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ACCELERATING THE FORMATION OF CHILDREN'S VALUES IN A LEARNING ENVIRONMENT

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Abstract. *Introduction.* The present publication presents the results of an experiment conducted on the territory of Bulgaria with children aged 4.5 to 6 years.

The aim of the research is to work out a model of interaction based on the contemporary knowledge of preschool children's development and cognitive process peculiarities of children aged 4.5 to 6.

Methodology and research methods. The methodology of the research is based on theories and classifications of values by Rokeach, Graves, Inglehart (values of survival and self-expression) and Hofstede (desired and desirable values). Active approach and principles of determinism (S. L. Rubinstain, A. C. Brushlinskiy) and interiorization (L. S. Vigotskiy, A. I. Leontiev), systemic approach (B. F. Lomov, B. N. Rizhov) are used in the experimental part of the research work. Psychological neoformations are educed by means of the diagnostic test proposed by P. V. Stepanov, D. V. Grigoryev; I. V. Stepanova.

Results. There have been visible changes in the profiles of children after the experiment held. It is found out that value system formation in childhood is influenced by the development of higher cognitive processes. This formation can be accelerated by specially organized social cultural and learning environment that widens children's understanding of the world they live in. As a result they start finding sense and realize values. There appears a transfer from knowledge to self-regulation behavior.

Scientific novelty. Pilot data got during the experiment prove the model is an innovative method of pedagogical interaction and a «practical tool» for teachers. Four algorithms are developed to support cognitive, emotional and volitional processes, including thinking for accelerating the formation of values of children 4 to 6 years old.

Practical significance. The suggested model is particularly suitable for use in multicultural and heterogeneous social composition groups.

Keywords: pedagogy, values, society, methods, multicultural environment, social environment, education, terminology, thinking.

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УСКОРЕННОЕ ФОРМИРОВАНИЕ В УЧЕБНОЙ СРЕДЕ СИСТЕМЫ ЦЕННОСТЕЙ У ДЕТЕЙ ДОШКОЛЬНОГО ВОЗРАСТА

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Аннотация. *Введение.* Публикация посвящена проблеме формирования в обучающей среде системы ценностных отношений к миру и окружающим людям у детей в возрасте 4,5–6 лет. Описаны результаты эксперимента, проводимого авторами в различных образовательных учреждениях Болгарии.

Цель статьи – представить разработку и итоги апробации модели социального взаимодействия, основанную на современных знаниях о развитии детей старшего дошкольного возраста и об особенностях эволюционирования познавательных психологических процессов в этом возрастном периоде.

Методология и методы. Методологической основой исследования выступили теории и классификации ценностей М. Рокича, К. Грейвса, Р. Инглхарта (ценности выживания и самовыражения) и Г. Хофстеде (желаемые и желательные ценности). В экспериментальной части работы применялись деятельностный подход, принципы детерминизма (работы С. Л. Рубинштейна, А. К. Брушлинского) и интериоризации (труды Л. С. Выготского, А. И. Леонтьева), а также системный подход (исследования Б. Ф. Ломова, Б. Н. Рыжова). Психологические новообразования у воспитанников детских садов выявлялись на основе диагностического теста, предложенного П. В. Степановым, Д. В. Григорьевым и И. В. Степановым.

Результаты. Установлено, что формирование системы жизненных ценностей в раннем детском возрасте происходит под влиянием развивающихся познавательных процессов. Специальным образом организованная социальная, культурная, обучающая среда, расширяющая понимание ребенка об окружающем мире, может ускорить это формирование. Помощь ребенку в нахождении «смысла» и осознании ценностей человеческих отношений способствует трансформации знания в поведение, возникновению форм «саморегуляции» поведенческих реакций.

Научная новизна. Предложена модель активизации развития системы ценностей у воспитанников детских садов. Данная модель является инновационным методом педагогического взаимодействия взрослого (воспитателя, психолога) и ребенка и детей между собой и может служить «практическим инструментом» для учителя. В рамках модели сконструированы четыре алгоритма развития познавательных (включая размышление), эмоциональных и волевых процессов у дошкольников 4–6 лет.

Практическая значимость. Экспериментальные данные, полученные в ходе апробации авторской модели, показали ее эффективность. Описанный метод воспитания и обучения особенно продуктивен в мультикультурных и разнородных социальных группах.

Ключевые слова: педагогика, ценности, общество, методы, мультикультурная окружающая среда, социальная среда, терминология, мышление.

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Introduction

Value systems are a key factor in the motivation of social members' behavior. Therefore, the formation of desirable social value systems is essential for any society. The fact that value systems are formed by the age of 10 gives the targeted impacts in this crucial period and defines a special role of educational institutions. They need to form effectively stable values tailored to the specific characteristics of modern society – the availability of intensive interaction of different cultures in particular.

Educational institutions need to compensate deficits in socialization of specific risk groups, including children from marginalized groups, children left in the country while their parents work abroad, children of immigrants who need to integrate into the host society. These tasks faced by the educational system make them set new goals and find new methods for children's adaptation and upbringing.

The problem is particularly topical for societies undergoing rapid and radical transformations. Political and economic changes in Bulgaria after the 80's result in value systems changes that affect the basic and instrumental values of fundamental importance and re-position them in the value hierarchies.

The country is opened to the World and global trends penetrate into it, individualism and activism especially.

Specific legal institutional and socio-economic conditions, however, lead to specific modifications. Many studies show that instrumental values go up, some of them in advanced democratic societies receive a certain negative moral judgments. Another distinct difference is observed in developed European societies in plane values of survival and self-expression. In Bulgaria the values of survival definitely dominate.

A natural reflection of the state of the society is observed among children from an early age which we were able to partially track down in the present study.

Materials and Methods

The purpose of this study is to develop and verify methods for interaction between a teacher and a group of children aged 4 to 6 years based on the present knowledge of preschool children's higher cognitive processes development. These methods are aimed to become a computer integrated methodological guidance and be used to accelerate the formation of value orientations in an educational environment.

The main objectives of the study are:

- to determine the characteristics and current individual rate of each participant by means of incoming / outgoing diagnostics;
- to determine the psychological conditions for the formation of values and relationship orientation;
- scientific – to work out a practical basis to develop and experimentally justify the methodology for accelerated formation of instrumental, desirable postmaterial values, which is to help practitioners to work in a multicultural, heterogeneous social environment.

Our investigation is based on several theoretical concepts. The first to be mentioned is «General theory of value» (1926) by Ralph Perry. The researcher identifies thematic circles that involve eight «kingdoms» of values, morality, religion, art, science, economics, politics, law, and customs. According to the classification of values offered by Rokeach and Graves (Graves, 1966, 1970; Rokeach, 1973, 1979) the values are divided in two groups: terminal and instrumental. Hofstede speaks of desirable and undesirable values. In our research work we mainly focus on the formation of a set of values.

We studied the dynamics of the results of deliberate action values – Motherhood; Earth; Peace and World; Mankind and Creation – from the terminal values. Each material is produced as an instrumental one, e.g. Family, Work and Labor, Culture and Knowledge. In relative terms we have selected values from three thematic circles: attitude towards the world, towards people (I and my equals; as well as, me and different ones from me) and attitude towards creation (labor, culture, knowledge). Also, we have formed thematic lines to study the dynamics of terminal values formation in the course of deliberate actions taken by the teachers. These thematic lines are presented in

the Table 1 for convenience of the context logic, but the same information could be submitted to the lines as operationalization of values (Table 1).

Table 1

Thematic lines to study the dynamics of terminal values formation

Terminal	Instrumental post material desirable	Instrumental material desired
1. Motherhood	Citizenship, patriotism	Philistinism, social consumerism
2. Earth	Love, respect for nature and caring attitude towards its riches	Customer relationship to nature
3. Peace and World	Reject to violence	Militarism, aggression to impose opinion
4. Creation – (Labor and knowledge – higher level, instrumental)	Love for labor, creativity, curiosity, systematics, accuracy	Ignorance laziness, neglect
5. Culture	Intelligence	Violence, hooliganism, vandalism
6. Mankind <ul style="list-style-type: none"> • I and my equals • me and the different from me • Me as a body and health • Me as a mentality • Inner world and balance 	Humanism, compassion tolerance Health Care, striving to live healthy Accepting yourself, mental health Harmony and balance	Cruelty Nationalism, racism Bad habits, progressive destruction of the body Inferiority complex

Stage 1

We additionally introduced a parameter of a sustainability profile related to any observed topic – situation (positive, negative) and sustainability (positive, negative). Profiles and questionnaires were developed on the idea of P. V. Stepanov, D. V. Grigoryev, I. V. Stepanova.

The measurement was conducted in object-practical situations, in the context of mental processes and thinking maturity for the selected age. The researchers got anonymous responses. The provided information included each child's ID, information on sex, age, social status of parents (1 – high, 2– medium, 3 – low); personal de-

terminants or status in the group (a leader, preferred, accepted, rejected); information on basic values orientation (tenor of life) – dissonance, consonance; dynamics – sustainable positive or situational – negative (ordinal dynamics – dynamics quality); behavior towards other children: 1 – communicative, 2 – moderately social (closed nature), 3 – non social (intro), 4 – aggressive / arrogant (insolence).

Several methods were used to get the information

1. The teacher's observance of children's behavior in interactive situations (formal environment).
2. Monitoring in non-formal media – fixing and analyzing verbal and nonverbal reactions of children when they respond verbally.
3. «Face to face» interview wherein the children's oral answers are registered.

Table 2

Sample of a child's scorecard

Name	Gender	Age	Family status	Behaviour towards other children	Concepts and attitudes to key issues	Why is the child included into the observation group	Characteristics
A	F	5	High social status	Striving for leadership	She knows many stories even more complicated not suitable to her age	It's interesting to study this child	She likes to tell stories
Affirmation №							
EARTH	Stray dogs should be extirpated because they can be dangerous						

Our research work is not finished yet and will be carried on in 2017. One hundred and thirty two children aged 4 to 6 from 6 cities in the North-

ern, Central and Southern Bulgaria took part in the experiment. Half of them (66) are from poor families, the other half are from families with high and medium status (control group). Thirty two children (approx. 25%) are from mixed marriages, children who returned from abroad, children of immigrant families (16 in each group).

A description of the scorecard principles is given below:

- each concept is represented by 7 affirmations;
- a child participates in activities and expresses the degree of consent or no consent (-4.... +4);
- a child can maintain neutrality (0);
- the results are evaluated by the teacher during the situation;
- the results are confirmed with the notes and observations of the child's behavior by teachers (video);
- the scorecard includes misleading affirmations.

As seen from two charts placed below a positive dynamics was achieved in Earth and Labor values formation during the experiment. At that stage of statistical processing, the results of all children were taken into account.

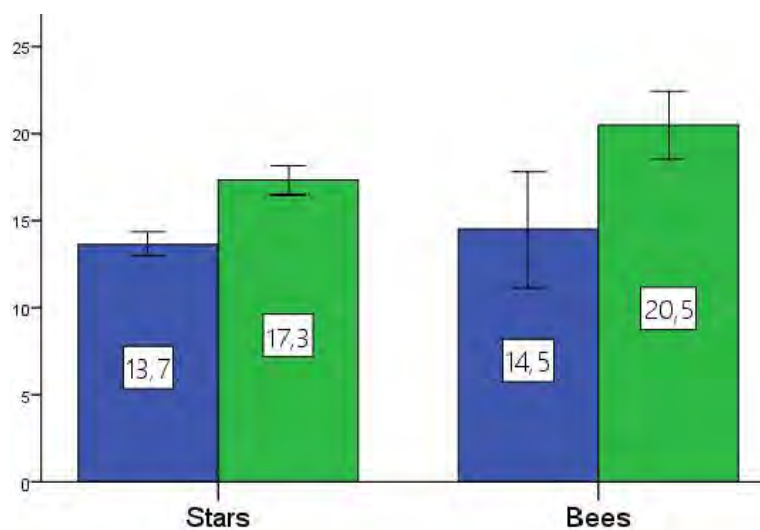


Chart 1. Dynamics of EARTH value formation:

■ – «Bees» and ■ – «Stars» before and after the experiment, average score

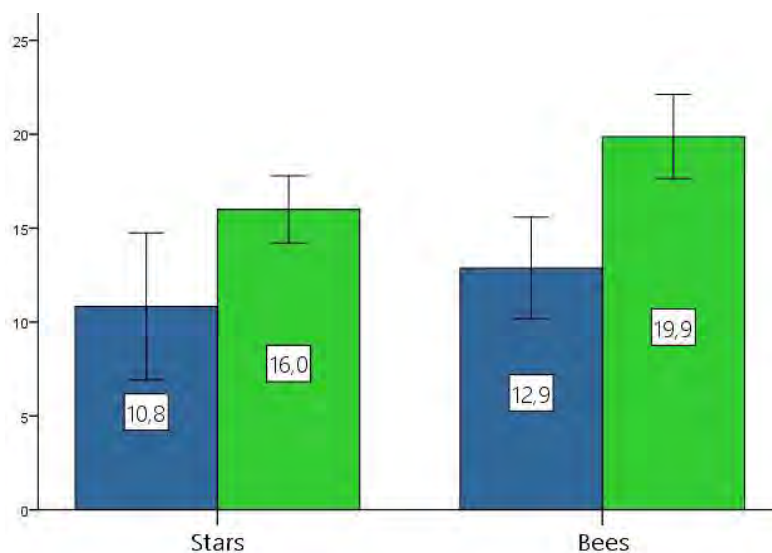


Chart 2. Dynamics of Labor value formation:

■ – «Bees» and ■ – «Stars» before and after the experiment, average score

There was a significant statistical difference in Earth value between boys and girls before the experiment but at the end of it there was none. As Labor value is concerned a significant statistical difference it is noticeable before and at the end of the experiment (Chart 3, Chart 4).

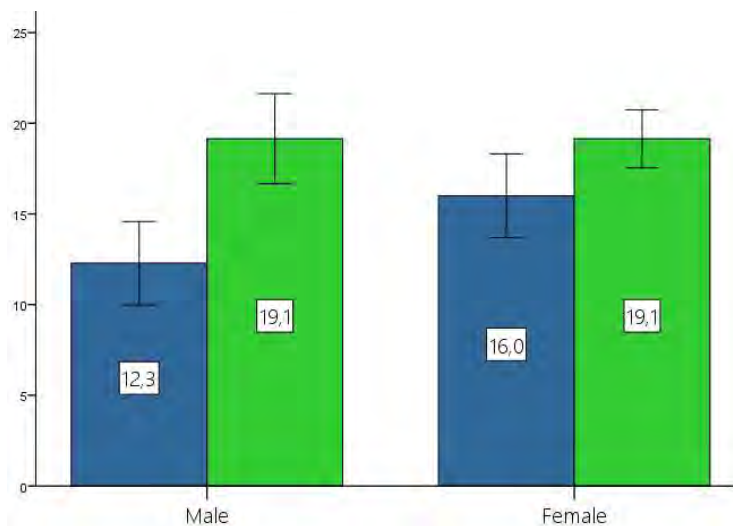


Chart 3. Indicators of Earth value for boys and girls, average score

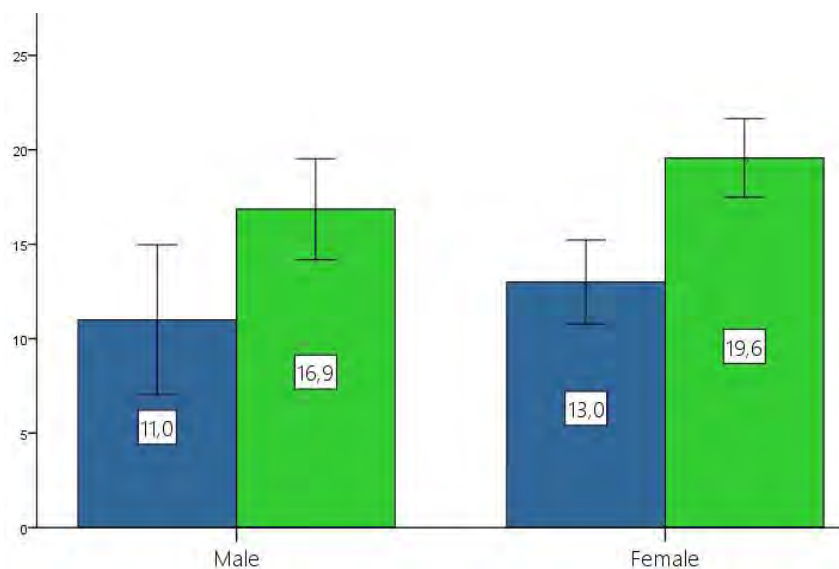


Chart 4. Indicators of Labor value for boys and girls, average score

Thus, we can conclude the charts above illustrate an upward trend (positive changes) in both values performances.

Stage 2

This stage deals with designing an environment for multicultural interaction through the development of concepts and practicing cognitive processes, including thinking (training – environment for accelerating the formation of instrumental, postmaterial desirable values).

Terminal values selected in the study are represented in State Educational Standards (SES) as educational fields. The desirable instrumental values are treated in SES as results.

Unfortunately teaching resources and textbooks are still old fashioned and not suitable to meet the challenges of the day with its demand for «soft skills» of the 21st century and new concepts of literacy. The contemporary reality, the dynamics of social processes and activities require amendments in bringing up children. Early development of cognitive processes, particularly those related to higher levels of thinking and creativity are of paramount importance. Besides, it is extremely necessary to synchronize the concepts and norms of the heterogeneous socio-cultural environment children live in.

Psychological processes in experimental learning environment are considered: cognitive (cognition), emotional and volitional. The following levels of maturity in cognitive processes are taken into account, i. e. working environments are tested according to the age of children, designed and conducted in interactive situations based on basic and higher cognitive processes (children aged from 3 to 6).

Several algorithmic frameworks of pre-school situations were worked out as criteria of psychological characteristics of postmaterial desirable values.

Based on the children's profiles, an «ideal» was planned (in the «zone of proximal development») according to the level of formation of cognitive, emotional or volitional behavioral components.

The level of formation of different values was expressed in points and interpreted in words. Let's take Earth value as an example (Table 2).

Ideal for the highest level of formation

From +15 to +28 points (sustainable positive attitude) – the child has developed environmental consciousness. It is natural for him to feel pity for his favourite animals and he is ready to devote time to them. More than that, the child takes care of the nature and finds these activities important personally for him. This child will surely adopt an abandoned puppy, will water flowers without waiting for being praised by adults. The child lives in harmony with the environment and likes it.

Algorithmic frameworks called *Listing* and *Discovery* (concepts) were worked out for the earliest age group (3 to 4 years). As children grow up and improve their cognitive processes they get able to fulfill more complicated tasks. Therefore, other algorithmic frames were offered, i.e. *Summary and Deduction*. The frames for elder children include a wide range of emotional states (emoticon) including the area of children's fears and activities requiring more strong-willed efforts, project activities, for example. Still other frames are called *Linking* and *Layers*. Inductive or deductive reasoning is searched in the language to master speech habits and develop the imagination. A personal or group decision presented as a result of the activity is the desirable target.

Research results

The comparison of Charts 3, 4 (presented above) and 5, 6 (placed below) shows a better progress in developing Earth and Labor values in «Bees» male and female groups. The teachers seemed to work more effectively with these groups of children, though some other explanations could be found after a careful investigation which is to be held.

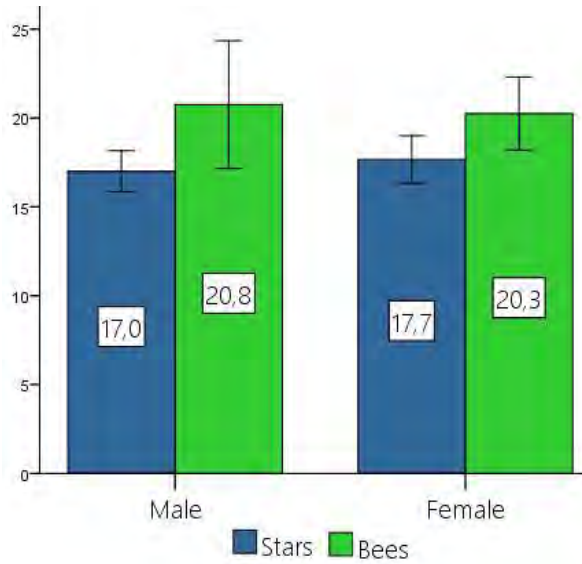


Chart 5. Indicators of EARTH value after the experiment, average score

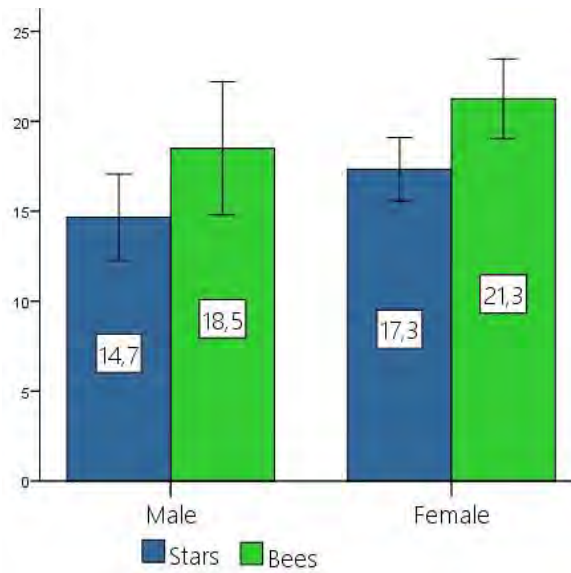


Chart 6. Indicators of Labor value after the experiment among boys and girls, average score

Correlations between experimental environment and skills requirements of the 21st century

Within the experiment children are delegated freedom of speech and independence in organising activities. They are stimulated to create their own «hypotheses», give arguments and comments. The atmosphere and the environment are similar to those of brainstorming. Teachers refrain from assessment and demonstrate respect to every child and his/her proposal.

If certain difficulties in understanding occur or children lack knowledge, teachers help them stimulating thinking process.

IT-tools are freely used.

Classes were systematic and rhythmic

Classes are held twice a month, within three months. Algorithmic frameworks are chosen according to the age of children and / or alternated. The content is selected from the curriculum of the educational establishment.

Discussion and conclusion

This study shows that it is possible to rapidly form desirable instrumental values among children of preschool and early school age. Algorithmic frameworks promote conducive and multicultural interaction by developing accelerated conceptual apparatus, cognitive, emotional and volitional processes.

A presented educational environment is better aligned to the requirements of the 21st century quality education based on the integration of neighboring sciences and practices (sociology, psychology, pedagogy).

A possible impact of educational strategies on the formation of values is presented for the first time. The Programme worked out and probated in several Kindergartens of Bulgaria includes standard / algorithmic / frames for children's development. It is applicable in a multicultural and heterogeneous social composition environment. Simulated learning environment activates thinking, expands the conceptual apparatus and provides an active position of the learner. At the same time, it is a prerequisite for a rapid synchronization of desirable values necessary in a multicultural environment.

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