first level of computer literacy. Among those, taken in the maximum volume, were the education of the information culture.

Thus, the first interpretation of "information culture" only expanded the components of computer literacy.

In connection with the early study of computer science, it became possible to systematically use the methods and means of new information technologies in the study of all school subjects. This factor made it possible to redistribute the learning objectives and move from the formation of computer literacy to the formation of the information culture of not only students in general educational institutions but also specialists with higher and professional education.

Since 1995, the term “information culture” has undergone a large number of interpretations. It was interpreted mainly through the ability to purposefully work with information and use computer information technologies, modern technical means and methods to obtain, process and transmit it. The information culture of a member of the modern information society can be defined as a relatively holistic system of professional and general human culture, associated with them in single categories (a culture of thinking, behaviour, communication, and activity) and including the following components:

- acceptance at the personal level of the humanistic value of human information activities;
- a culture of communication and cooperation in the field of computer science and information technology, the use of telecommunications for interpersonal and collective interaction, moral behaviour in the field of information relations;
- competence and free orientation in the field of information technology, flexibility and adaptability of thinking, behaviour, communication and human activities;
- the culture of communication and cooperation in the field of informatics and information technology, the use of telecommunications for interpersonal and collective interaction, moral behaviour in the field of information relations;
- competence, free orientation in the field of information technology, flexibility and adaptability of thinking;
- prediction of the possible consequences of information activities, professional, social adaptation in constantly updated information conditions;
- the use of ICT for the most effective solution of professional tasks;
- knowledge and implementation of the basic legal norms of regulation of information relations, awareness of responsibility for actions using ICT tools.

From the point of view of training a modern specialist, his information culture includes the following aspects:

- worldview, suggesting awareness of the impact of information technology on the development of modern society and the education system;

- general educational, aimed at mastering the methods of working on a computer using modern software and information technology as a tool for educational and research activities;
- professional, suggesting the effective use of information technology in professional activities.

The basis of the competency-based approach is the idea of the need to move from declarative knowledge as the dominant characteristic to the transfer of experience, the formation of abilities and personal qualities of the totality, that is, competence (Kuznitsov, 2015, p. 27).

According to the competency-based approach, the primary information and communication competencies of a modern specialist are:

- competence in the field of information and analytical activities;
- understanding the role of information in human life and society;
- knowledge of the basic interpretations of information, their influence on the formation of a modern picture of the world;
- the ability to take into account the patterns of practice of information processes of their activities;
- possession of the skills of analysis and evaluation of information from the standpoint of its properties, practical and personal significance;
- competence in the field of cognitive activity: understanding the essence of the information approach in the study of objects of various nature; knowledge of the main stages of system-information analysis; possession of basic intellectual operations, such as analysis, comparison, generalization, synthesis, formalization of information, identification of cause and effect relationships and others; the formation of a certain level of system-analytical, logic-combinatorial and algorithmic thinking styles; the ability to generate ideas and determine the means necessary for their implementation;
- competence in the field of communication: attitudes towards languages (natural, formalized, formal) as a means of communication; understanding of the use of formal languages; knowledge of modern means of communication and the most important characteristics of communication channels; possession of fixed telecommunications facilities; knowledge of ethnic norms of communication and the main provisions of legal informatics;
- technological competence: understanding the essence of the technological approach to the organization of activities; knowledge of the features of automated technologies of information activity; the ability to identify the main stages and operations

in the technology of solving problems, in particular with the help of automation; skills in performing unified operations, which form the basis of various information technologies;

- competence in the field of technical knowledge (technical competence): understanding of the operating principles, capabilities and limitations of technical devices designed for automated information processing, knowledge of the differences between automated and automatic execution of information processes; the ability to evaluate the class of tasks that can be solved using a specific technical device, depending on its main characteristics;
- competence in the field of social activity and generational succession: understanding the need to care for the preservation and enhancement of public information resources; willingness and ability to bear personal responsibility for the accuracy of the information distributed; respect for the rights of others and the ability to assert their rights in matters of personal information security;
- communication competence: understanding the processes of transmission and accumulation of information flowing in networks; the ability to use electronic network resources in professional activities.

1.3. MEDIA EDUCATION AND MEDIA LITERACY

Recently, in addition to the concepts of “information culture” and “information and communication competence”, the terms “media education” and “media literacy” have become widespread.

The term “media” (from Latin media - means) is used as an analogue of the term “mass media” (print, photography, radio, cinema, television, video, multimedia computer systems, the Internet).

As in pedagogical science as a whole, so in media educations, there is no uniform terminology accepted in all countries of the world. As a rule, not only national scientific schools but also individual scientists from different countries offer their own options for formulating such key concepts as “media education”, “media culture”, and “media literacy”. For example, in UNESCO documents, media education is understood as teaching theory and practical skills for mastering modern media of communication, considered as part of a specific and autonomous field in pedagogical theory and practice. Media education is regarded as a process of personal development using and on the basis of mass media (media) to create a culture of communication with the media of creative, communicative abilities, critical thinking, the skills of full perception,

interpretation, analysis and evaluation of media texts, learning various forms of self-expression using media technicians.

The UNESCO recommendation emphasizes that media education is part of every citizen's fundamental right to freedom of expression and information. Along with recognising differences in approaches and the development of media education in different countries, it is recommended that it be introduced wherever possible national curricula, as part of additional non-formal education and self-education throughout a person's life.

Media education is associated with all media types (print and graphic, sound, screen and so on) and various technologies. It makes it possible to understand how mass communication is used in societies, to master the abilities to use media in communication with other people, and provides a person with knowledge of how;

- analyze and critically interpret and create media texts;
- identify the sources of media texts, their political, social, commercial and cultural interests;
- interpret media texts and values shared by the media;
- select the appropriate media to create and disseminate their own media texts and gain the audience's interest in them;
- get the opportunity of free access to media both for perception and products.

Media education can be divided into the following areas:

1. Media education of future professionals in the world of the press, radio, television, cinema, video and the Internet - journalists, editors, directors, producers, actors, camera operators and others;

2. Media education as part of the general education of schoolchildren and students studying in ordinary schools, secondary specialized educational institutions, universities, which, for its part, can be integrated traditional disciplines or autonomous (special, optional, circle, etc.);

3. Media education in the process of advanced training of teachers of universities and schools in courses on media culture;

4. Media education in institutions of additional education and leisure centres (cultural centres, centres of extracurricular work, aesthetic and artistic education, in clubs in the community, etc.);

5. Remote media education of schoolchildren, students and adults using the press, television, radio, video, DVD, the Internet;

6. Independent non-stop media education, which can be carried out throughout a person's life.

Media education provides a methodology for conducting classes based on a problematic, heuristic, game and other productive forms of training that develop the individuality of the student, the independence of his thinking, stimulate his abilities through direct involvement in creative activity, perceptions, interpretation and analysis of the structure of media text, assimilation of knowledge about media culture. At the same time, media education, combining lectures and practical classes, is a kind of inclusion of students in the process of creating a work of media culture; that is, it immerses the audience in the internal laboratory of the main media professions, which is possible both in stand-alone mode and in the process of integration into traditional academic subjects. Pupils and students should study not only how these or those media texts are constructed, but also how they express various political, ideological, economic, sociocultural interests (Henner, 2008, p. 81).

The concept of media literacy originates from the terms "critical vision" and "visual literacy", which have been used concerning on-screen media in the past decades. The terms "technological literacy", "information literacy", and "computer literacy" are also found in the scientific literature. Scientists from different countries (L. Masterman, K. Versnob, A. V. Sharikov, A. V. Spichkin) believe that media literacy is part of a broader and more comprehensive concept of "media education". Most UNESCO experts believe that the following media literacy is most founded: "Media literacy is a movement designed to help people understand, create and appreciate the cultural significance of audiovisual and printed texts. Media literate and individual can analyze, evaluate and create print and electronic media texts. "

In this case, the following principles of media education should be considered:

1. The central concept of media education is representation: media do not reflect reality but represent it using a system of signs and symbols;

2. Media education is a research process, more a dialogue than a discussion;

3. Education in media education is based on the use of various analytical tools and many new ways of activities in multiple fields;

4. two criteria can assess the effectiveness of media education: the ability of students to apply their critical thinking in new situations and the amount of commitment and motivation they express concerning the media;

5. Media education is a particular area in which knowledge is not simply transmitted by teachers or “revealed” to students. This is the subject of critical research and dialogue, during which teachers and students actively acquire new knowledge.

Media literacy helps students communicate with the media from a critical angle, understanding the importance of media in their lives. The formation of media literacy should provide the learner with the opportunity:

- develop the abilities, knowledge and relationships necessary to analyze how media actively construct reality;
- gain knowledge of the social, cultural, political and economic significance of these designs and the values they dispose of;
- develop a level of assessment and aesthetic perception of media texts;
- decode media texts to recognize and evaluate cultural values, practical significance, ideas contained in them;
- Recognize, analyze and apply a variety of technical uses and the creation of media texts.

Noting what new interactive opportunities for practical and analytical work are opening up for media education in connection with the spread of multimedia technology and the Internet, experts see in this process positive and negative aspects. The positive side is that in the computer class, you can be productively engaged in practical work. Therefore, many conceptual issues (for example, image manipulation) can be studied practically and understandably. On the other hand, such technologies can potentially individualize the process of creating media products, that is, isolate a person from society. Therefore, when teaching, it is assumed that students should study media theses, putting them in an extensive sociocultural context, not to break away from real life, but to participate in it actively.

Conclusions In the future education process will achieve maximum benefits if society can effectively use new information technologies - software and hardware tools and devices that operate based on computer technology, modern means of information exchange systems, providing operations for the collection, accumulation, storage, processing, the transmission of information. In the context of contemporary society's global problems (environmental, social, resource, informational), education should be aimed at comprehensive training of a specialist, their media education and media literacy mastering basic knowledge from various fields. One of the education system's answers to this request of time is the idea of competency-based education, expressed by many experts in the field of education informatization. Therefore, today the place of term

"information culture" is more often used as the term "information and communication competence", which emphasizes that the process of informatization of a society substantially depends on the level of competence of its members in the field of information and communication technology.

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Armenuhi MANUKYAN

FORMATION OF MEDIA LITERACY OF FUTURE MEDIA EDUCATORS

Abstract

The article analyzes the results of a survey of students of the Faculty of Primary Education of Khachatur Abovian Armenian State University in order to find out the level of media competence of the respondents. The data obtained confirm the general trend that usually less than a quarter of students reveal a high level of development of the motivational index of media competence. A significant majority of respondents demonstrate a low level of the motivational index. The analysis of the received data proves that a high degree of media contact frequency and a high level of media competence's motivational index are not directly linked with an ability level to analyze a media text comprehensively. Nevertheless, the levels of evaluation parameters of the audience's media competence to a large extent reflect the ranks of their informational and motivational descriptors. Moreover, it turns out that the high level of the informational index does not necessarily correlate to the level of media competence's evaluation index. On the whole, the survey shows that the media competence of modern students needs to be developed.

***Keywords**: Pedagogical University, Armenia, media literacy, education, students, survey.*

Origins. The students' survey was organized to determine the level of media competence of future teachers with an emphasis on the synthesis of media education and critical thinking. Media competence is defined as a complex of motives, knowledge, skills, abilities, the descriptors of which are the culture of interactive virtual communication, the motives for the formation and development of media literacy, media culture and media criticism that contribute to the choice, use, critical analysis of the functioning of media in society, interpretation, assessment, creation and transmission of media texts in different types and genres (Ashley et al., 2013; Downey et al., 2014; Fantin, 2010; Fedorov, 2003; Korochensky, 2003; Marchessault, 2014; Myasnikova, 2010; Potter, 2014; Soldatova, 2013; Sourbati, 2009; Sparks, 2013; Tsymbalenko et al., 2013; Wilson et al., 2011; Zircon, 2013).

While developing most of the units of questions and assignments, we deliberately chose the close form of a questionnaire. A question was followed by several options to choose. This decision is explained by the fact that most students are, as a rule, not able to provide clear and brief argumentation for their viewpoint on media preferences. The differentiation of media competence levels is based on the classification of media competence levels, those media literacy and media culture. According to it, audiences are offered 5 central units of questions and assignments:

✓ the unit of questions to determine the level of media literacy of students in contact with different types of media;

✓ the unit of questions for determining the motivational level of students' media competence, which affects the choice of connections with the genre, thematic, psychological, therapeutic, emotional, epistemological, moral, intellectual, creative and aesthetic, media texts;

✓ the unit of questions to identify the information level of students' media competence, assuming knowledge of terminology, history and theory of media culture, media education and media criticism;

✓ the unit of analytical tasks for determining the level of interpretation and assessment of students' media competence;

✓ the unit of tasks to determine the activity indicator of students' media competence.

Materials and Methods The following respondents took part in the survey:

✓ 51 student-respondents of the second year of the Faculty of Primary Education of the Armenian State University after Kh. Abovyan, who participated only in the summative experiment;

✓ 39 student-respondents of the fourth year of the Faculty of Primary Education of the Armenian State University participated in summative and formative experiments.

The purpose of determining the level of media literacy of students in contact with different media types was to establish the frequency of their communications with different types of media. The results obtained reflect the degree of respondents' involvement in media culture, media criticism and texts of a media teacher. Each respondent was asked to choose an option characteristic of his contact frequency with the press, television, radio, the Internet, etc.

In determining the level of contact, the following scale was taken into account:

- **high:** respondent’s daily contacts with media texts;

- **medium:** the respondent's contacts with media texts vary from several times a week to a month;
- **low:** rare contacts with the media or complete media isolation.

It is clear that the content of such contacts is affected by media competence's motivational factor. However, according to our hypothesis, such influence is not direct: i.e. single contacts with media do not necessarily mean that a respondent possesses a broad spectrum of media motives and vice versa. The purpose of determining the levels of the motivational index was to identify the most popular among students-media consumers ethical, genre, thematic, psychological, therapeutic, emotional, epistemological, moral, intellectual, aesthetic, functional motives of contact, the most popular among the audience of such reasons of contact with media texts.

While determining the motivational index levels of media competence students-media consumers development, we defined:

- **high level,** as a wide range of genre, emotional, intellectual, creative, psychological, aesthetic and ethical motives, implies the choice of various genres and thematic spectres, including the search for philosophical, intellectual, aesthetic problems, dialogue with the creators of the media text, criticism, identification, sympathy, the expectation of aesthetic impressions, extraction of new information, proof of one's own competence in various fields of media literacy and media culture.
- **medium level**, as a set of the genre, emotional, intellectual, creative, psychological, aesthetic motives, the choice of a reasonably diverse genre and thematic range, the search for educational or research materials without significant evidence of the desire for a philosophical, intellectual, aesthetic dialogue with the creators of the media text.
- **low level** a narrow range of genre, emotional, psychological motives, the choice of a predominantly entertaining genre with a therapeutic effect, the search for intrigue, the lack of aesthetic, intellectual, creative motives for communicating with media texts.

The results achieved help us consider students' actual preferences, take into account the specific media genres and topics that motivate them and have a significant impact on them. These results must be compared with creative assignments to establish students' preferences identified during the study, most specifically. At this stage, students were presented with a list of media genres and features such as press, radio, television, Internet, video games, advertising, marketing, etc., to select the ones they prefer.

The respondents were also presented with a list of psychological, therapeutic, emotional, epistemological, intellectual, creative and aesthetic motives that push them to

contact with media texts. The genre and direction of media functions chosen by the respondents, with a high degree of probability, helped suggest the most important motives for contacts. If a student prefers entertainment or blockbusters, he will most likely choose entertainment and intrigue as the primary motives. The determination of the information index level was aimed at revealing the audience's knowledge of terminology, history and theory of media culture, media education, and media criticism. When determining the levels of the information index of media competence, students were asked 20 questions. Having analyzed the answers, we received the following result:

- ✓ **high level:** 60 % of correct answers;
- ✓ **medium level:** 30 % of correct answers;
- ✓ **low level:** 10 % of correct answers.

Undoubtedly, there is a particular connection between the levels of contact, motivational and informational factors. It is obvious that a student who is not in contact with the media cannot form possession of media literacy or acquire any information about media culture. However, according to our hypothesis, a high level of contact and motivational descriptors of media competence can be combined with a low or medium level of the information index and vice versa. The test results were later confirmed by additional individual analytical and creative tasks. To determine the levels of the index of interpretation and assessment, we worked on the following scale:

- ➢ **high level,** when the analysis of media texts is based on the ability of students to communicate with its author, to analyze and synthesize the Spatio-temporal form of the media text, to understand, interpret and evaluate the author's concept in the context of the structure of the media text, to correlate emotional assessment with conceptual judgment, to transfer this opinion to other types media culture, to link the media text with their own experience and the experience of other media consumers;
- ➢ **medium level** assumes the ability to characterize the behaviour and psychological state of being;
- ➢ **low level** is a naive understanding of the media text, poor knowledge of the media language, incomprehensible opinions expressed, compliance with other views, inability to interpret and evaluate the positions of characters and authors.

We asked the respondents to choose one of three topics for completing the assignments:

1. "Audiovisual media text that impressed me."

2. "Audiovisual media text that influenced my self-esteem or attitude towards other people."

3. "Analysis of a single episode from an impressive media text."

According to the famous media educator Usov (1989), the choice of the topic itself may indirectly indicate the interpretation index's level, the assessment of the respondent's media competence, and respondents usually choose the third option with a higher level of interpretation and assessment parameter. Simultaneously, it is logical to assume that the level of the motivational index of media competence is primarily related to the level of the index of interpretation and assessment. The more varied the motives of students' contacts with the media, the higher the level of interpretation and assessment of their media literacy. When determining the levels of media literacy, that is, the practical skills of creating and transmitting media texts of various types and genres, we took into account the following indicators:

- **high level:** independent skills in creating media texts of different styles and genres;
- **medium level:** practical skills in creating media texts with the help of a teacher, media expert or fellow students;
- **low level:** insufficient practical skills.

The students were asked to complete several practical tasks on creating a video or photo media text. It is noteworthy that the parameter of a high level of activity can be combined with a low or medium level of the index of interpretation and assessment and vice versa.

Results

Table 1. Classification of the Faculty of Primary Education's contact index levels of the Armenian State Pedagogical University after Kh. Abovyan.

Students of the Faculty of Primary Education of Khachatur Abovian Armenian State Pedagogical University			
Levels of contact index	2-course /control group (%)/	4 course /experimental group(%)/	Total
High	63,7	85,7	72,0
Medium	33,7	14,3	26,4
Low	2,6	0,0	1,6

The data in **Table 1** indicate that there is no big difference in the level of media contact between students of two courses, control and experimental groups.

Table 2. Classification of the index of contact levels of students' media literacy development concerning the texts of media critics of students of the Faculty of Primary Education of the Armenian State Pedagogical University after Kh. Abovyan.

Students of the Faculty of Primary Education of Armenian State Pedagogical University			
Levels of contact index	2-course /control group (%)/	4 course /experimental group(%)/	Total
High	30,4	8,7	9,8
Medium	34,8	43,5	44,2
Low	34,8	47,8	46,0

According to **Table 2,** in general, there is no significant difference in the level of contact with the texts of media criticism between the two courses, the control and experimental groups.

Table 3. Classification of the index of the development of media competence concerning media educational texts of students of the Faculty of Primary Education of the Armenian State Pedagogical University.

Students of the Faculty of Primary Education of Armenian State Pedagogical University			
Levels of contact index	2-course /control group (%)/	4 course /experimental group(%)/	Total
High	1,6	11,1	5,5
Medium	20,4	15,4	18,5
Low	78,0	73,5	76,0

The data in **Table 3** indicate that there is no significant difference between the levels of contact with media educational texts expressed by students of two courses, the control and experimental groups.

Table 4. Classification of the index of motivation for the development of media literacy of students of the Faculty of Primary Education of Khachatur Abovian Armenian State Pedagogical University.

Students of the Faculty of Primary Education of Armenian State Pedagogical University			
Levels of contact index	2-course /control group (%)/	4 course /experimental group(%)/	Total
High	13,8	13,7	12,4
Medium	26,2	22,9	24,7
Low	60,0	63,4	62,9

Table 4 shows a high level of development of the motivational index of students' media literacy, i.e. educational, psychological, creative and research motives for choosing various media texts, the search for aesthetic impressions, new and developing information, are expressed only by 13-14% of students. There are much more respondents with a low level of the motivational index of media literacy – from 60.0% / second-year students / to 63.4% / fourth-year students /, indicating the choice of media texts for entertainment genres and topics, the desire for compensation and psychological "therapy", thrills, relaxation, entertainment and lack of aesthetic, intellectual or creative reasons for contacts with media products.

Table 5. Classification of indices of Khachatur Abovian Armenian State Pedagogical University's Primary Education Faculty's students' awareness level.

Students of the Faculty of Primary Education of Armenian State Pedagogical University			
Levels of contact index	2-course /control group (%)/	4 course /experimental group(%)/	Total
High	3,4	6,8	5,6
Medium	52,2	50,6	48,8
Low	44,4	42,6	45,6

From the data of **Table 5,** it follows that the high level of development of the index of levels of awareness of students is expressed only by 4–7%. There are many more respondents with a low level of media literacy awareness – from 44.4% / second-year students / to 42.6% /fourth-year students /.

Discussion. The validity of our conclusions is confirmed by the study of the Armenian group of media experts, by means of a representative sample, with 1000 respondents in the process. The surveys were conducted annually in three phases from 2014 to 2020. According to the survey results, on average, more than 60% of the Armenian population contact television media texts, i.e. watch television every day. Let's turn to the results of a survey of students' Internet contacts conducted by A. Manukyan, the author of the special training course “Media Education” in Armenia. It becomes evident that in 2014, in terms of the frequency of contacts with media texts, Armenian students outnumber adults by several times. Comparing the above data of our study with the results of studies carried out in Russia and Britain, it can be stated that Armenian youth, in the frequency of contacts with media texts, is significantly inferior to both Russian and British youth. Thus, 89% of adolescents in Russia use the Internet every day (Soldatova, 2013). Similar results were obtained by other Russian (Tsymbalenko et al., 2013), British (Ofcom, 2013) studies of the media behaviour of adolescents and students, and other media studies (Fenton, 2009; Garcia-Ruiz, Ramirez-Garcia, Rodriguez-Rosell, 2014; Hammer, 2011; Hermes et al., 2013; Holt, & von Krogh, 2010).

A comparative analysis of the answers of students of two courses / 2 and 4 / primary education faculties of ASPU- to the question about the frequency of their contacts with media texts showed that, on average, more than 80% of students are active in the media space and are in daily contact with media texts, their authors and by different media consumers. In general, the results of the third stage of our research, which was conducted from 2018 to 2020, correlated with the results of many sociological surveys of Russian and British media educators (Fedorov, 2003; Myasnikova, 2010; Zirkon, 2013; Ofkom, 2013), conducted on much earlier. A comparative analysis of students' answers indicates the degree of demand for printed and audiovisual media texts, and it turned out that up to 8.9% of second-year students and up to 10.9% of fourth-year students have such contacts every day. Nevertheless, as we expected, in both courses, there are students who rarely or never come into contact with media texts, and their number ranges from 33 to 44%. Focus group discussions showed that respondents primarily come into contact with the texts of popular but “amateur” media bloggers who watch top films and computer games. These texts are more straightforward and more transparent for them than

scientific, educational, developing media texts or press media products. As for studying students' contacts with texts on media literacy, we did not find any previously conducted similar studies either in Russia or anywhere else. Before conducting the survey, we considered that second-year students have not yet taken any media literacy course, so the percentage of respondents who have turned to media education texts regularly is deficient. However, the results confirmed our initial expectations, and it turned out that up to 4.2% of second-year students and up to 13.9% of fourth-year students turn to media education texts every day. As we expected, the overwhelming majority of students - 66.4% second-year students and 75.7% fourth-year students, began to turn more often to media content that forms and develops media literacy within the framework of the particular training course “Media Education”(Manukyan, 2017; Muradyan, 2017).

Focus group discussions showed that respondents, first of all, read texts related to computer teaching aids and do not distinguish between media education and computer literacy. Our study confirmed the trends identified in previous studies (Ashley et al., 2013; Downey et al., 2014; Fantin, 2010; Korochensky, 2003; Marchessault, 2014; Myasnikova, 2010; Sparks, 2013; Potter, 2014).

It is noteworthy that, as a rule, less than a quarter of Armenian students demonstrate a high level of the motivational index. Our research results have shown that a high frequency of contacts with the media and a high level of media literacy is not directly related to a comprehensive analysis of media texts. Consequently, knowledge of media terms, theory, and history of media culture, media criticism does not automatically contribute to the development of analytical skills and media literacy formation. A high level of media literacy information was not demonstrated by any student of the two interviewed courses. Still, we found that half of the respondents have an average level of the media literacy index, which indicates certain knowledge in the field of terminology, history and theory of media, obtained as a result of self-education or a special training course "media education”. As for the levels of activity in the development of media literacy, our analysis showed that they are largely similar to the results of previous surveys of Russian and British researchers (Fedorov, 2003; Myasnikova, 2010; Soldatova, 2013; Tsirkon, 2013; Wilson et al., 2011; Tsymbalenko et al., 2013; Surbati, 2009) –when a high level of this parameter appears by about a quarter of the respondents of a similar age group.

Conclusion. As a result of a long-term, multifaceted study, the findings made by us show that modern students' media literacy in terms of motivation, information, interpretation, assessment, and activity should be significantly increased. The development of the above parameters of media literacy, in our opinion, is possible in the

process of media education. Therefore, not only university students but also, to no less extent, schoolchildren need to take media literacy courses. Only then will it be possible to talk about a significant advancement of the UNESCO concept (Wilson et al., 2011) on the synthesis of information and media literacy.

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Arman MANUKYAN

PECULIARITIES OF THE RELATIONSHIP BETWEEN EDUCATION AND THE LABOR MARKET IN THE REPUBLIC OF ARMENIA

Abstract

The article discusses the interrelated relationship between education and the labour market. The balance of the labour market-university system is considered as the main problem. It is substantiated that today, with the state system's management, it is possible to achieve greater efficiency. In the absence of public administration, employers and universities find it difficult to find systematized solutions independently. The article presents some of the most relevant solutions, which are more practical for urgent correction of the situation.

Keywords: *education, economic development, human capital, professional qualification.*

Introduction

Theoretically, some mechanisms showcase how education affects economic growth.

- According to neoclassical growth models, education increases the total volume of people engaged in the workforce, which in its own right increases the productivity levels overall. With that, a higher balanced level of productivity is achieved.
- According to endogenous growth theory, education has an impact on innovative capital and innovative technology growth. Inevitably, doing things more efficiently will bring rapid economic development.

Before the early 2000s, many academic studies and papers dedicated to displaying the positive relationship between a good education and economic development were mainly concentrated on the length of education measured in years. Unfortunately, considering only quantitative variables as quality descriptions and leaving qualitative ones out, the result was simply wrong. That logic would imply that the experience of being a student at the best college for one year is the same as being a student at a mediocre college for one year: which is not valid. According to Eric A. Hanushek, Dennis D. Kimko (2000). Schooling, Labor-Force Quality, and the Growth of Nations, the effect of the number of years studied on the initial model quickly drop into nothing after they plug in

qualitative variables into it. Further studies also strengthen that result, as they take the primary descriptive variable, the qualitative one.

Literature review

Quite a lot of research has been devoted to human capital as a problem of ensuring economic growth. Many scientists, considering the connection between human capital and labour productivity, prioritize the role of education. Ángel de la Fuente (2003) noted that each additional year of study could lead to 3.1% economic growth in the long run. According to Eric A. Hanushek, Dennis D. Kimko (2000), the effect of the number of years studied on the initial model quickly dropped into nothing after they plug in qualitative variables into it . Antip'ev A.G. (2012) proves that in order to create an innovative economy it is necessary to develop an innovative class, which also confirms the need for quality assurance. Luk'janova K.K. (2016) From the analysis of the work, it can be assumed that the state management mainly conditions the positive effect of the solution of the employment problem. According to Astahanova R.A. (2018): It is preferable to invest in education among young people, taking into account the ability to accumulate knowledge. That is, all these changes need to be made starting from the school curriculum.

It turns out that in addition to the number of years, it is necessary to provide a correspondingly high level of education, the successful implementation of which requires the intervention of the state. As knowledge tends to accumulate, it is necessary to direct investments from school upon completing university education. In this article, we will discuss the situation of higher education.

Thus, in the Republic of Armenia, having a situation inconsistent with the above-mentioned coordinating conclusion and varying professional skills, a question arises: How to balance the labour market-university system? How to ensure economic growth through it?

Research methods

During our research, the methodology of sociological survey and cross-comparison of results was used.

Main article

From the claims mentioned above, we can make conclusions on Armenia's educational system. Converting the 10-year school curriculum into 12 years is not effective and sometimes even harmful if no qualitative changes were taken place. A need

arises to compare the difference between the knowledge gained from additional two years and the impact of that knowledge on the economy and the economy's loss after spending extra two years at school, not working. On the other hand, there is an opinion regarding changing the 4-year bachelor's degree program into 2.5 to 6 years, giving the students a choice. A student will gain the same amount of knowledge in a shorter period (of course, assuming a rational student that will choose the perfect period to gain the knowledge as they would in the 4-year period.). On the other hand, there will be students who will opt for the six-year option. This will create an imbalance, which will lead to an even more unbalanced relationship between the labour market and the proposed future employees by profession, which will affect the economic growth rate.

Viewing education as means of capital, we need to mention several aspects.

- Investment in education most definitely has a positive impact in the long run.
- Knowledge has both cumulative and obsolete effects and more.

Employees who realize the need to improve their professional qualifications are ready to invest in it, but not all of them have the time and financial resources. On the other hand, the employers are not so keen on making those investments themselves and instead find a compatible candidate from the labour market, as it is cheaper (given that there is a candidate in the market). The problem lies in the imbalance in the labour market on future candidates, the solution of which will be addressed below.

The cumulative nature of education and skills allows us to create an optimal scheme for investing in this capital type during an individual's life. From an investment perspective, we need to pay close attention to a younger generation, as a good education is a cornerstone for having a competitive professional skillset in the future. Astahanova(2018).

In addition to problems in the educational system, there is a need to provide the employees with appropriate jobs, and first of all, pay attention to ones that require a high skill level. Unfortunately, in the Republic of Armenia, a considerable amount of workforce occupies workplace not according to their qualification, but also in a place that does not correspond with their knowledge and skill. In addition to improving the problems in the field of education, there is also a need for relevant jobs to apply the acquired knowledge according to the goal as effectively as possible. According to the Statistical Yearbook of Armenia, labour resources according to education statistics showcases that in 2018 and 2019, there are 487.3 and 551.5 thousand individuals with higher and postgraduate education in Armenia, respectively. Several questions arise: will there be jobs available in line with the increase in numbers? How many of those jobs will correspond to the

professions of employees? Will the proposed salaries meet the expectations of incoming employees and employees getting a raise?

Why is there an imbalance? In order to answer those questions, we need to take a close look at the following scheme:

University/college admissions followed by educational process and eventually getting hired.

Most school graduates who excelled in their studies, not having a particular profession in mind, go for prestigious universities' most prestigious faculties. Simultaneously, students who did not have excellent academic achievements in school choose less prestigious universities, and students with lesser academic knowledge go with the principle of arbitrary university-arbitrary profession. This logic is the same for most school graduates.

After getting into university, some students drop out due to the educational program's incompatibility or low academic standing. Furthermore, during the employment stage, there are students with specific high professional skills and many low-level students who actually do not meet the respective professional standards.

From the above, it can be concluded that some of this uncertainty and incompatibility with the profession may fade away since this process is a controllable one.

In today's reality, the result mentioned above is very applicable to issues in Armenia. There is a big difference between the labour market needs in terms of quality, the relevance of the relevant profession, and the number of students studying in the relevant domain. There is a need to reform the curriculum to adapt it to the emerging industries in the leading international markets, in accordance with the specialists required within the country. It is evident that it is better to have a fixed, albeit a small number of high-level economists graduates each year in addition to improving the curriculum, who will be immediately transferred to the relevant jobs, than to have several times higher-level middle-level economists, some of whom may work in the future, while others, in the hope of finding a job, change their profession, causing oversaturation in other fields. Involuntarily force future graduates of other fields (mostly not so competitive ones) to change their professional orientation due to the scarcity or lack of jobs in the relevant job market, essentially make the knowledge gained pointless (because very little or not at all) and thus lower investment in education (for that person). For instance, an inefficiency occurs when someone who has studied finances and then narrowed professional skillset to risk management is hired as a sales specialist, which will inevitably create inefficiency

in economic growth in terms of education and lead to a drop in economic growth. This situation will be observable in an optimized system.

The inquiries prove the incompatibility of the labour market requirements and the specialists trained in the educational system. Employers and employees in the fields of education, finance, IT, management and art took part in the survey.

Let's present the most remarkable results.

Question 1 . Are you satisfied with the quality of education of your future employees?

The results of the survey are as follows:

Sphere	Survey employers	Answers	
		Satisfied	Not satisfied
Education	30	25.8%	74.2%
Finance	37	34.6%	65.4%
IT	32	45.6%	54.4%
Management	30	43.7%	56.3%
Art	30	67.3%	32.7%

According to the survey results, it is clear that the employers are not satisfied with the quality of the education of the university graduates in any of the areas identified by our research. This proves that the connection between the labour market and education is not very effective.

The next question was, what exactly is not enough for employers?

The results of the survey were distributed in the following proportions (Table 1).

Sphere	Employers' Responses
Education	The key employers in this field are mostly not satisfied with the level of knowledge of foreign languages, professional knowledge and skills
Finance	Employers in this area stressed the main gap in the graduates' lack of mathematical knowledge, basic international and local financial

	models, knowledge of their functions, skills, graduates lack creativity, low adaptability, and difficulties in foreign language operations in the professional field.
IT	IT is probably the most discussed field. Here the employers mainly complain that the university education is more theoretical, the graduates do not have practical skills. Simultaneously, the following is more problematic in this area. The world is becoming more universal. Graduates must have enough flexibility to acquire new technical knowledge and acquire new skills quickly. Add to this the insufficient knowledge of foreign languages
Management	Employers see problems in management. Graduates of this profession are also armed with theoretical knowledge, lack practical skills and abilities. Problems arise, especially when graduates in the management process encounter cooperation with foreign organizations. Graduates lack the flexibility of thought, adaptability, the ability to cooperate with foreign nations, states, which cause problems in building management. Knowledge of several foreign languages is also very important here, which is also not considered sufficient by the surveyed employers.
Art	It is probably the only art in the observed spheres in which the employers were more or less satisfied, but there are also many problems here. Employers' grievances were mainly since artists kept their distance from the modern technological world, which sometimes causes problems, especially when it is necessary to use a technological solution or software.

Table 1 . Employers' answers

The presented results are only a part of the existing problems. The next most problematic issue in the labour market-education chain is wages. It is also necessary to consider whether highly qualified specialists, being employed in their profession, are satisfied with the offered salary. We also surveyed to find out this problem. Present the results (Table 2.) .

Sphere	Number of specialists	Responses	
		Satisfied	Not satisfied
Education	40	27.4%	72.6%
Finance	35	36.6%	63.4%
IT	40	46.9%	53.1%
Management	32	41.8%	58.2%
Art	36	26.2%	73.8%

Commenting on the survey results, we should mention that the most satisfied with the salary are the employees in the field of IT, and the most dissatisfaction comes from the employees in the field of education. As stated by the Republic of Armenia State Statistical Service, this is realistic since the expenditures on education and science in relation to GDP have a steadily decreasing rate (fig. 1) (Statistical Committee of the Republic of Armenia).

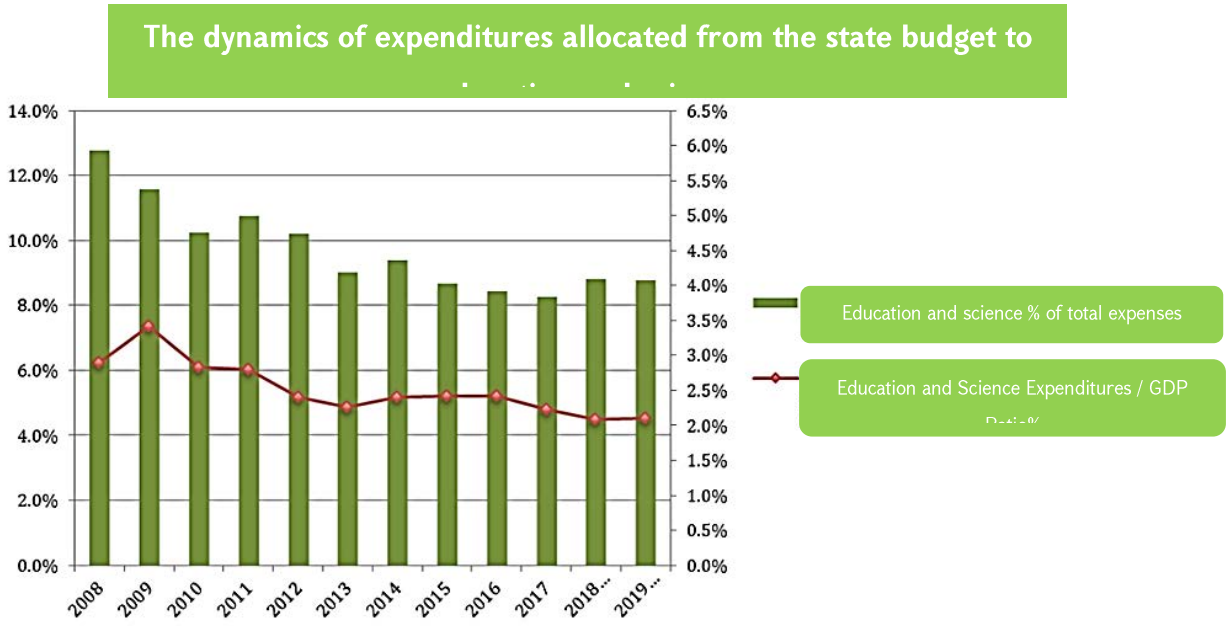

Figure 1 .

Results

So, how to solve the problem of the student's choice of profession, then the uncertainty of finding a job in the labour market, how to provide employers with qualified specialists? The management of uncertainty may be as follows: For example, to make it transparent and accessible for students, the approximate possible salary levels to be

expected after completing each university degree, having the statistics of previous years. Establish the exact number of available places calculated for each university faculty, which will meet the labour market requirements.

To provide employers with appropriate professional qualifications, it is necessary to involve employers in the education system. That way, they will be able to train their future employees. And how to involve them in the education system? Consider a few ways to solve the problem.

- As a result of the state management of the problem, greater efficiency can be achieved. The state can offer employers to conduct their own standardized training in relevant educational institutions and receive a decent rent in return. In this case, all parties will benefit. The state will ensure economic growth in the long run, employers will have a group of specialists who meet their requirements, and students will have their respective jobs and expected salaries.
- The next option is that the employers create their own educational institutions next to their enterprises, where they organize both training and internship, later hiring them. And in that case, the question arises: why have educational institutions? Why waste so much state money when every employer has to create an educational centre following its requirements?. On the other hand, the education received in these centres may not be comparable with the educational systems of other countries, the qualifications will be unrecognizable for other countries.
- Next, it is the educational institutions that can invite employers for joint teaching of different subjects. The educational institution will also benefit here, having a highly qualified, practical teacher and an employer who will have the opportunity to choose his future employee.
- The next and perhaps most difficult but key task is to get the employer involved in the curriculum development process. The employer can present his / her requirements regarding the educational level of the future graduate. In this case, the employer can organize the internship, thus developing the students' practical skills.

Conclusion

Many studies indicate the link between investment in education and economic growth. Systemic measures are needed to improve the economy. By considering a person as the main capital of the modern economy, there is a need to create the necessary conditions to accumulate and renew knowledge. It is essential to provide those with highly professional skills with appropriate work in the internal labour market.

Furthermore, in educational institutions, it is necessary to train specialists in accordance with the labour market requirements. The state-run process can be more efficient; however, employers can find relatively effective solutions to the situation on their own by providing their own staff.

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SAMVEL KHUDOYAN
IN REMEMBRANCE OF THE PROMINENT SCIENTIST

Samvel Khudoyan, psychologist, psychotherapist, doctor, Head of the Chair of Applied Psychology of Khachatur Abovian ASPU, died prematurely on December 3, 2020.

The eminent Armenian psychologist was born in 1960 in Yerevan. Graduating from Pedagogical Institute in 1991, he defended his PhD dissertation. In 2010, he introduced successfully his doctoral thesis, which earned him the Doctoral degree. In 2014 he received the title of Professor. At the beginning of his career, S. Khudoyan worked as a school teacher, then as a researcher at the State Research Institute of Pedagogical Sciences. Since 1989, S. Khudoyan has been teaching at the Armenian State Pedagogical University named, at the Yerevan State University, Public Administration Academy and other universities of Armenia. In 2005 S. Khudoyan was invited to give lectures at the K. Tahta Armenian School of London, later at the Artsakh (Nagorno-Karabakh) State University. In 1994 he started to work as a psychologist at the Mental health centre “Stress”, where during the period 2003-2005, he headed the non-medicinal therapy department. In 2006, S. Khudoyan started to run the Chair of Psychology at Public Administration Academy of the Republic of Armenia. From 2011 till the end of his life, he headed the Chair of Applied Psychology of the Armenian State Pedagogical University named after Khachatur Abovian.

Dr Khudoyan made a considerable contribution to science development, particularly psychology, its appreciation and popularization. He is the founder and the editor of the first Armenian yearbook “Hogi” (“Soul”), and in 2002 it was published as a biweekly journal. He was a member of the editorial board of many Armenian and international scientific journals, such as “Psychology and Life”, “Wisdom”, etc.

Professor Khudoyan was also an outstanding psychotherapist. Practising hypnotherapy, behavioural and existential hypnotherapy for many years, he organized

many training sessions on psychotherapy, created and practised several psychotherapeutic techniques, a scientific concept about suggestion mechanisms. S. Khudoyan is the author of the first psychotherapeutic CD (against depression) in Armenian language. In the 1980s, he was doing a psychological TV program on the First Armenian TV channel, in the early 2000s, he worked as a consulting psychologist of AR TV at the same time he has many materials in popular newspapers, journals, TV and radio programs.

Samvel Khudoyan has more than 120 published scientific works, eight books dedicated to different problems of psychology and psychotherapy. He participated in many international scientific conferences in Russia, Greece, Canada, Turkey, etc. In 2013 S. Khudoyan organized a scientific conference, “The history of Armenian Pedagogy and modern school problems”, in 2014, “Problems of school psychological service”, and in 2019 S. Khudoyan organized the international conference *“Psychological problems: characteristics, principles of classification and diagnosis”*.

In 1992, S. Khudoyan proposed a new theory of teaching. The effectiveness of understanding the material is conditioned mainly by the fact that if the learners understand the problems, solving which the given system of knowledge has been formed.

In 1998 S. Khudoyan proposed a new typology of personality. According to this theory, the human psychological types are formed during evolution. They have functional significance: each type is “designed” by nature to carry out a particular activity or function in society. These functions are orientation (“**information type”**), management and execution (“**organizational type”**) and motivation (“**motivational type”**).

S. Khudoyan has put forward several theoretical and practical innovations and concepts in the field of inspiration and hypnotherapy. He proposed another scientific typology, which has great importance for the specialists practising hypnotherapy or suggestive therapy: according to this theory, there are different psychological types, according to their determination system, i.e. how they determine, explain the objective reality, facts. These types are formed during the ontogenesis and highly depend on education. These types are “**biological determination** type”, “**social-economic determination** type”, **psychological determination** type”, “**mystical determination** type”, “**mixed determination** type”, etc. Hypnotherapy and suggestive therapy are even more effective if the specialists consider the patient’s determination system if the specialist works on it or changes it.

One of the significant scientific contributions of S. Khudoyan is the new theory of ontogenetic development, which includes a new age periodization, a concept of self-consciousness reconstructions, a new concept of developmental crises.

In this theory, age development is seen as a process of solving four problems (the formation and self-exhaustion of a “type activity subject”, “sexual activity”, “social activity” subjects etc.). At each age stage, self-consciousness undergoes reconstruction: during the first stage (at the age of about 3), the type awakens, in the second stage (at the age of 11-14), sexual self-awareness awakens, in the third stage (around the age of 25-30) the person begins to perceive and feel like a subject of social (i.e. family-work) activity, and in the last age stage (at the age of 60-65), the person begins to perceive and feel mortal. The author distinguishes two types of developmental crisis: Personality developmental crises and Crises caused by transitional ages; Reconstructions of self-consciousness condition personality developmental four crises.

Armenian and foreign scientists have highly praised S. Khudoyan’s scientific theories and approaches.

The great scientist was also a man of great patriotism and had noble personality traits. He was feeling pain and was suffering from the losses and problems of his homeland, and he was looking for ways to solve those problems. He was full of life and energy. Until the last days of his life, he was engaged in scientific and pedagogical work. He had many thoughts and dreams connected with the development of psychology.

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