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PSYCHOLOGY OF LEARNING IN ADULTHOOD: COGNITIVE PROCESSES AND MOTIVATION FOR LEARNING A FOREIGN LANGUAGE

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INTRODUCTION

The relevance of this theoretical study is connected with the processes of globalization, as a result of which, foreign language proficiency has become a modern need in society. Rapid changes in various spheres of activity, expanding economic ties, have led to the emergence of new trends in societies' development. Consequently, a modern person should practically use a foreign language not only for communication purposes, but also in his/her professional activities. In many types of professional activity, a specialist should be able to extract the necessary information from various sources, in order to communicate and establish business contacts with foreign colleagues and partners. Developing trends in educational and professional migration create the need to learn foreign languages not only in youth, but also in adulthood. A significant number of adult master and doctoral students studying abroad, businessmen, emigrants, and expats are interested in learning a foreign language at a rapid pace. This makes it necessary for language teachers to develop new learning technologies for adults.

The development and implementation of new technologies for teaching foreign languages during adulthood is impossible without substantiating the essence of cognitive development of adults. Learning is a complex socio-

psychological process carried out by each person. Mysterious changes occur in the development of the individual, and complementary, intertwined, and in a certain way the organized types of educational activities of participants in this process are realized during this process. It is no secret that the process of human education continues throughout life. In most cases, most specialists finish purposeful and organized training in the period of maturation, at the age of 22-25 years. If we take into account that the majority of first-year students were yesterday's scholars who entered the institution without any established professional orientation, then it is too early to talk about a conscious choice of specialty. Most people with an accomplished formal education by the age of 30-35 years, when a person becomes mature enough to understand what his/her true vocation is, sometimes voluntarily, and sometimes under the pressure of circumstances, feel the need to undertake additional education. Modern research shows that the greatest success is achieved by those professionals who realized that the problem of acquiring additional or completely new knowledge and professional skills should be viewed as a conscious need in the dynamics of modern development (Kraig, 2000).

Of course, in different periods, a person has different needs for knowledge. The needs for cognition of the surrounding reality at different stages of age-related development determine the dominance of certain psychological and pedagogical processes. These needs are directly related to the formation of an image of the world and one's place in it andthe rejection of false ideas about oneself and the surrounding reality (Zmeyov, 2014).

CHARACTERISTICS OF LEARNING DURING ADULTHOOD

Adult learning activity is one of mastering ways of learning actions. The final result of this activity is individual self-development and the formation of new educational needs (Gromkova, 2012). Thus, any learning process, called a didactic process or **DP**, can be illustrated by the following formula: **DP** = **M** + **Af** +**Am**

M is motivation or defined specified needs;

Af is an algorithm of the functioning an adult's educational and cognitive activities ;

Am is an algorithm of management – the teacher's activity.

Knowledge of educational needs and motives, research of features of educational-cognitive activities and cognitive styles of perception and information processing, as well as the creation of new technologies in the educational process are the basis of adult education system development.

The problems of teaching an adult person have long been on the periphery of education sciences' attention. According to B. G. Ananiev, "paradoxically, early and late ontogenesis were in the center of psychological cognition of human development, and at the "periphery" of that there are those phases when a person lives the most productive, creative and socially active life" (Ananiev, 1980: 336).

The cognitive development of an adult should be studied from the point of view of ongoing functional changes. K. Warner Schaie suggests that it is the intelligence functions that acquire changes in time, not the intelligence nature itself (Schaie, 1996).

He identifies three periods of intelligence function changes:

1) early adulthood (20-40 years) - the stage of achievement when intelligence is used to solve real problems that can determine a person's future life (choice of work or a spouse);
2) middle adulthood (40-60 years) - (the social duties fulfillment stage), the period when a person makes decisions that affect other people and is obliged to consider their interests;
3) late adulthood (60 years and older) – reintegration stage, when knowledge usage is changing and experience, wisdom, and values are offered to other generations as an example, action pattern, and the basis for further forms of improvement. For K. U. Schaie, the essence of cognitive development in adulthood is the flexible use of intelligence in different periods of a person's life (Schaie, 1996; 2005).

The cognitive features of early adulthood are dialectical thinking, semantic systems, development of commitment and responsibility, flexible use of intelligence. In middle age, one of the most important factors affecting cognition is life experience intensity. Physical activity may somewhat decrease, but experience and knowledge of their abilities allow middle-aged adults to succeed in life. They are able to make decisions necause they are personalities confident in their abilities, which was previously unavailable to them. This is why 40-60-year-olds are called the leading generation. This is why most people responsible for decision-making

in government, industrial corporations, and in the society, on the whole, belong to this age group (Markova, 1996; Stepanova, 1996).

Many people continue to demonstrate a high level of various intellectual abilities throughout their middle age. At the same time, there are a number of individual differences. Some of abilities decline in individuals very quickly. Yet this decline in ability is not an automatic function of aging. The decline in intellectual abilities is associated with the level of the individual's "life complexity". People who are satisfied with their lives, who rarely conflict with others, who have close-knit families and a wide social circle, who have a healthy lifestyle and are able to protect themselves from the negative effects of stress, demonstrate intellectual abilities that last longer and increase over the years (Zeer, Symanyuk, Ryabukhina, & Borisov, 2020).

Middle age is marked by a number of changes in cognitive activity. Some researchers divide intelligence into two broad areas: fluid and crystallized intelligence.

Fluid intelligence (the abilities used to learn something new), which includes the processes of memorization, inductive reasoning, and identification of data in the perception of relationships, reaches its development peak during adolescence, and then gradually decreases throughout adulthood. Crystallized intelligence (the ability to formulate judgments, to analyze problems, and to draw conclusions based on accumulated knowledge and experience) functions on the basis of accumulated knowledge and experience, and increases with age (Kraig, 2000). If older people can use their previous experience to solve problems, then they are able to cope with many tasks better than younger people are.

ANALYSIS OF THEORIES OF COGNITIVE DEVELOPMENT IN ADULTS

The main psycholinguistic features of teaching adults a foreign language must take into account the difficulties that arise in the learning process, to implement the basic principles of mastering a foreign language, and to apply individualized strategies for teaching a foreign language. In this case, the process of teaching adults a foreign language will meet not only communicative and cognitive

expectations, but also personal ones, providing an opportunity to use individual styles and learning strategies based on personal interests and life needs.

An important point of cognitive and personal development of an adult is self-understanding. An adult, unlike a child, a teenager, or a young person, is, first of all, engaged in solving life-, not educational tasks: s/he does not so much learn in the proper sense of the word, as s/he improves her/his abilities and skills. In this process, a person's self-understanding acts as the ability of a person's multi-level and multidimensional reflection of his/her life activity, as one of the main grounds and conditions for the ability to "redefine" the circumstances of his/her own life activity and lifestyle (Mikhailova, 2007).

The largest systematic comprehensive studies of adult cognitive development were organized and conducted under the leadership of B. G. Ananiev. The structure of adults' psychophysical development combines periods of ups, downs, and stabilization of functions. At the same time, a stationary state is relatively rare (in 14% of cases). The contradictory structure of development characterizes both the most complex formations — intelligence, logical and mnemic (memory) functions — and the most elementary processes. As B. G. Ananiev's research has shown, there are two phases in the process of ontogenetic development. The first is characterized by a general frontal progress of functions (in adolescence, youth, and early middle age). In the second phase, the evolution of functions is accompanied by their specialization in relation to a certain activity (Ananiev, 1980).

The second peak of functional development is reached in later periods of maturity. If in the first phase of development the functional ontogenetic mechanism is the main one, then in the second phase, the main mechanisms are operational ones, and the duration of this phase is determined by the degree of activity of a person as a subject and as a personality (Galichin, 2012).

Achieving high levels of development in mature years is possible, therefore, due to the fact, that mental functions are under optimal load, an have increased motivation and operational transformations.

Intelligence plays the most important role in the maturity period development structure. As shown by B. G. Ananiev & E. I. Stepanova's research, the process of an adult's intellectual development is heterogeneous, characterized by alternating declines and rises, as well as changing accents within the system of mental cognitive processes. Several periods of intellectual development are distinguished (Ananiev & Stepanova, 1977).

The first period – 18-25 years – has a frequent change of development ups and downs; this period is characterized by instability and active restructuring of mental functions.

The second period – 26-35 years – an increase in stability, a minor decrease in the level of involuntary memory, voluntary attention increase, along with the overall rise of the level of intelligence by increasing the activity of thinking process. It is during this period, according to E. I. Stepanova, that the formation of an individual style of mental activity takes place (Stepanova, 1996).

The third period – 36-40 years is characterized by an increase in the integrity of the intellect, the appearance of maturity of judgments and wisdom. After 40 years, there is an intensive development of verbal intelligence, which resists the process of aging and weakening of intellectual functions.

In older ages, with the accumulation of life experience and its professionalization, the influence of an individual style of mental work on the person's intellectual development increases.

According to Russian scientists, the development of intelligence is determined by two factors: internal and external (Ilyin, 2012; Romashko, 2016). The internal factor is giftedness. Giftedness is understood as a genetically determined component present in the form of dosed potential. The human brain with its ability to develop is certainly the greatest gift of nature and in this sense "giftedness" can appear not as exclusivity, but as a gift available to everyone, so the development of giftedness concepts is important as a basis for building psycho-technologies focused on the development of human potential as a whole. Most gifted (developed) adults demonstrate stable intellectual processes for a long time.

An external factor in the intelligence development is education, which resists aging and slows down the processes of involution of mental functions. Thus, verbal-logical functions, reaching an optimum in early youth, can remain at a rather high level for a long period, decreasing by the age of 60.

The use of the longitudinal method showed a sharp increase in indices from 18 to 50 years and a slight decrease by 60 years, in intellectually developing people.

According to Russian psychologists, in general there is an uneven development of verbal and nonverbal components of intelligence throughout the entire range of adulthood from 17 to 50 years. Scientific evidence strongly suggests that the learning process is a factor in optimizing intellectual development. In individuals

with higher education and a constant tendency to self-development, the level of high intelligence is maintained throughout the entire range of adulthood. In the process of adult development, professional development, the process of learning in various forms of its manifestation and at different levels becomes important (Zeer, Symanyuk, Ryabukhina, & Borisov, 2020).

One of the possible criteria for distinguishing types of growing up and adulthood is dependence on the understanding strategy, i.e. the transformation of semantic information on the individual's value potential. The type of adulthood is a form of existence of an adult personality's value system, reflecting the general meaning of consciously accepted by a person, an indicator of her/his socio-psychological competence. There are specific distinctive characteristics of an adult's educational activity (Mikhailova, 2007): 1) they are aware of themselves as independent, self-governing people; 2) they have life (everyday), professional, social experience, which becomes a more important source of training for themselves and their colleagues; 3) the basis of readiness for training is the desire to solve their vital problems and achieve specific goals; 4) they strive for the immediate implementation of the acquired knowledge, skills, qualities; 5) educational activities are largely determined by temporary, spatial, everyday, professional, social factors (conditions).

In recent decades, the following aspects of individual professional development in the learning process have been studied: identification of the features of adult students' activities (Mikhailova, Kudinov, & Marin Jerez, 2015); didactic principles of adult education (Ilyin, 2012; Zmeev, 2014); technologies used in training (Galichin, 2012; Nagy, Johnston, & Hirschi, 2019); socio-professional and psychological problems of continuous education and adult culture (Heckhausen, Wrosch, & Schulz, 2019).

MOTIVATION AND TECHNOLOGY FOR TEACHING ADULTS A FOREIGN LANGUAGE

When people start learning, they experience mixed feelings of hope, expectation, apprehension, anxiety, and even fear during middle adulthood. On the one hand, they strive for a vital goal, they are eager to achieve it, and to make positive changes in their lives. Yet, on the other hand, they have mythical fears of taking on the

responsibility for their studying: the habit of a stable, established state of affairs comes into conflict with inevitable future changes. Adults are concerned and have doubts about their learning abilities, the fear that their illiteracy will be revealed in the learning process, and the inability to work with modern information, which gives rise to the myth of them having low estimation and slow progress compared to other students. Some adults are uncomfortable with the idea of returning to the learning process, which leads to myths about age-related opportunities and learning abilities in later life.

In the period of maturity, students enter into the process of learning here and there, when they feel the vital need for such learning. They organize their own lives and make their own decisions, while training acts during this period as a self-educational activity in which people are included by their own decision and type selection.

Motivation, like other higher mental functions, is a socially conditioned phenomenon: it develops and changes in people's lives and social practice. The sphere of motivation and needs develop together with the intellectual-operational sphere and we can talk about their mutual influence.

Human abilities are associated with motivational mechanisms as they determine the motivational sphere and experience its influence both in content and in dynamic terms (Maslow, 1998). The qualitative composition and the emerging level of human capabilities (physical, intellectual, emotional, communicative, etc.) usually leads to the formation of such needs, interests and activities (strength of the motives and level of functionality).

The motivation of the student consists of a number of intentions/purposes which gradually change and form new relationships with each other (needs and meaning of studying, motives, interests etc) (Kooij & Kanfer, 2019).

Many psychologists interpreted motive as a driving force, an *incentive;* H. Heckhausen share this point of view. In this regard, he separates the motive from attitudes, goals, relationships, states, drives, desires. Heckhausen writes that a stimulus causes an action or a deed, not directly, but indirectly, through a motive: the motive is triggered by a stimulus, and the motive of an action or a deed is an internally conscious impulse that it accepts as a motive (Heckhausen, 2010).

The motive in educational activity — the student's focus on certain aspects of the educational process — is associated with the student's internal attitude to

it. The types of motives include cognitive and social motives (Starkova & Polshina, 2012).

Both cognitive and social motives can have different levels: broad cognitive motives (orientation to the acquisition of new knowledge, facts, phenomena, patterns), educational and cognitive motives (orientation to knowledge obtaining ways' assimilation), self-education motives (orientation to the acquisition of additional knowledge and then to the construction of a special program of self-improvement).

Social motives can have the following levels: broad social motives (understanding the social significance of educational and professional activities), narrow social or positional motives (striving to improve social and professional competence, achieving public recognition).

Based on the studies of B. G. Ananiev, Markova, E. I. Stepanova, Ilyin, Gromkova, Zmeev, and others, we compared the main features that affect the motivation of educational activities of adults and children, youth (Table 1).

Thus, in the complex problem analysis of adults' educational activity motivation, we are faced with a two-way process: on the one hand, the adult person has internal motivation to education, on the other, the development of these motives depends on the specific features of educational process organization and the degree of satisfaction with the level of education.

It is obvious that motivation is a complex internal process caused by a person's subjective and personal interest in a certain action. In the case of learning a foreign language, motivation is characterized by forms such as intention, goal, aspiration, and dream. In addition to form, it is characterized by the type of need, the degree of relevance, the scale, and the content of the implemented activity.

Adult students are definitely motivated to learn a foreign language. However, the question of the reasons for motivation remains open. What exactly are the driving forces? Confidence in success? Self-confidence? The responsibility for the learning outcomes? Or just ambition?

Namkhi Lee talks about the interaction motives that encourage people to learn both the first (native) and second (foreign) languages (Lee, Mikeseii, Joaguin, Mates, & Schumann, 2009). Mental abilities to learn a foreign language, physiological and psychological characteristics, time, and financial opportunities are different for different people, which naturally affects the degree of motivation to learn a foreign language.

Table 1. Specifics of learning in childhood, youth and adulthood

Children, young students	Adult students
They are focused on the assimilation of the experience of previous generations, the use of knowledge and skills already acquired by generations.	They are focused on life needs, modern practical activities.
They perceive what they hear in class, what they read about.	They perceive what they need to use practically.
Special attention is paid to progress in learning, to grades, to the readiness to pass tests and exams.	The focus is on improving their professional qualifications, their self-awareness and status, and on satisfying their interests.
School knowledge is based on the past; awareness of this fact reduces interest in learning.	With particular interest, they study what is closely related to reality, with the nearest prospects.
Attention is limited to those areas of knowledge that are defined by the program and the teacher.	Attention is drawn to those areas of educational material that can expand the boundaries of professional knowledge.
The amount of knowledge gained in training is expected to be used in the future.	They are trained to mind the needs of the acquired knowledge for immediate use in their activities.
The main flow of educational information goes down vertically (from the teacher to the students).	The effectiveness of learning and the perception of educational information increases with the optimal combination of vertical direction (from the teacher to the students) and horizontal (wide exchange of views in discussions with other students).
Feedback is implemented by means of current (survey) or step-by-step (control, tests, exams) control.	Feedback is implemented through the development of learning activity in the classroom.
Educational activity develops into a socially transformative one.	Educational activity itself is the final result of learning.

Another driving force may be the desire for socialization and the social aspects of learning. They determine the results of studying. Although adult learners may have different reasons for learning a foreign language, different teachers, and different methods of learning, they will all gradually be united by the desire to identify themselves with a particular social group. It is participation in such a social life (regular meetings with a group of like-minded people united by one goal) that increases their motivation.

G. Douglas Brown identifies the internal and external driving forces that encourage adults to learn a foreign language. Internal motivation is a strong personal desire for self-development. If a person is not going to live abroad or to use the language in his career, then this is just his personal victory over himself, expanding his horizons, self-affirmation (Brown, 1991).

External motivation is determined by external circumstances: business development, career growth, business correspondence and negotiations, travelling abroad, and access to the international market dictate the need to know a foreign language as an integral part of one's profession.

Studies conducted by G. D. Brown show that in America, internal motivation prevails over external motivation (Brown, 1991), while in Russia the situation is absolutely the opposite. Adults begin to learn a foreign language, being driven by external motivational factors. J. Schumann, in fact, speaking about the same two types of motivation, calls them integrative and instrumental (Schumann, 2013). Integrative motivation occurs when learning a foreign language is motivated by a desire to interact with people of another nation and culture, to learn new things firsthand, to listen, read, communicate and draw conclusions without various intermediaries' help. This motivation is due to overall globalization.

Instrumental motivation is the motivation to learn a foreign language for more pragmatic or practical purposes, such as getting a job or promotion, being able to deal with foreign partners (for adults). This type of motivation is explained by the ever-increasing competition in all areas of life. In reality, it is not possible to separate these two types of motivation in relation to adult students or to indicate the prevailing one when learning a foreign language; in most cases they demonstrate interaction.

It should also be noted that motivation is not characterized by stability. Both the situation and the training conditions are responsible for its support. The importance of learning conditions is great because through them the adult student satisfies his/her psychological needs, the need for a sense of personal achievement, a sense of belonging to a certain society, and, ultimately, the need for power. Unsuccessful training conditions are accordingly demotivating, as a result of which the training is doomed to failure. Thus, whatever the driving force that motivates an adult to start learning a foreign language is, the teacher's task is to recognize this motivation and to maintain it at the proper level through various psychological and pedagogical methodologies.

The orientation of teaching adults a foreign language is associated with the operational use of the acquired knowledge in practice, so an important motive for learning a foreign language in adulthood is the practical implementation of the acquired knowledge. This implies that the study of grammar should be given fairly limited time (if necessary), vocabulary should be mastered to the extent necessary for the successful completion of practical tasks, and practice should be implemented within the framework of life situations and dialogues.

The progressive study of grammar and vocabulary, followed by the transition to drilling exercises, characteristic of traditional methods, does not stimulate the adults' motivation to acquire and consolidate new knowledge. Exercises created artificially are not able to make the learner an active user of a foreign language. Within the framework of the communicative approach, the basics of the studied foreign language are explained through familiar expressions, vocabulary, grammatical constructions, as well as with the help of auxiliary visual aids.

In addition, an effective method in teaching a foreign language to adults is the method of specific situations. The method of specific situations is an active learning method of imitation, in which students should analyze the suggested situation proposed and develop a certain solution or several ones. For an adult audience, this method of learning a foreign language most successfully implements the possibilities of active, results-oriented training in professional and business communication in a foreign language in business education and professional training. According to this method, different professional situations are discussed. The proposed situations can be relatively small or quite voluminous. As for their content, they can be plot-based or plot-free. The content of the texts should meet the goal, have a suitable level of difficulty, be relevant, provoke discussion, and have multiple solutions. When creating problematic situations, it should be taken into account that the real-life facts are of interest and should be become the foundation. Communication as an activity is based on the concepts of communication theory and speech psychology. The organized learning process with the use of specific situations promotes the independent acquisition of knowledge, activates cognitive activity, boosts thinking processes, and forms practical skills.

It is advisable to use the following steps when developing and implementing the method of specific situations:

- It is important to select the situation and familiarize the audience with this specific case. One needs to understand the selected case individually or in

a group. Students predict the development of specific events concerning the characters in a typical practical situation, i.e., they model it.

- The teacher discusses the situation individually or in a group, recording the responses of each participant.
- The cycle is observed throughout the task: question-survey-message of a subgroup in the group to get as many points of view as possible and to reflect on other experiences.
- A discussion should be organized, during which groups exchange views on the problem and ways to solve it.

Thus, a well-developed and effectively presented method of specific situations has the following advantages in the process of teaching an adult audience: 1) it reflects the current complexities of cross-cultural interaction and illustrates the situations typical of the real process of communication; 2) the method makes one think: is it legitimate to talk about only one correct answer or solution; 3) it helps participants to carefully weigh many factors that affect the process of interaction and avoid hasty judgments.

In the conditions of digitalization of modern education, information and communication technologies can be used to provide visibility of the educational process, which in turn contributes to the awakening of interest in the traditions, history and culture of the country of the language being studied. The effectiveness of teaching foreign languages to adults using the communicative method of teaching is that all the necessary language skills are developed at once: oral and written speech, reading, listening. The development of grammar takes place within the framework of communication between the participants of the educational process in the studied language.

CONCLUSION

The main provisions of the theory of teaching adults a foreign language, the andragogical model of teaching, are better considered in comparison with the pedagogical model of teaching. The comparison of these two models should begin with an analysis of the participants' role in the educational process. If in the pedagogical models of education the dominant role is with the teacher (who determines all the parameters of the educational process), and the student thus

occupies a subordinate, dependent position (being unable to seriously influence the choice of educational parameters), in the andragogical model an adult learner is an active participant, one of the equal subjects of the learning process as s/he is experiencing a deep need for autonomy and self-management (although in certain situations, he may be temporarily dependent on someone else).

In the pedagogical model, the student's participation in studying is also quite passive: after all, his/her main role is the perception of social experience transmitted by the teacher, while in the andragogical model, the learning process is first of all characterized by the process of the student's independent determination of learning parameters and his/her search for knowledge, skills, and qualities. That is why the main methods of teaching in the pedagogical model are reproductive and translational, while the andragogical approach to teaching adults a foreign language suggests the following teaching methods:

- expositional — involving the organization and presentation (exposure) of the learning content by an external source (teacher, lecturer, textbook, film, etc.);
- managerial — when the learning process is organized and directed by leaders (discussion leaders, game managers, authors of training programs) in such a way that students achieve predetermined goals;
- search — both the formulation of problems, and the search for their solutions are included in the educational process.

The main goal of the search method of training is to involve students in mental activity. Problem-based search methods in teaching a foreign language are most adequately corresponding to the andragogical model tasks.

To compare the andragogical and pedagogical models of learning, a parameter such as *readiness to learn* is also important. Within the framework of the pedagogical model, the student's readiness to learn is determined mainly by external reasons: coercion, pressure of society on a person, the threat of life failure if s/he won't study, etc. Training is organized according to a single standard, which provides for a uniform gradual study of separate, unrelated disciplines. The main task of the teacher, in this case, becomes the creation of artificial motivation, to define learning goals that could be of interest to the students.

In the andragogical model of learning a foreign language, the need to solve vital problems determines the adults' willingness to learn. That is why the student him/herself plays a leading role in the formation of motivation and the learning goals definition. In this case, the teacher's task is to create favorable conditions for

learning and to choose the optimal combination of methods and criteria that would help students to find out their learning needs. The basis for organizing the learning process in this regard is the individualization of studying, based on an individual training program that pursues each student's individual, specific learning goals.

In the conditions of digitalization of modern education, information and communication technologies can be used to provide visibility of the educational process, which in turn contributes to the awakening of interest in the traditions, history and culture of the country of the language being studied. The effectiveness of teaching foreign languages to adults using the communicative method of teaching is that all the necessary language skills are developed at once: oral and written speech, reading, listening. The development of grammar takes place within the framework of communication between the participants of the educational process in the studied language.

One of the main types of adult education is considered to be training in a group of colleagues, so it is important to take into account the following characteristic features of adult learning psychology:

- the nature of training should not be directive or commanding;
- the training is aimed at achieving results in research and problem solving (even in the traditional study of academic disciplines, the group/class can use problem cases, linking them to the content of vital problems and questions for themselves);
- problem statement and creation of necessary knowledge for practical solution of problematic situations;
- dialogue between group members is the central position of the adult learning methodology.

A teacher working with adult learners should take into account that they bring their own experience, system of ideas, needs and motives to the learning process.

The analysis has shown that it is necessary to identify the key areas of positive motivation formation for learning foreign languages in adulthood: 1) the development of conversational skills from the very beginning of training; 2) the gradual removal of the language barrier; 3) the formation of competent and active speech skills; 4) the development of the ability to understand the language; 5) the rapid expansion of vocabulary; 6) dynamism, simplicity and effectiveness of communication between the teacher and students.

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PRO-ENVIRONMENTAL VALUES AND EDUCATION[1]

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INTRODUCTION

On 13-22 October 1975, in Belgrade, Yugoslavia, a significant International Environmental Workshop was held by United Nations Educational, Scientific, and Cultural Organization (UNESCO) devoted and resulting in "A Global Framework for Environmental Education" (the Belgrade Charter). The participants were warned that severe environmental consequences of the economic and technological growth would happen, calling for a new way of development that would strive towards a balance between humanity and the environment. The Framework for Environmental Education proposed six objectives: raising awareness of the total environment and its problems; acquiring knowledge concerning environmental issues and problems and the role humans play in them; developing adequate attitudes and values, concern for the environment, and the motivation to act; acquiring skills for solving problems; developing the ability to evaluate existing measures and educational programs; developing a sense of responsibility for solving environmental problems and readiness to participate (UNESCO, 1976). In spite of such educational efforts lasting for decades, humanity is nowadays facing even more severe and widespread environmental problems.

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THE MAIN GLOBAL ENVIRONMENTAL PROBLEMS

Having in mind numerous global and local environmental problems, the immense importance of developing pro-environmental attitudes and values and especially facilitating appropriate behaviour is obvious. According to Jianping et al. (2014), nowadays there are nine main global environmental issues: **Global Warming**, referring to the gradual increase of the temperature of Earth's surface and atmosphere, causing the harmful greenhouse effect due to higher emissions of greenhouse gases, with consequences such as "the polar glacier partial thawing, rise of sea level, submergence of some foreland regions, etc."; **Ozone Depletion and Destruction** "caused by ozone-depleting substances, mainly chlorofluorocarbons (CFCs), given that the ozone layer protects lives on Earth from UV injury as a natural "Umbrella"; **a sharp decrease of forest cover**, referring to the disappearance of areas covered by forest, which leads to severe consequences for the ecosystem, including water loss, erosion, and desertification, which are a certain threat for humanity; **Decline of Biological Diversity**, including "genetic (biological genes) diversity, species diversity, and ecosystem diversity; it is the core component of Earth's life-support system and the material basis of human survival and development"; **Acid Rain Pollution**, which endangers forest ecosystems, aquatic organisms, the production of food, and even buildings; **Land Desertification**, referring to deterioration of land caused by climate change and "irrational human economic activities"; **Marine Pollution and Damage**, referring to the pollution of the marine environment and "damage to marine ecosystem due to over development of marine resources"; **Water Pollution and Freshwater Resource Shortage**, given that water is the source of life, and one of the indispensable physical resources for the survival and development of human society"; **Toxic Chemical Pollution and Cross-Border Transfer of Dangerous Waste**, given that "there are thousands of dangerous chemicals on global market, and more than 500 are known to cause cancer, teratogenesis, and mutagenesis" (Jianping et al., 2014: 4-9).

We should add the problem closely related to acid rain, severely endangering people and the natural environment in numerous countries: air pollution, caused mainly by industrial facilities, steelworks, furnaces, burning fossil fuels, and improper burning of waste.

THE MEANING OF VALUES AND THE PLACE OF ENVIRONMENTAL PROTECTION IN DIFFERENT VALUE THEORIES

Values can be defined in at least three ways: having worth or usefulness, or the desirability of something; as an opinion or liking something; or as principles and moral standards (Dietz, Fitzgerald, & Shwom, 2005). The famous Rokeach theory defines values as guiding principles, distinguishing between terminal and instrumental values. Terminal values refer to general goals or outcomes (for example, freedom, equality, a world of peace, a world of beauty, true friendship), while instrumental values refer to means, or ways to achieve goals (for example, being ambitious, imaginative, polite, self-controlled). Values are connected with affect: an individual might feel frustrated or angry when prevented from achieving values he/she rates highly. Values have the power to motivate behaviour (Feather, 1988). Giving more importance to a value implies a greater possibility for action that leads to the attainment of that value (Sagiv & Roccas, 2017). Values are also defined as guiding principles by Schwartz (2017), transcending through numerous actions and situations, and they colour the experiences we are confronted with, since people rely on values as standards (Schwartz, 2012). Therefore, the perception of a situation and the decision about what to do depends largely on each value, concerning different aspects of life, including the environment.

The terminal value in **Rokeach's theory** that mentions nature is the value called **A World of Beauty**, defined as the beauty of nature and the arts. We can recognize the roots of pro-environmental values in Rokeach's theory. Lack of environmental protection values explicitly stated could be understood in the context of environmental ethics just emerging in the 1970s, opening questions of the justifiability of the prevailing anthropocentric world view.

One of the most influential theories of values, which has been largely used in the research of pro-environmental attitudes and behaviour, according to Schultz and associates (Schultz et al, 2005) is the Schwartz theory of values. In its original form it distinguishes ten basic values (Schwartz, 2012), while in the refined version the author recognizes 19 value types (Schwartz, 2017). In the system of values of an individual, the ten values are placed in a certain order, according to their importance for the individual. The theory explains the mutual relations of values, their mutual conflicts and compatibilities. In the original theory (see Table 1), pro-

environmental values are contained in Universalism, defined as understanding, appreciation, tolerance and protection for the welfare of all people and for nature (broadmindedness, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment). Universalism and benevolence belong to the pole of self-transcendence, opposite to the pole of self-enhancement. Self-transcendence emphasizes concern for the welfare of others and surpasses one's own interests. Another dimension recognized by the model is Openness to change vs Conservation, which emphasizes the conflict between independence of thought and action and readiness to change on the one pole, and resistance to changes, on the other (Schwartz, 2012).

Table 1. Defining goals for ten basic values, according to Schwartz (2012)

Values	Descriptions
Power	Social status and prestige, control or dominance over people and resources (social power, authority, wealth, preserving one's public image)
Achievement	Personal success through demonstrating competence according to social standards (being perceived as successful, capable, ambitious, influential)
Hedonism	Pleasure and sensuous gratification for oneself (pleasure, enjoying life, self-indulgent)
Stimulation	Excitement, novelty, and challenge in life (daring, an exciting life)
Self-direction	Independent thought and action – choosing, creating, exploring (creativity, freedom, independent, curious, choosing own goals)
Universalism	Understanding, appreciation, tolerance and protection for the welfare of all people and for nature (broadminded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, protecting the environment)
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact (helpful, honest, forgiving, loyal, responsible, true friend or love)
Tradition	Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provides (humble, accepting one's portion in life, devout, respect for tradition, moderate)
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms (politeness, obedient, self-discipline, honouring parents and elders)
Security	Safety, harmony and stability of society, of relationships, and of self (family security, national security, social order, clean, reciprocation of favours).

In his refined theory Schwartz (2017) recognizes three subtypes of Universalism – Universalism-Tolerance (acceptance and understanding of those who are different from oneself), Universalism-Concern (commitment to equality, justice and protection for all people) and Universalism-Nature (preservation of the natural environment). The predictive power of the 19 values over behaviour was confirmed in four countries (Lebedeva, Schwartz, Van De Vijver, Plucker, & Bushina, 2019; Schwartz, 2017; Schwartz & Butenko, 2014; Schwartz et al., 2016). This confirmation underlines the importance of studying pro-environmental values and facilitating them through upbringing and education.

Values exist as individual and cultural phenomena, and their conceptual basis, dimensions, and correlates differ (Schwartz, 2011). Learning about cultural value orientations can help us understand the context within which an individual lives and its influence on the behaviour of society members. Among the most influential cultural value theories are: Theory of Cultural Value Orientations (Schwartz, 2009), Cultural Dimensions Theory (Hofstede, 1980), Cultural Map of Values (World Values Survey, 2000) and Revised Theory of Modernization (Inglehart & Welzel, 2005). For the purpose of this article, we will briefly present the cultural values dimensions by Inglehart and Welzel (2005), who identified two dimensions of cultural values: Traditional values versus Secular-rational values, and Survival values versus Self-expression values.

Environmental protection is present among the Self-expression values, which also include higher tolerance of foreigners and homosexuals, and a commitment to the higher participation of all citizens. The opposed pole, called Survival values includes an ethnocentric attitude, lower tolerance of different people, and a focus on security. On the graph presenting the results of a world value survey for the period 2010-2014, African-Islamic countries (for example Tunisia, Azerbaijan, Yemen, Iraq) and countries in the Eastern Orthodox Christian cultural region (for example Bulgaria, Romania, Russia, Serbia) obtain the highest scores in terms of Survival values, while the Protestant Europe and English-speaking cultural region achieve the highest scores for Self-expression values (with Sweden, Norway, Denmark, Canada and Iceland leading). Traditional values refer to the importance of religion, traditional family values, obeying authority, while Secular-rational values are present in societies giving less importance to such values, while the theory emphasizes the influence of the philosophical, political, and religious ideas that dominate in the culture.

Another important observation of Inglehart and Weltzel refers to the highly rated Self-expression values in western countries, explained by their post-industrial economies, where people may take survival and freedom for granted, and opt for concern for the preservation of nature, tolerance, democratic values etc. "Intergenerational value change is not automatic: it takes place only if a society's younger cohorts experience more secure living conditions throughout their pre-adult years, so that they grow up taking survival for granted" (Dülmer, Inglehart, & Welzel, 2015: 69).

THEORETICAL FRAMEWORKS OF RELATIONSHIP BETWEEN VALUES AND BEHAVIOR

In order to understand the impact of personal values on environmental behaviour, we combined elements from two important theories that connect both values and behaviour, one coming from social psychology (Ajzen & Fishbein, 2005) and the other from environmental education, the Value-Belief-Norm Theory, as presented by Stern, Dietz, Abel, Guagnano and Kalof (1999), and Ghazali, Nguyen, Mutum and Yap (2019). It is particularly important to distinguish factors that can and those that cannot be influenced by education and act according to this knowledge. For example, education could and should offer knowledge and experience, facilitate awareness of the consequences, and help develop pro-environmental values and attitudes and proper behaviour, but it can hardly change students' personalities or parental expectations. Knowledge primarily refers to understanding of the natural environment and biodiversity and the importance of solving existing problems, in order to achieve the harmonious coexistence of living beings on our planet.

From the multilevel interaction of factors (Diagram 1), the difficulty of developing environmental values in students through school activities can be understood. It is also obvious how children's important others (parents, teachers, friends) play a major role in this process. Further, complete educational efforts should have the same orientation; schools should not only be performing environmental education activities inside the school walls and within the ambit of few school subjects. A unified strategy should be adopted that will result in an educational practice where the whole school curriculum is devoted to promoting environmental values, and this effort should be supported in society.

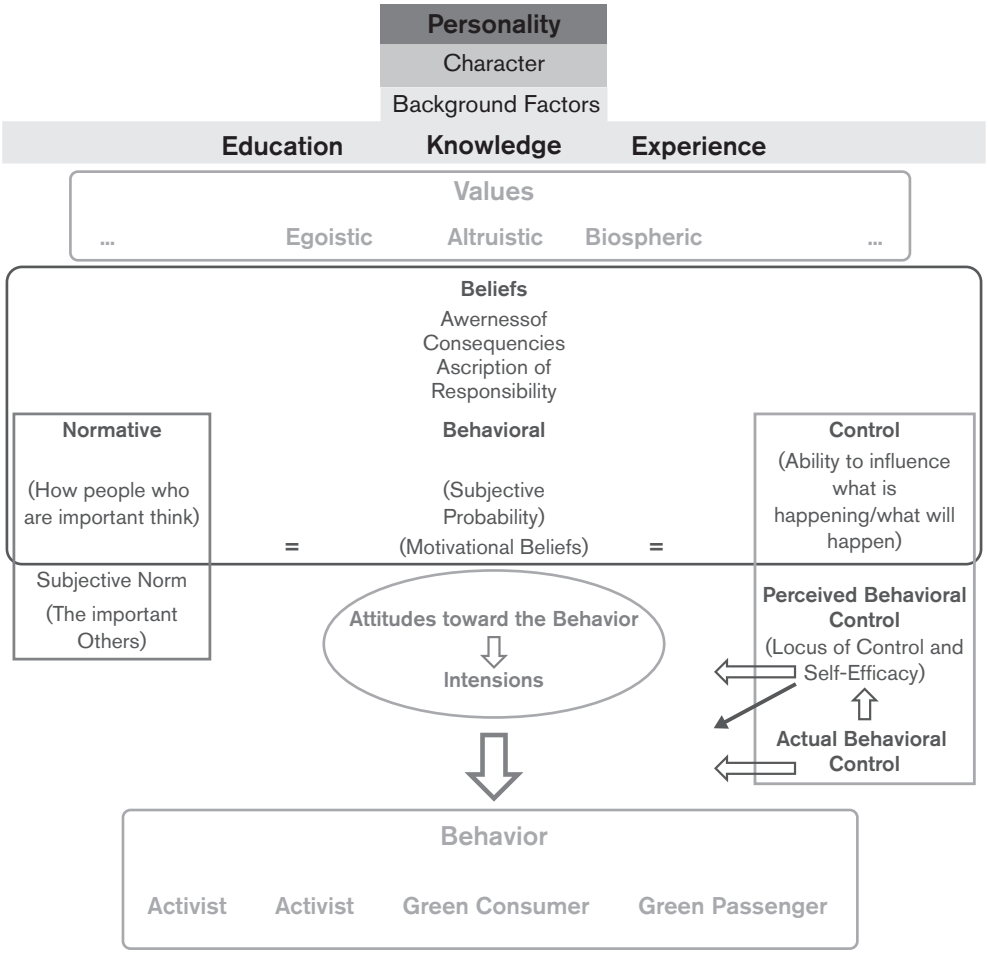

Diagram 1. From pro-environmental values to pro-environmental behaviour

VALUES AND BEHAVIOR – EMPIRICAL FINDINGS

The value-based theory of environmental concern (Stern & Dietz, 1994; Schultz et al., 2005) was formulated in an attempt to explain the relationship between values and behaviour. It recognizes values as incentives for behaviour in the awareness of possible harmful consequences for the objects of value. Through the choice of an object of value a person makes, we can distinguish the source of their environmental concern – egoistic attitudes revolve around the person him/herself, social-altruistic attitudes involve concern for all people in general,

and biospheric attitudes involve concern for all living beings. This three-factor structure of environmental attitudes was confirmed empirically (Schultz, 2000). According to this theory, we can distinguish the different bases of environmental concern that people express. Therefore, we can make predictions about what an incentive for behaviour would be for people who appreciate different objects of value; individuals with egoistic attitudes will react to protect themselves when they felt endangered; those with social-altruistic attitudes will react if they perceive a threat to people around them, or humanity in general. The third orientation implies that the individual's behaviour is directed by their care for forests, fish and insects, even if no human beings are directly endangered. According to Schultz (2000), the type of environmental concern is an indicator of the degree to which our interconnection with nature is emphasized in our view of ourselves.

Certainly, the categorization of different impacts can only ostensibly be made in such a clear way. The long-term effects of many ecological problems and human mistakes have repercussions on different species and numerous social communities, leaving the majority of individuals on unsafe ground. There are not many people that are not threatened by ozone depletion, deforestation, fresh water contamination, chemically treated food, or air pollution etc. Furthermore, one-year's worth of Earth's resources for 2019 were exploited in only 7 to 10 months (Global Footprint Network, 2019), which means that we are consuming resources that belong to the future; actually, we are borrowing them. Inevitably, the condition of our environment largely determines the quality of our life and health. Since all living creatures are connected by numerous interactions and each individual is a member of an ecosystem and of food web, explaining the possible consequences of environmental problems for each individual, and emphasizing the importance of behavioural change is significant for individuals displaying all the identified types of attitudes.

In samples of students from six countries, self-transcendence values were found to correlate positively with biospheric environmental concern, in two samples they correlate positively with altruistic environmental concern, while in three samples self-transcendence values correlate negatively with egoistic environmental concern (Schultz et al., 2005). These results indicate that expressing higher concern for environmental problems correlates positively with self-transcendence values, which presume the reinforcement of other people's needs and surpassing selfish interests. The same authors (Schultz et al., 2005) determine that self-

transcendence values are positive predictors of pro-environmental behaviour, moderated by an awareness of the possible consequences of global issues and a sense of personal responsibility for the environmental problems. Awareness of possible consequences is directly related to knowledge, since being aware means confronting the facts, understanding them, and predicting possible outcomes. This is where the authors see the significant role of education in raising awareness of local and global problems.

Is anthropocentrism inevitably bad? There are opposing views to this problem, with some authors arguing that anthropocentric attitudes and values are benign (Grey 1998; Norton 1984; Weston 1985), while others state that they are harmful for environmental conservation (Cafaro & Primack 2014; Kopnina, Washington, Taylor, & Piccolo, 2018; Rolston 2012; Shoreman-Ouimet & Kopnina 2016). A recent study conducted in Serbia (Marušić Jablanović & Stanišić, 2020) sheds some light on this issue, finding that anthropocentric attitudes, reflecting the value of the environment as a resource, have zero correlation with self-reported pro-environmental behaviour. Connectedness with nature, on the other hand, referring to the ecocentric world view where humans and nature are equally important and mutually interdependent, correlates significantly positively with self-reported pro-environmental behaviour and it also distinguishes people with different levels of environmental activism. Therefore, the anthropocentric attitudes do not seem to be an obstacle to environmental protection, but they cannot be expected to facilitate proper behaviour or activism. The strongest correlation of behaviour was found in the attitude of apathy, referring to the indifference and lack of interest towards environmental problems and an underestimation of their size. This correlation was, as expected, negative.

The research of Dutcher and associates (Dutcher, Finley, Luloff, & Johnson, 2007) underlines the importance of connectivity with nature as a subjective experience of people and nature belonging together, where the individual perceives him/herself as part of nature and nature as part of self, thus feeling empathy for the natural environment. This is considered to be the basis of environmental values. Connectivity with nature can also be perceived as a spiritual phenomenon, that can be understood by learning about a community's tradition and religious beliefs. It is found to relate positively to pro-environmental behaviour (Dutcher et al., 2007). This sense of connectivity and empathy seems to be crucial for appropriate behaviour towards the natural environment.

HOW TO FACILITATE VALUES AND BEHAVIOR? EXAMPLES OF GOOD PRACTICE

Traditionally, education relies on the premise that more information about the environment leads to behavioural change (Hugenford & Volk, 1990, according to Carmi, Arnon, & Orion, 2015). However, numerous studies have confirmed that knowledge is not enough to change behaviour (Liang et al., 2018; Negev, Sagy, Garb, Salzberg, & Tal, 2008; Stanišić & Marušić Jablanović, 2019). Therefore, we have searched for examples of good practice of environmental education and have chosen to present several studies offering useful proposals.

There is strong evidence that learning experiences occurring in the natural environment are very important for the development of environmental knowledge, attitudes, and pro-environmental behaviour (for example Ballantyne, Fien & Packer 2001a, 2001b; Ballantyne & Packer 2002; Bogner, 1998; Lai, 1999; Rickinson, 2001; Tanner, 2001, according to Ballantyne & Packer, 2009). In Queensland, Australia, the philosophy of real-world environmental education has been applied in practice. Environmental education centres have been established in different types of environments, providing the possibility to teach about various topics while encountering real-life examples. The role of these centres is to provide personal experiences in nature, which are confirmed to have a critical role in developing adequate attitudes. Ballantyne and Packer (2009) offer a very useful description and evaluation of teaching strategies. Programs are performed under the umbrella of Productive Pedagogy (Newmann & Wehlage, 1993) that relies on five standards: higher order thinking, depth of knowledge, connectedness to the world beyond the classroom, substantive conversation, and social support for student achievement. Different types of learning activities have different impacts on students' knowledge, attitudes, and behaviour, while a reflective response was found to be the most effective out of eight learning activities, and the only one affecting attitudes. Also, the results indicate that changes of attitudes and behaviour occur due to experience-based learning, rather than due to teacher-directed learning. In general, the feelings of students accompanying the learning activities were those of excitement, surprise, and interest, and research has found that experience-based learning provokes more positive emotions. The indicators of experience-based learning are: learning by doing, spending time in the environment where student experience its characteristics, learning based on

real places and problems, using all five senses, and exploring problems in the local context. Finally, changes in attitude and behaviour are more likely to occur when there are lower positive emotions, like feeling happy or calm, than feelings of sadness or anger.

The basic idea of a "Sustainable School" is the integration of sustainability in every aspect of school life, namely the administration, the learning process, the management of buildings, transportation to and from school, and the school's relationship with the community (Huckle, 2010). An example of good practice applied in Greece (Trikaliti, 2016), relies on the philosophy of the sustainable school, which operates as a community, aiming to create a school climate in which a) learning, culture, sustainable development and health are promoted and b) the educational community is encouraged to engage with public goods and their management c) democracy and human rights are served, and d) active and creative citizens are formed. It tries to activate mechanisms for the transformation of the school into a sustainable one. The holistic approach of the school as an organization is adopted in order to encourage the teachers to gradually involve themselves in the transformation processes of their school and to follow its course of change. Sustainability at school is based on eight pillars: democracy and participation, learning frameworks, culture and arts, building and playgrounds, energy and movement, water and waste, health and nutrition, from local to global.

Lithoxoidou, Georgopoulos, Dimitriou and Xenitidou (2017) performed didactic intervention involving 75 kindergarten children in order to facilitate adoption of more environmentally friendly values. The educational intervention included activities designed to be connected on the one hand to the forest close to the kindergarten and on the other hand to be part of a unified environmental awareness program. The methodology they followed had elements of experiment with an introduction and final evaluation as well as research that emphasized: extracurricular learning (e.g.. forest trip), group work, emotional involvement, role-playing games, informing parents and finally a party in the schoolyard. It had the characteristics of a holistic, experiential, and child-centred approach that are key components of the project method. The intervention also included an evaluation of the program with a quantitative comparison of the answers to a questionnaire measuring pro-environmental values. The comparison showed significant differences and the development of both anthropocentric and eco-centric environmental values in the children who participated in the project. More

specifically (Lithoxoidou, 2006), empirical research has identified three categories of values:

a) egocentric: based on interests related to the consequences of a state of affairs on oneself, the avoidance of punishment, hedonism and practical interests of the individual;
b) sociocentric: related to the individual's interest in other people and the need to respect stereotypical environmental rules; and
c) environmental with two subcategories:
c1) anthropocentric, focusing on the health, utility, recreational, and aesthetic value of natural resources,
c2) ecocentric, related to the individual's interest in the needs of other life forms, to the belief that all life forms have intrinsic value, and to the emotional relationship between the individual and other life forms.

These results "fit" well with the proposed model (Diagram 1) and should be taken into account when planning environmental activities at school.

DISCUSSION

The state of the environment 45 years after the acceptance of the Global Framework for Environmental Education makes us wonder not only if societies, taken globally, have tried hard enough to achieve the proposed educational objectives, but also what the reach and the influence of education really is. The theories and research of values form a valuable source of information because they explain what kinds of values should be developed through education, and prove which values correlate positively with pro-environmental behaviour. We can also learn which values constitute barriers for such behaviour. One of the most widely used theories for investigating environmental values and their predictive power over behaviour, Schwartz's theory of values, indicates that Universalism, meaning understanding, appreciation, tolerance, and protection for the welfare of humanity and nature is the most important value type to be developed through education if we wish to achieve behavioural changes with regard to the environment.

The theory and research of Inglehart and Welzel (World Values Survey, 2020) refers to the way the perceptions of the importance of preserving the environment depend on the culture and socio-economic conditions. This also implies that we

can expect a rise in environmental values importance to be a rather difficult task in African-Islamic and Christian Orthodox cultural regions, where the customs and habits of generations can form a barrier to the improvement of pro-environmental behaviour. Society itself influences values and intentions through the examples an individual encounters and through the expectations and acceptance of certain behaviour by significant others. Further on, it seems that societies whose generations live in insecure conditions, with citizens struggling for their families' survival, cannot be expected to worry about the survival of the planet. At some points, people are placed in a very difficult position of choosing what is more important: to open new jobs or to preserve air/water/soil quality? When making this choice, poor societies tend to easily accept compromising the environment.

Furthermore, cultural values presented on the cultural map for the period 2010-2014 (World Values Survey, 2020) should also be interpreted taking into consideration the actual policies conducted by countries, since the values embraced by citizens can diverge from the policy and decisions made by governments. For example, USA and UK, in spite of having rather high self-expression values actually represent rather "hungry consumers of the Earth's resources, with much higher ecological demand that supply, while Russia, with high survival values has a higher ecological supply than demand" (International Business Degree Guide, 2020).

Researchers continually indicate that there is a gap between attitudes/values and pro-environmental behaviour, and this issue has been addressed through different theories and empirical studies (Kollmuss & Agyeman, 2002). The theory of planned behaviour of Fishbein and Ajzen. Blake (1999) states that individual, social, and institutional constraints should be considered in order to understand the discrepancy between values and action. Therefore, it is not only individual values or cultural norms that influence our behaviour, but different kinds of subjective and objective barriers, as well. Trying to understand why knowledge and skills learned at school or the values and attitudes developed throughout lifespan, do not comprise stronger predictors of actual behaviour, we need to study the actual circumstances. The ecological problems that we come across are usually highly complex, demanding knowledge and skills from different domains. The circumstances in a country may also be environmentally unfriendly: offering no dumpsters for recycling, no pharmacies to collect outdated drugs, and no safe roads for riding bicycles, posing barriers to proper behaviour.

Universalism belongs to the pole of self-transcendence, the model opposed to self-enhancement. The theory proposes that in a single act one must choose either to work for one's own welfare or for the benefit of humanity and nature. According to the results of Schultz and associates (2005), this value is present in biosphere environmental concern (referring to concern for all living beings), and less in altruistic environmental concern (where an individual is concerned for all the people in general), while it is sometimes negatively related to egoistic environmental concern (where the individual is only concerned for him/herself). People who include aspects of nature within their cognitive representation of self tend to be concerned about more than just themselves. "Self-enhancement reflects a narrow construal of self, one that is less inclusive of other people or of other aspects of the living world. Such a self-construal leads to more egoistic concerns and a focus on the threats to self posed by environmental problems" (Schultz et al., 2005: 470). This statement is in line with the findings of the Serbian study indicating that connectedness with nature is related positively to pro-environmental behaviour, which is not the case with the anthropocentric attitude, where nature has value as a resource for people. These results indicate that education that confronts children with the fact that nature preservation is necessary for their own safety as well as for the benefit of their social surroundings and tries to facilitate anthropocentric values is not wrong. Including nature in the perception of self is certainly a more amiable goal and more difficult to achieve. Still, it is certainly worth every effort. The experience that we are part of nature and that it is part of us together with a sense of empathy with other living beings seems to be crucial for appropriate behaviour towards the natural environment (Dutcher et al., 2007). In achieving this, the integration of knowledge from social and natural science subjects, cooperation of schools with the wider community, and regular going outside, beyond the school walls is necessary.

CONCLUSION

To change something, we have to do something!

For decades, environmental education has been providing knowledge, skills, and environmental values intended to facilitate environmentally friendly behaviours and actions. Regarding environmental activities, children learn effortlessly because

the content of learning is directly related to their interests and the problems they face in their daily lives. Therefore, we can expect them to be internally motivated for environmental topics and outdoor activities. Through experiential, participatory group activities, children gain powerful experiences, due to active use of their senses and the emotions that these perceptions evoke. The good practices we have mentioned prove that the adoption of environmental values is possible through interesting activities that introduce many alternative teaching and learning techniques, quite far from the frontal teaching of the classical school.

Anthropocentric and the ecocentric values are not mutually exclusive; teaching can address the necessity of preserving natural resources for the sake of humans, and should make efforts to facilitate appreciation of nature as a phenomenon possessing its own intrinsic value. Both lessons and all extracurricular activities of the school can contribute to achieving this goal. It is a necessary condition for all students to be introduced to environmental values, and not just students who participate in the usually limited number of volunteer groups operating in schools. Even then, however, school work will not have expected results if other factors do not support it; for example, if the family is not imbued with similar values (Norms, Chart 1) and if the culture in general supports different values there will be constant conflict.

This goal can be achieved in the context of a sustainable school (Knowledge and Education, Chart 1). The first urgent request, then, is for a state to make a strategic decision to transform its schools into schools for sustainability and sustainable development that will develop a culture of pro-environmental values and behavior. The important others in schools are the teachers in first place. In order to carry out the task of promoting pro-environmental values, they need to be well informed and trained. A second urgent need, therefore, is the continuous training of all teachers on major environmental issues and ways of disseminating relevant information in their lessons, as well as in teaching methods and techniques that will help them plan appropriate educational activities in order to lead their students to a good knowledge of the environment and the adoption of environmental values. In conclusion, our proposal is the strategic choice of an alternative, sustainable school, with a well-designed curriculum and a school culture inspired by constant concern for the preservation of the environment, with respect for all living beings and prudent use of other natural resources, open to the community and to outdoor

activities and experience-based learning. In this way, the convergence with the decisions of UNESCO and other International Organizations will be more efficient.

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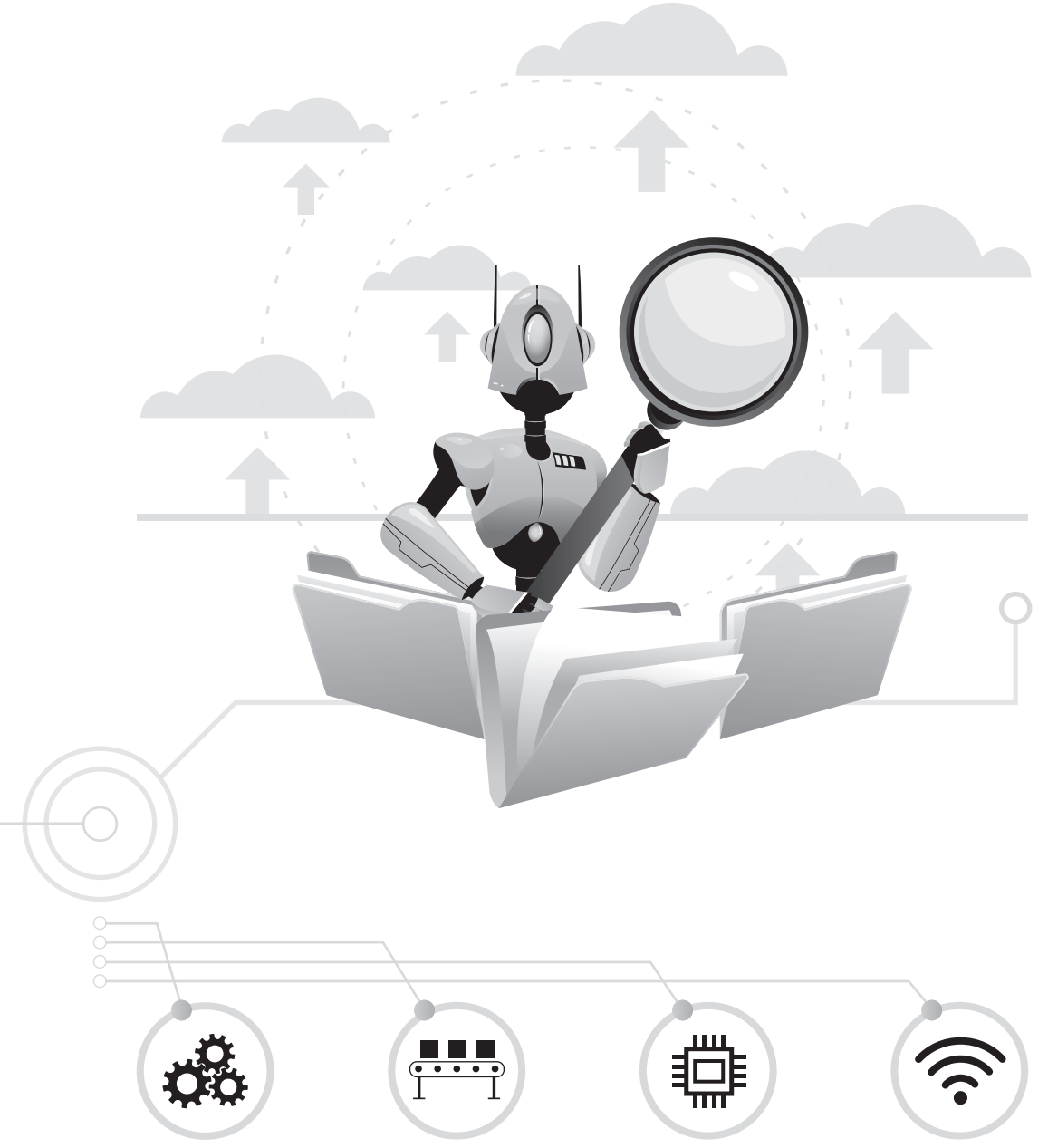

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FROM REVIEWS

Main aim of the monograph titled *Problems and perspectives of contemporary education*, is to thorough explore, critically analyze and elaborate complex, dynamic, multilayers and reciprocal relationship between significant changes in educational social environment and readiness, of educational system to anticipate, recognize, understand and adequately respond to those challenges. All contributing authors enthusiastically embraced the notion that education presents an important and proactive agent of social changes and consequently accepted all challenges as an opportunity for improvement and development of both society and educational system.

Professor Emeritus Djuradj Stakic
Pennsylvania State University, USA

The monograph is dedicated to looking into extremely significant and current concerns within educational policy and educational practice. The selected topic is viewed from the perspectives of contemporary theoretical approaches, but it is also empirically researched. A very large and relevant literature was used both for explaining the selected research subject and discussing the obtained results. A diverse, contemporary methodology was applied in researches, and the authors of works, starting from the existing results, analysed issues at a deeper level and illuminated some aspects that had not been studied thus far.

Professor Marina Mikhailovna Mishina
Russian State University for the Humanities, Russia

The main topics covered by the monograph can be classified as traditional to some extent — related to approaches to learning, language culture etc., and modern — connected with the andragogical view, coaching in teacher training, also the problem of distance learning during the covid pandemic, and models for preventing problem behaviors…The main leitmotif that permeates the content of all presented articles is the topic of the development of key skills, attitudes, experience, creativity — by both subjects in the educational process, and it gives semantic integrity to the monograph.… In view of the new social realities, a reasonable emphasis is placed on the continuing education and development of the teachers themselves, dictated by the accelerated pace of social change.

Professor Teodora Stoytcheva Stoeva
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