The Roma pupil uniqueness and their creativity development options


This study discusses issues related to the education of Romani children and their development in contemporary schools. The focus is on the options for developing Romani children’s creativity and skills. The author provides a theoretical analysis of the uniqueness of Romani children; in particular, she analyzes their specific psychological functioning. The author describes a creativity development program which has been designed for Romani pupils to foster their uniqueness. This program has been experimentally verified. The study focuses on the theoretical basis, objectives, methodology and results of an experiment which was aimed to test the effectiveness of the creativity development program in educating Romani children. Changes in Romani children’s creativity are subjected to quantitative and qualitative analysis. The interpretation of research results and findings provides innovative solutions for teaching Romani children.

KEY WORDS: creativity, criteria for assessing the scope of creativity, creativity development program for Romani pupils, uniqueness of Romani children, psychological functioning of Romani children, specific mentality of Romani children

Introduction

The international Declaration of the Rights of the Child defines rights and obligations of us, the adults, towards children regardless the race, mental level and social background. One of the rights of
the child is the right to education. The right to receive education is entitled to all children, that is, to the Roma children, too.

Trends in education, such as humanity, democracy and creativity, are entitled to all pupils, and so to Roma ones as well. But in the institutional practice, to put it simply, the statement should not imply that the Roma pupils are a true copy of the others. If we accept the premise introduced above, we should be obliged to elaborate specific educational curriculum for Roma pupils; and in addition, on psycho-didactic level, elaborate such educational strategies that would take into account mental and social uniqueness of these pupils and be effective for their personal development. After all, they have unique mentality and special way of life; their education should be unique, too.

Scientists researching the education of the Roma people consider it to be crucial for their sociability, culture and integration. In our geographical location, scientists such as Horňák (2005), Portík (2003), Petrasová (2008), Balvín (1997), Kalej, Zezulová (2012), Daňo (2004), Dargová, Štúričeková (1999), Gabala (1999), Darák (1999), Vanková (2012), Říčan (1998), etc., scrutinized the theory. Their views on the Roma children development agree that it is determined by such factors as Roma uniqueness, different speech development, the Roma language, different cognitive development, unreadiness for school attendance and subsequent adaptation to fulfil the school requirements, prejudice including scepticism towards Roma children and effectiveness of their education and training; different eating habits (malnutrition, irregular eating) conditioned by high unemployment rate and subsequent poverty; Roma families migration or their disregard to compulsory education. In the Roma optics, the school as an institution is the institution of the Whites; thus the education does not represent a value for them nor it is the sense of their lives. They could do without it in their nomadic past as well as in the past regimes; now, they can do without it in their colonies, too.

Regarding the education of the Roma children, we should not only be familiar with these identified and unidentified factors, but
we should also try to find the ways, forms and methods effective enough to solve the problem of education and training of the Roma children, which is determined historically, economically, socially and sociologically. However, there are only a few systematic approaches to this problem. One of them is Zelina’s systematic elaboration of Roma children education, known under the acronym DROMUS (see Zelina et al., 2002), which can be used not only for socially disadvantaged population but for population in general.

The fundamental axiom of the Roma children development in school is that their educational process shall not shape and mould them into an idealized form but it shall adopt their mentality and way of life. This means that the process should be defined and controlled by their specific way of life, which is the origin of their mental and social specification; the classes and subjects should be designed and delivered in accordance with their life requirements in order to saturate their needs and uniqueness.

**Roma children uniqueness**

Roma children intelligence does not fundamentally differ from the intelligence of other children (Horňáčk, 2005) but their mentality is determined by little challenging social or family background. It is the mentality that differs from the rest of the children. Their perception is unique and so is their imagination, visions, memory, and, after all, their thinking. (Dargová, Dušičková, 1999).

Man is not driven around only by his feelings. Higher form of psychological connection of a body and the environment is represented by perception. Perceptions are the result of feeling and perception. They are affected (and conditioned) by psycho-physiological abilities and functions of neural system and they are determined and developed mainly by social learning based on the achieved level of development. Perception is controlled by 2nd signalling system, thinking and speech. Roma children, at least majority of them, do not master the standard language; therefore they do not perceive
the shapes correctly. The shape perception means the form and size of the object perceived. “Shape” has specific limits in the Roma language; therefore difficulties in the shape orientation are not caused by their “dysfunctional mentality” but by their native language, which does not sufficiently covers this area. If we denote the action by an adverb in its basic form, they are able to perceive the shape in the same way, as if we denoted it in comparative. Shadows and perspective are more difficult for them to perceive; but their perception of motion and space is excellent. In the perception of time, it is fundamental for them to finish a specific activity in short time and fast; the faster, the better. Like other children, they also have difficulties with time perception. Yesterday, tomorrow... the time is an abstract concept; to understand it, embrace it in the 1st or 2nd grade of elementary school is very difficult despite demonstrations and special motivation, games included. Children are able to understand time in the 3rd and 4th grade. They are more familiar with the terms such as morning, noon, evening, day, night... because they are able to identify them according to the activities they do during that specific period. The teacher must be aware that they will not be able to distinguish time periods in the 1st grade or that they cannot identify timeline of the day, week, year. Children are able to do so only in the 3rd and 4th grade of elementary school.

Ideas originate from perception and are related to all senses. The Roma pupils have difficulties related to visual notions in fine arts classes, and auditory musical notions. For them, it is a problem to move in the key and rhythm of a song learnt; but they have excellent notion of movement, of dancing in particular. They are able to preserve and reproduce ideas in work, sports and especially in dancing. In terms of teaching, an interesting issue is their imagination. The Roma children seem to have no imagination at all. Probably, it is directly or indirectly influenced by the social phenomenon (little challenging social environment and low language culture with lack of standard language notion, in which the visions should be presented at school). Moreover, the factor of transformation of visions into intentional lies needs be taken into consideration;
these lies are existential for them and they often help them to survive.

Memory as defined in psychological literature (Kubáni, 2010) has two meanings: a psychological process, and an ability of an individual. The psychical process consists of inculcating processes, preservation and restoration of psychical experiences, operations and motor actions. The ability represents more permanent neural and psychical conditions and personal qualities, such as remember, preserve and recall psychical experiences, operations and motor actions. Regarding the memory processes in teaching the Roma children, it is necessary to know and concentrate mainly on the factors that affect the memory. The Roma children are not interested in the curriculum, which they are not familiar with in the real life. They are interested in and remember the things, phenomena and activities that are directly related to their person and their life. If something is crucial for their life, they can easily remember it. The differences are in holding and inculcating material in the memory according to its content and size. The Roma pupil’s memory resembles a mechanism operating on the platform of fast, short, clear and necessary. They do not remember variables such as volume, power, time because they do not want to remember them; but they remember variables such as weight, temperature and length. As the Roma pupils almost never write their homework /which represents one of the ways of curriculum reinforcement/, teacher explains the same curriculum over and over as something new. Their memory starts to operate again if the stimulus is nature or their own lives. The same is true for remembering. They have problems to reproduce something only in oral and written form, but they can be fast and accurate when reproducing movements or drawings. Their memory is extra sensitive to negative as well as positive emotions. Especially the positive emotion memory can be used as motivation in the education of Roma children.

Speech and motion for children represent a means of gaining the knowledge about the outside world. Child needs to play with the objects, try them, in order to understand the essence of any phe-
nomens; they gain the knowledge and experiences through motion. If the speech and motion are a means of gaining the knowledge, then these are also a means of expression. The speech development in Roma children is not adequate to their actual age. One of the reasons is the lack of adequate speech model and non-stimulating environment. The promotion and development of speech is closely related to further development of thinking.

Thinking allows the identification of fundamental and universal; it enables the solution of problems. From the psychological point of view, the thinking belongs to cognitive functions of a person; these functions are of a higher level. The thinking is based on the concepts. Teaching the Roma children of younger school age cannot be based on abstract concepts but on concrete ones. The specification of these children is their experiences. These are based on the facts of their practical life. In the terms of abstraction, they do not understand the mathematical concepts.

The most significant differences between Roma and non-Roma children are in value orientation in group semantic area derived from the concept I. Non-Roma children cumulate concepts reflecting specific positive values (family, hero, success, money) that are significantly distant from negative concepts (theft and failure). In the semantic space of the Roma people differentiation of positive and negative values is more pronounced. The divergent concepts of success and failure are located surprisingly close. The reasons may vary. Either the children have indifferent, respectively no attitude to them or, which is more likely, they are not performance-oriented and so they do not assess their behaviour in the terms of success-failure (Kundrátová, 2000).

The curriculum, which the teacher is obliged to follow at school, reflects the specifications of the Roma children only marginally. As the majority of the children does not master the standard language, their thinking and its development, which is directly related to the speech, is logically of a different nature and on a different development level as the thinking of non-Roma children of the same age.
Creativity development of Roma children

The education specifics of Roma children are reflected by the curriculum. The curriculum should be based on their culture with regard to their identity and its preservation. The culture has always been the differentiating factor of human diversity; it affects the way of pupils’ perception, judgement, behaviour and acting. It also affects the way the children talk, the families and friendships function and the life experiences are processed. We therefore assume that one of the options to prepare Roma children for culturally divergent society is the multicultural education, which would support seeing the values of different cultures, their differences and similarities.

The second specification can be seen in psycho-didactic methods of education that would saturate mental and social factors of Roma children, and develop mainly speech, communication, thinking, and shape values, awake the imagination and creativity. Based on these premises, we provide our humble trial to change the Roma children education in a positive direction.

We were interested in the following question: How can be Roma children creativity developed?

We were trying to provide a satisfactory answer to the question posed. As one of the fundamental axioms of creativity is the premise that every individual can be creative, we never doubted the Roma in this regard. Also the research provided so far proved that the Roma in their figural creativity are not behind their non-Roma peers (especially in fluency and flexibility) (In Zelina et al., 2002). Based on this research, we are sure that all we need to do is to find strategic methods of “how to” develop the Roma creativity.

In the recent years, the most effective practices of creativity development have been the creativity development programmes; therefore we tried to design such programme for simulation and development of Roma children creativity. Its design takes into account the above stated mental specifications of the children thus it is designed according the rules of creative and humanistic education.
The objective of the programme was to intervene into the Roma pupil personality and release their creative capacity. The activities and tasks that we chose were oriented on development of all extra-cognitive qualities of a person; in particular creativity, fluency, flexibility and originality. Each quality was intentionally developed for one week through all educational activities. The target focus of the programme aims to facilitate the following:

- To provide Roma children with space for development of non-cognitive processes and functions,
- To develop analytical, synthetic, value-judgment/critical thinking,
- To create space for creative thinking and behaviour,
- To teach children to mutually cooperate, perceive each other and help each other,
- To allow them to experience and develop emotional intelligence,
- To provide them with space for development of imagination, fluency, flexibility,
- To enable children to develop vocabulary and communication,
- To stimulate their creativity and other mental functions.

The key structures of the programme were the following elements:

- Creative tasks including features such as attractiveness, curiosity, novelty, adequacy. The tasks were oriented on not only the development of non-cognitive function but also on fluency, flexibility, originality, value-judgement thinking and imagination. The main focus was on the strategies such as creative games, staging, situational methods, which were necessary for creative work of pupils.

- Creative climate. To facilitate the climate, we respected the opinion that it can be developed only within the climate based on trust, safety and self-confidence. This climate offers not only space for creativity stimulation but also mental relaxation and creative functions development.
Programme implementation

To fulfil the set educational objectives, educators must have been able to effectively introduce and implement the programme. Firstly, they had to be aware of its purpose; which function to develop and which activity suited best the educational objective and for whom the activity was intended. The decisive factor was the activity motivation; it should have been non-violent, attractive and adequate. The rules of each activity had to be deliberately planned and clearly explained. At the end of each activity, it was necessary to assess and evaluate its progress and final results.

Programme design

To illustrate the concept of the programme, we provide the activities that we implemented with focus on the following qualities of Roma children:

Cognitive, in which we were trying to teach Roma children to train, practice and develop their cognitive abilities and inculcate positive traits into them by a non-violent, playful way (Activities: Golden gate, Letters – words, Alarm clock, Animals…).

Emotive, in which we used various activities to awake feelings and experiencing in order to teach the Roma pupils to feel and develop their ability to feel.

(Activities: Making of the friendship bracelet, Musical fairy-tale with dramatic features “Little mermaid”, Cobweb – attributing the positive traits, A Mysterious donor, How are you?…).

Motivation focused on the leisure-time activities of Roma children. We decided to use practical activities, in which the children could take full advantage of their manual skills. In our personal experience, it was this activity that met the needs of Roma children and awoken their deeper interest in learning.


Socializing, which we consider to be the way to their social maturity, their ability to create individual interpersonal relations of
high-quality, which is essential for Roma children. In the programme activities, we were trying to encourage their assertive behaviour that allows them to realize their values and respect the values of others.

(Activities: Introducing each other, My good friend, Snowstorm The farm, Writers...).

From the point of axiology, we were trying to inculcate the hierarchy of important values into the minds of Roma children and make them able to choose the best and most important for themselves.

(Activities: Writers, Manifold wishes, Hearts, Ranking values, Happiness...).

Creative, in which we observed development of such creativity factors as fluency, imagination and especially fantasy, which we associated mainly with the development of speech and communication.

(Activities: What do you see?, Happiness, Vague shapes, New words, Grimace, Underwater world, Animal, The way across the bridge, Think-up something interesting, Discoveries, Jump rope...).

**Methodology and research methods**

The research was conducted in the following target levels:

From the point of view of teaching practice as well as research validation, we felt it was important to design the creativity development programme for Roma children (hereinafter CDP) that could saturate Roma children specifics and could be implemented in particular school. The programme was focused on teaching conditions and children school club. As it was the school with majority of Roma pupils, the children regularly attended the afternoon school club.

CDP was experimentally validated and the change dynamics of Roma pupils’ creativity was observed; in particular the fluency, flexibility, originality and traits, such as curiosity, self-confidence, intuition, diligence and sensitivity.
Our essential goal was to determine whether the Roma children creativity can be developed and how effective is our CDP in relation to creative skills (fluency, flexibility, originality) and in relation of significant qualities to creativity and education in general (curiosity, self-confidence, intuition, diligence and sensitivity).

The research was conducted in elementary schools with similar conditions. Majority of pupils at these schools were of Roma origin; the sample comprised approximately identical number of Roma children aged 8–10. (ZŠ Čaklov – 20 pupils EG, ZŠ Rudňany – 18 pupils CG; both in The Slovak Republic).

The controlled variables that were assumed not to affect the programme were the following: sex of pupils, number of pupils, school grades, teaching conditions, education of teachers and their teaching practice.

Variables, which were assumed to cause the expected changes were CDP and its tasks, mainly those designed for divergent thinking, value-judgement thinking, motivational strategies (individual relationship frameworks, collative variables, causal attributes, etc.), the climate of demands, openness, empathy and personality of the teacher.

Firstly, we conducted input measurements of both samples. The procedure of examinations was random and lasted one week in both groups. Motivation and instructions to specific tests and questionnaires were standard in both groups, as required by the chosen methods. The methods were assessed and evaluated after the input measurements took place.

Then, we implemented CDP in the experimental group. The teacher had been teaching for 8 years; 5 years in the Roma classes. She was instructed on the main principles of the programme. We prepared all experimental classes with the teacher. After the implementation had been completed, we discussed her experiences, insights and knowledge. Based on that, we modified the class design for the next classes but essentially, we followed the rules of motivating, activating and creative teaching.
The control group was taught by a different teacher with 10 years of teaching practice (three years in the Roma class); she was using the classic teaching method. After completing the experimental programme, we carried out the output measurements in both groups (under the same conditions with the identical standard instruction, in random order and with no possibility of interaction).

After the completion of educational experiment, the data were subjected to quantitative and qualitative analysis. While the research was being conducted, no significant problems causing the result distortion or change in the original objectives occurred.

*In the research, the following research methods were used:*

– WKOPAY (What kind of person are you?) is a self-assessment questionnaire for creative qualities, qualifications and personality. It observes the qualities conditioning the creativity, such as curiosity, self-confidence, intuition, diligence and sensitivity. Torrance and Khatena, the authors of the questionnaire, assumed that the higher the score, the higher the personal creativity predispositions (according to the self-evaluation).

– Torrance figural creativity test. For our needs, we used the test “incomplete figures”. The test measures three basic creativity factors: fluency, flexibility and originality.

For our research, we chose the method of natural experiment with parallel groups (experimental and control groups). In both groups, we carried out the input measurements and output measurements (ante and post measurements), which allowed us to observe the tested variable in the period of possible and hypostased changes.

For organizational reasons we were not able to provide the random sample selection; but we chose the experimental group randomly.

The common statistic methods were used to process the results. Our objective was to compare the results of ante and post measurements in both groups: in the experimental and in the control one.
We used Wilcoxon paired test. To compare experimental group (EG) and control group (CG) Mann Whitney U-test was used. The test is designed to determine the statistical significance of differences in a smaller number of respondents. In such samples, it is more accurate than t-test; in addition, it allows generalization of findings for wider population even with the smaller number of respondents. The obtained data were subjected to the quantitative and qualitative analysis.

Research findings and their interpretation

Changes in self-assessment of creative potential (creative potentials)

Khatena and Torrance questionnaire aims to identify creative preconditions in the following area:
- Curiosity, interest in problem-solving, motivation to creativity, will to solve complicated tasks;
- Self-confidence, self-esteem, nonconformity, critical approach to the environment;
- Intuition, imagination, fantasy, playfulness;
- Diligence, determination, consistency, persistence in problem-solving;
- Sensitivity, openness to the outside stimuli, sense of humour and adventure, altruism.

These qualities correspond with the traits of a creative personality and therefore we can conclude that the higher the individual score, the greater creative manifestation.

The first important finding is the fact that the input differences between CG and EG were statistically insignificant except intuition. Measurements show that pupils in CG were more intuitive, more playful and had better imagination and fantasy than pupils in EG. This difference between the groups is statistically significant at 0.05% level in favour of CG (CG-6.13; EG-4.73). The intuition factor is also interesting in terms of further development. Whereas the pupils in CG were significantly better in ante measurements, the post
measurements did not validate the result; moreover, the post measurement results were in favour of EG (EG-5.66; CG-5.4). It means that during the experimental period, the intuition of CG pupils dropped (6.13–5.4) and even better, the score of pupils in EG increased (4.73–5.55). We assume, the change in EG was caused by applying the divergent tasks, which were mainly aimed at intuition development.

Table 1. Self-assessment of creative qualities of pupils in CG and EG in WKOPAY questionnaire before and after the experiment

<table>
<thead>
<tr>
<th>Variables</th>
<th>Control group</th>
<th>Experimental group</th>
<th>Sign.: (CG-EG)</th>
<th>Sign.: Ante-post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ante post</td>
<td>ante post</td>
<td>Ante post</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A. A.A.</td>
<td>A.A. A.A.</td>
<td>p level p-level</td>
<td>p-level p-level</td>
</tr>
<tr>
<td>Curiosity</td>
<td>12.2 12.33</td>
<td>13.4 13.26</td>
<td>0.4753 0.5178</td>
<td>0.9773 0.6948</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>12.06 12.06</td>
<td>12.06 10.13</td>
<td>0.7080 0.2444</td>
<td>0.9321 0.0354*</td>
</tr>
<tr>
<td>Intuition</td>
<td>6.13 5.4</td>
<td>4.73 5.66</td>
<td>0.0372* 0.9329</td>
<td>0.0711 0.1823</td>
</tr>
<tr>
<td>Diligence</td>
<td>7.33 6.2</td>
<td>5.93 6.46</td>
<td>0.0785 0.7526</td>
<td>0.1141 0.6496</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>7.26 7.6</td>
<td>7.06 6.26</td>
<td>0.7370 0.0551</td>
<td>0.7896 0.0593</td>
</tr>
<tr>
<td>Total</td>
<td>45.0 436</td>
<td>43.2 41.8</td>
<td>0.5608 0.5061</td>
<td>0.7896 0.3942</td>
</tr>
</tbody>
</table>

Notes:
EG - experimental group A.M. - arithmetic average * differences are statistically significant
CG - control group p - level-pair, unpaired minimum at 0.05% level.
Sign. - differences significance

Based on the observations of ante and post measurements in CG as well as in EG, we can conclude that statistically significant shifts occurred only in one area. As the chart shows, the change occurred in EG, in which self-esteem and critical attitude towards environment dropped (at 0.05% level). We assume that creative tasks solving, which requires divergent thinking was not interiorized by the pupils and so it led to the re-assessment of their views leading to reduction of self-assurance and decrease in criticism of the sur-
rounding environment. In the rest of the areas observed, the score of post measurements against ante measurements did not significantly change in either of the groups.

Changes in creativity skills of pupils

The key to our research was the creativity skills development of Roma children. The greatest emphasis of our programme was on the development of creative thinking qualities.

Table 2. Creative skills of pupils in CG and EG before and after the experiment (test „incomplete figures“)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Control group</th>
<th>Experimental group</th>
<th>Sign.: (CG-EG)</th>
<th>Sign.: Ante-post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ante</td>
<td>post</td>
<td>ante</td>
<td>post</td>
</tr>
<tr>
<td>Fluency</td>
<td>9.46</td>
<td>9.53</td>
<td>8.86</td>
<td>9.33</td>
</tr>
<tr>
<td>Flexibility</td>
<td>2.66</td>
<td>2.86</td>
<td>3.2</td>
<td>4.13</td>
</tr>
<tr>
<td>Original. figur.</td>
<td>0.93</td>
<td>0.86</td>
<td>1.53</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Notes:
EG – experimental group
A.M. – arithmetic average
* differences are statistically significant
CG – control group
p – level-pair, unpaired minimum at 0.05% level.
Sign. – differences significance
** – minimum at 0.01% level
(Originality) figur. – figural, verbal

In the input measurements, the CG and EG were not equal in all variables followed. Statistically significant difference (at 0.05% level) was in flexibility factor in favour of EG. In other factors, the differences were insignificant.

Results of output measurements brought many encouraging findings. In CG no significant changes occurred. In EG, in comparison with ante measurements, increase in creative skills was re-
corded in flexibility and originality (figural) factors up to 0.01% level of significance. The output comparison of CG and EG is definitely in favour of EG, too. EG is significantly better up to three (flexibility, figural and verbal originality) out of four variables observed than in CG taught by classical method that did not support the divergent thinking. These differences are statistically significant up to 0.01%, which is, in terms of our research objectives, extremely gratifying.

**Conclusions and recommendations for practice**

In accordance with the defined objectives, our research has exposed extremely significant findings. Based on the research, we can conclude that creativity of the Roma can be developed under the institutional conditions, that is, at school and in afternoon school club. Based on these findings, the following practices can be recommended for teaching the Roma children:

1. Achieve the increase in percentage of Roma children attending the afternoon school club by positive motivation,
2. Modify the educational plans in afternoon school clubs for Roma children with the emphasis on greater use of practical activities that the children consider to be useful,
3. Leisure-time activities of Roma children should be based on their natural needs, interests and life style,
4. Organize programmes stimulating their mental functions more often,
5. Provide more space for non-violent development of their creativity,
6. Encourage them in creative activities but it may not feel as organized pressure.

In comparison with other minorities, the Roma ethnic in Slovakia formed a very unique group with typical otherness in social and cultural habits and their unique manifestations; therefore the major society should facilitate their progressive social integration. All par-
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Participating social subjects must constantly improve the quality of their educational, training and cultivating inputs. The educational activities with Roma children will require greater efforts by the people and organizations involved as well as stronger intensity, more initiatives and improved activities, more sophisticated procedures, methods and forms. It is necessary to add new methods and forms for multifaceted content to already implemented procedures and apply the new, more demanding attractive and combined educational forms step by step.

"Aver tut šaj del godi, avel tut šaj del drom, alé manušes tutar mušines te korel ča tu korkoro."

(The other can give you an advice and show you the way, but only you can help yourself to become a man.)

In conclusion, we present the most significant research findings in the graphical form.

![Box & Whisker Plot](image)

**Notes:**
- o – input measurements
- 8 – flexibility (figures)
- 12 – flexibility (circles)
- v – output measurements
- 9 – originality (figures)
- 13 – originality (circles)

Note: Graph shows statistically significant differences at least at 0.01% level.

**Graph 1.** Creative skills of EG pupils in flexibility and originality factors before and after the experiment
Notes:
1 – experimental group v – flexibility (figures)
2 – control group
Note: Graph shows statistically significant differences at least at 0.01% level.

Graph 2. Creative skills of EG and CG pupils in flexibility after the experiment

Notes:
1 – experimental group v9 – figural originality (figures)
2 – control group
Note: Graph shows statistically significant differences at least at 0.01% level.

Graph 3. Creative skills of EG and CG pupils in figural originality factor after the experiment
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Literature


