FACTA UNIVERSITATIS
Series: **Teaching, Learning and Teacher Education** Vol. 5, Nº2, 2021, pp. 123 - 135
https://doi.org/10.22190/FUTLTE211203010S

Original research paper

CREATIVE GAMES WITH DIFFERENT MATERIALS IN ARTS EDUCATION

UDC 73/76:: 371.3; 371.213.1::73/76 (497.11 Vranje); 371.3: 75:: 159.954)

Milena Stojanović Stošić[1], Jovana Stajić[2]

[1]Pedagogical Faculty in Vranje, University of Niš, Serbia,
[2]Independent researcher, Germany

Abstract. *The paper analyzes teachers' attitudes and beliefs concerning the use of different materials that can be used for artistic expression in arts education called non-standard art material (NAM)*[1]. *By manipulating and experimenting with these materials children participate in creative games that incite curiosity, initiate first original ideas and strengthen the team spirit. The research was conducted on a sample of 56 teachers who work in primary schools in the territory of the town of Vranje. The instrument used to collect the data was constructed for the purpose of this research. The results indicate the importance of the use of NAM in arts education – their application in the realization of a great number of units since the first grade of primary school develops creative and critical thinking among pupils, which further contributes to a more creative approach to teaching other subjects.*

Key words: *creativity, creative games, arts education, NAM.*

1. INTRODUCTION

The word 'creativity' originates from the Latin phrase *creation ex nihilo*, which signifies creation of something out of nothing. Historically, creativity has been observed and treated differently, ranging from the opinion that it is a gift from God, an external inspiration of muses, through the idea that creativity is tied with madness, to the belief that it is half-way between man's rational and irrational part.

Received December 03, 2021/Accepted December 24, 2021
Corresponding author: Milena Stošić Stojanović
Pedagogical Faculty in Vranje, University of Niš, Partizanska 14, 17500 Vranje, Serbia
Phone: +381 17 422 962 • E-mail: milenas77@gmail.com
[1]A vast array of semi-shaped, refuse material for recycling, natural material that has found its application in arts education.

The first research into the topic of creativity began over half a century ago, when its importance was emphasized by American psychologist Gilford (1950), stressing the difference between divergent and convergent thinking, where divergent thinking is directly connected with creativity. Gilford (according to Torrance, 1979) said that flexibility, fluency, originality and elaborativeness were the most important factors of creating thinking. Although research done in the meantime offered diverse results and insights, it is still believed that the phenomenon of creativity has not been researched enough (Đorđević, 2005; Maksić, 1998, 2006).

In modern psychology creativity is usually connected to the right hemisphere of the brain, which is in charge of emotions, intuition, imagination and synthesis (Slunjski, 2014). According to Amabil (1989, 1992), creative people do not have an inclination towards prejudice, but are inclined to take risks and consistently follow their ideas until they finish what they started.

On the basis of research conducted in primary schools in Serbia, Maksić and Pavlović (2014) list the following characteristics of creative people: curiosity, imagination, originality, individuality, expressiveness, resourcefulness and experience; in addition, talented students who have maladjusted behaviour are often creative children (Maksić, 2010).

According to Maksić (2006), the application of certain methods, the support of children's interests, talents and abilities, as well as the respect for individual characteristics of each child and the activation of analytic and synthetic thinking can lead to increased creativity in school conditions.

Artistic creativity can develop through games, research, by awakening imagination and curiosity (Karlavaris and Kraguljac, 1981), by observing great artistic work, through audio and tactile stimulation (Stojanović Stošić, 2016), by strengthening the child's self-confidence and by eliminating their fear of failure. In addition, by developing artistic creativity creative thinking in general is developed as well (Karlavaris and Kragujac, 1981).

The educational role of arts education is reflected in the fact that contact with art activates children's positive attitudes, it strengthens their motivation, inspires their curiosity and initiates new ideas, all of which contributes to the formation of a versatile personality. The other important function of arts education is preparation for practical work. As Ilić (2020) believes, arts education is different from other subjects in the character of its content, in creative processes, but also in the relationship between students and the teacher and the way results are assessed.

Karlavaris (1987) lists five phases when it comes to the processes in arts education while relying on creative processes:

- Process of learning
- Process of playing
- Process of creation
- Process of work
- Process of assessment (verification).

According to Filipović (2011) artistic areas and media are: drawing, painting, graphic art, sculpting, elements of applied arts, multimedia and foundations of aesthetic assessment. The term 'art techniques' implies the materials that are used and ways of using these materials (Jakubin, 1989).

Other art techniques used in primary school are: drawing, painting, sculpting, graphic art and applied art. However, arts education also provides numerous opportunities for using NAM. Creative games with NAM in arts education help the development of artistic

thinking by allowing pupils to explore the potential of materials, to seek original solutions, to enjoy their own artistic creation without fear of failure, because the game in its own nature does not leave room for failure.

2. CURRENT STUDY

According to Bruner (1976), game is an activity that fulfils children's time when they are not involved in their existential needs. Game is a natural state for children and greatly affects their development in a positive sense but it also influences their innovative and creative behaviour.

Game in arts education is characterized by freedom and playfulness, curiosity and readiness to acquire new artistic visual experiences.

Šefer (2005) says that creative games include:

- Constructive games (creative manipulation of material)
- Multimedia games (games from different media with a similar content)
- Syncretic games (type of multimedia games)
- Imaginative games (dramatic, empathic and metaphorical games)
- Stylistic or paradigmatic games (creative individual approach to the interpretation of some styles in art, culture or periods).

Arts education in primary school offers numerous possibilities for using games in the realization of arts activities.

Our research intends to investigate teachers' attitudes and beliefs concerning the use and significance of NAM in arts education in the first, second, third and fourth grades of primary school, as well as to establish if working with NAM can motivate creative thinking among children, which further results in a versatile creative personality.

NAM can include: different grains, tin foil, newspapers, textile, refuse, bottle caps, different types of plastic and cardboard packaging, fruits of nature, styrofoam, buttons, pasta, unused CD's, sponges and many other materials.

The category of unshaped material comprises: paper, textile, wire, wool, string, styrofoam, foil, etc. Natural shapes and materials include: rocks and pebbles, shells, fruit, leaves, seeds, both dried and fresh petals of various plants, flowers, etc. While working with these materials children encounter different colours, textures, even smells thus enriching their sensory, motoric, emotional and psychological experiences: "when a child makes new forms from fruit and other natural materials, he/she learns about the functional organization of nature and its beauty. At the same time he/she shapes aesthetic feelings and is ennobled by the beauty of natural colours and shapes" (Filipović, 2011, p. 291).

Speaking about NAM that include semi-shaped and refuse, as well as natural and unshaped materials, in creative games in arts education it is possible to use different plastic and cardboard packaging, bottle caps, buttons, styrofoam, textile, newspapers and magazines, screws, etc. During these activities children learn that refuse materials can be used again for various purposes, they learn about the importance of recycling, they gain practical life experience and develop creativity. However, we should note that it is important to take into consideration the compatibility of materials that are combined in the sense of their technological and aesthetic features, so that the result is a harmonious aesthetic whole.

The diversity of characteristics of NAM can inspire children to make new and unusual solutions that are creative and original.

3. METHOD

The sample in this research includes 56 teachers from the territory of the town of Vranje. The survey was conducted in all six schools in the area: Vuk Stefanović Karadžić, Dositej Obradović, Jovan Jovanović Zmaj, Branko Radičević, Radoje Domanović and Svetozar Marković.

The methods applied in this research have been chosen in accordance with the nature of the problem, the research topic, research aim and research tasks, as well as in accordance with the stipulated hypotheses. Content analysis was used to analyze the answers from the surveys and in the theoretical part of the paper, while in the process of collecting, processing and interpreting the data we used the descriptive scientific method.

In order to investigate teachers' attitudes and beliefs regarding the importance of work with NAM in arts education the survey technique was used. The instrument used for data collection was designed by the author of the paper for the needs and purposes of this research and was administered anonymously to the informants.

The research was conducted in the second semester of the academic 2020/2021 in primary schools in the territory of the town of Vranje. There were no greater problems or difficulties in the organization and implementation of this research. The research and data collection were conducted by the authors of this paper. Informants showed a large degree of understanding for this research.

In terms of descriptive statistics, frequencies and percentages were used in this paper. Research results result which were the outcome of the analysis of collected data were presented in tables.

4. RESULTS AND DISCUSSION

In the process of analyzing the collected data similar statements that reflected the same concept were repeated quite often so in order to have a better insight into answers, the answers were grouped into categories. In addition, it was noted how many times in the survey each answer was repeated and all answers were organized in the same order as the questions in the instrument itself.

a) Which NAM is used by teachers in arts education?

In terms of NAM that teachers use in working with children during arts education classes, it is possible to list a large number of different materials, so the answers below show a vast range of materials, some being used very frequently, while others not so frequently.

Table 1 presents all the answers that teachers gave to the question above. Column (*f*) lists how many teachers gave the answer in question and in the next column there is percentage for each of the answers. Of all informants eleven listed general answers without listing specific NAM:

- 5 informants (8.9%) stipulated they used *All materials that can be found in nature*
- 6 informants (10.7%) stipulated they used *Materials that can be recycled.*

Table 1 Diversity of NAM in arts education

Response	f	(%)
Leaves	23	41.1
Seeds and grains	38	67.9
Fabric	24	42.8
Pebbles	16	28.6
Dried flowers	18	32.1
Different types of pasta	36	64.3
Sea shells	12	21.4
Cotton	4	7.1
Plastic packaging	47	83.9
Glass packaging	7	12.5
Wooden sticks	13	23.2
Matches	8	14.3
Soap	3	5.3
Buttons	33	58.9
Popcorn	23	41.1
Wool	19	33.9
Fruit	42	75.0
Vegetables	38	67.9
Sand	3	5.3
Styrofoam	9	16.1
Straws	15	26.8
Q-tips	7	12.5
Old newspapers	40	71.4
Old CD's	25	44.6
Paper bags	33	58.9
Plastic bags	34	60.7
Plastic cups	31	55.3
Caps from different packaging	37	66.1
Tins	12	21.4
Balloons	23	41.1
Parts of toys	7	12.5
Wax	5	8.9
Toilet paper and cardboard rolls	16	28.6
All materials that can be found in nature	5	8.9
Materials that can be recycled	6	10.7

All other individually listed NAM are presented in Table 2 according to the degree of frequency:

- Rarely (listed by 0-33% of informants)
- Typically (34-66% of informants)
- Frequently used NAM (67-100% of informants)

It is clear that the most frequently used materials that teachers listed were also the ones that were easiest to work with in the sense of easy handling and shaping, which also reduced the chances of children not being able to do the task to a minimum. What is especially interesting, despite being present to a lesser extent, is the use of soap and wax, which can also be described as sculpting materials in arts education.

Table 2 NAM in arts education classes according to the degree of frequency (from lower to higher)

NAM	Degree of frequency
▪ Soap ▪ Sand ▪ Cotton ▪ Wax ▪ Parts of toys ▪ Glass packaging ▪ Q-tips ▪ Matches ▪ Styrofoam ▪ Sea shells ▪ Tins ▪ Straws ▪ Toilet paper and cardboard rolls ▪ Pebbles ▪ Dried flowers	Rarely used
▪ Wool ▪ Fruit ▪ Balloons ▪ Popcorn ▪ Leaves ▪ Fabric ▪ Old CD's ▪ Plastic cups ▪ Buttons ▪ Paper bags ▪ Plastic bags ▪ Pasta	Typically used
▪ Caps from different packaging ▪ Seeds and grains ▪ Old newspapers ▪ Plastic packaging	Frequently used

Since all informants gave answers and listed 37 different NAM, we can conclude that the hypothesis that *teachers use many NAM in arts education* was confirmed.

b) What does the use of NAM develop in arts education classes?

All informants agree that working with NAM contributes to the development of creativity: 55 of them (98.2%) believe that it contributes to developing imagination and 52 teachers (92.8%) say that it contributes to the development of fine motor skills (Table 3). These are the answers of the majority of informants. Furthermore, secondary importance is ascribed to the more cheerful atmosphere in the classroom (41 informants, 73.2%), which simultaneously implies greater interest in arts education (15 informants, 26.8%). Only one informant listed *student's satisfaction in work* as the answer to this question, which is from a psychological point of view just as important as developing creativity, imagination and motor skills.

Table 3 Importance of application of NAM in arts education classes

Response	f	(%)
Development of creativity	56	100
Development of imagination	55	98.2
Development of fine motor skills	52	92.8
More cheerful atmosphere in the classroom	41	73.2
Acquisition of visual and artistic values	37	66.1
Development of creative abilities	30	53.6
Freedom of artistic expression	29	51.2
Strengthening the team spirit	20	35.1
Learning about the characteristics of material	17	30.3
Developing sense for unusual and original	15	26.8
Greater interest in classes	15	26.8
Development of practicality	13	23.2
Development of logical thinking	10	17.8
Better concentration	9	16.1
Development of sense for frugality and economy	4	7.14
Pupils' satisfaction in work	1	1.8

In accordance with the results, we believe that the hypothesis that *working with NAM in arts education contributes to greater motivation, development of creativity and better classroom atmosphere* has been confirmed.

c) How do children react and how often do they use NAM in arts education?

Table 4 Children's reactions to working with NAM and frequency of use

Response	f	(%)
Children love it and are very active.	37	66.1
Children have wonderful reactions.	24	42.8
They are always happy when I announce working with NAM.	21	37.5
Pupils are interested because they have fun while working with NAM.	19	33.9
Pupils are happy and excited.	12	21.4
They are happy and inspired because they can experiment.	9	16.1
Pupils are free and creative.	7	12.5
Children have positive reactions because the material inspires their creativity.	4	7.1
Pupils are impatient to have a class when we work with NAM.	4	7.1
Children are additionally motivated by the characteristics of materials.	2	3.6
Children like working with these materials.	39	69.6
They happily accept these materials.	27	48.2
They love using NAM.	11	19.6
They gladly accept different materials and ideas for working with them.	5	8.9
They are sometimes fearful in working with NAM.	1	1.8

In Table 4 we can see that the majority of teachers (37 of them, 66.1%) think that children love working with NAM and are very active in that process, that they have great reactions (24 informants, 42.8%), that they are happy and inspired because they can experiment (9 informants, 16.1%). Two informants said that *the qualities of materials themselves motivate children additionally* and one informant said that *children are fearful in working with NAM* because they are afraid of failure, which can be interpreted as a

consequence of the teacher's failure to comply the chosen materials with the children' age or the unit they are teaching.

d) At which age is it possible (and necessary) to introduce NAM in arts education and what are the reasons behind that?

Table 5 Children's age and use of NAM in arts education

Response	f	(%)
Since the first grade	49	87.5
Since the second grade	4	7.1
Since the third grade	3	5.3

In Table 5 we can see that 49 informants (87.5%) said that it is possible and necessary to introduce NAM since the first grade of primary school, that 4 informants (7.1%) think that it is advisable to introduce NAM in the second grade, while 3 informants (5.3%) think that NAM should be introduced in the third grade.

Table 6 Grade and NAM

Response	f	(%)
Since the first grade		
Inspire the development of creativity and imagination.	35	62.5
Children acquire new experiences.	18	32.1
They develop fine motor skills.	12	21.4
They develop voluntary activities.	9	16.1
Working with NAM greatly resembles a game.	7	12.5
Children develop brain functions by touching and feeling the material.	5	8.9
They are learning how to express themselves in an original way.	2	3.6
They develop awareness on how they should think in a creative and original way.	1	1.8
Since the second grade		
They are more independent in work.	2	3.6
Every innovation is interesting for them.	1	1.8
They are learning how to use materials beyond their primary use.	1	1.8
Since the third grade		
They have learnt how to work with all necessary "tools" without hurting themselves.	3	5.3

Table 6 lists all the answers that teachers gave as reasons for using NAM in arts education. They are grouped according to the grade when they should be introduced. The majority of informants who said that NAM should be introduced in the first grade think that the main reasons for that are: motivation of creativity and imagination, acquiring new experiences and developing fine motor skills. As reasons to introduce NAM in the second grade the informants listed: children's independence, interest in classroom innovation and a need to find a new purpose for the object or material that differs from the primary one. Three informants said that NAM should be introduced in the third grade with an explanation that it is for the children's safety, i.e. that at that age they are able and ready to handle all necessary additional materials to work with NAM in an adequate way.

In accordance with these results we can conclude that the hypothesis that *according to teachers NAM should be introduced to arts education in the first grade* has been confirmed.

e) Which units are taught through the use of NAM?

Since all teachers work according to the same Curriculum, there were answers that were repeated a few times, so in Table 7 they are given by frequency.

Table 7 Units taught with the use of NAM

Response	f	(%)
Here comes the New Year	28	50
We are celebrating Easter	23	41.1
Spring. Summer. Autumn. Winter	20	35.7
My unusual journey	19	33.9
My seal	16	28.5
My initials	14	25
We are making a Snowman	13	23.2
We are making greeting cards (for New Year, Easter, Mother's Day, birthdays...)	12	21.4
We are making a robot	12	21.4
My imagination has no limits	11	19.6
Turn something old into new	10	17.8
Cardboard house	8	14.3
Young creators	8	14.3
Wondrous world	7	12.5
I'm making my own doll	6	10.7
Unusual objects	6	10.7
Heroes from our favourite books	5	8.9
Making theatre masks and costumes	4	7.1
A journey to space	4	7.1
Collage from natural materials	4	7.1
A chain from natural materials	3	5.3
My favourite animal	3	5.3
We are making masks	2	3.6
A rock souvenir	1	1.8
A photo as a gift for mom	1	1.8
A photo frame	1	1.8
I am connecting different materials	1	1.8
A birthday gift	1	1.8
There are many units. the curriculum is great for working in this manner	1	1.8

Table 7 presents all units taught with the use of NAM. Only one informant gave a general answer, that *there are many units and that the curriculum is great for working in this manner*. Other informants listed four or more units on average. It is noticeable that the most frequently mentioned units are those that relate to various holidays (New Year, Easter) and seasons of the year, but there are other interesting answers also. Since the total number of units listed in informants' answers was 243, we classified them into 28 groups. Since there are 36 classes in the first grade and 72 in the second, third and fourth grades, we can conclude that the hypothesis that *the majority of units can be taught with the use of NAM* has been confirmed.

f) What are the disadvantages of NAM?

In Table 8 we can see that 30 informants (53.6%) list lack of time and the duration of class as the greatest disadvantages when working with NAM. This is followed by the lack of space or its poor organization (26.8%). Only two teachers stated that there are no disadvantages in working with NAM. One informant said that *the greatest disadvantage in working with NAM is that it is not adjusted to children's age*. In accordance with the results presented here, the hypothesis that *the most frequent disadvantage in working with NAM is time limitation of a class* has been confirmed.

Table 8 Disadvantages of working with NAM in arts education classes

Response	f	(%)
Time limitation/duration of class	30	53.6
Lack of space or poor organization of space	15	26.8
Not all children bring the required material/providing the required material	10	17.9
Financial situation of children, their parents, the school	7	12.5
Teachers' lack of experience	5	8.9
Teachers' prejudice	4	7.1
Pupils' insufficient motivation	4	7.1
Children's underdeveloped motor skills	3	5.3
Children are not careful and can hurt themselves	2	3.6
No disadvantages	2	3.6
NAM not adjusted to children's age	1	1.8

g) Do teachers think that these classes require a more extensive and more complex preparation?

In Table 9 we can see that 45 informants agreed that a more complex and extensive preparation is necessary to organize a class with NAM. Seven informants (12.5%) said that preparation is not necessary. Only one informant believes that *t*he *teacher's will and persistence are all that is needed*. In accordance with these results, the hypothesis that *the organization of these classes requires a more complex and extensive preparation* has been confirmed.

Table 9 More complex preparation for teaching classes that imply the usage of NAM

Response	f	(%)
Yes	45	80.3
No	7	12.5
I think that the teacher's will and persistence are all that is needed.	1	1.8
It all depends on the pupils. If they are creative, it is easy to motivate them. Those who are less creative always become engaged in group work and are very active and curious during the entire class.	1	1.8
A more complex preparation is necessary for a well-organized class.	1	1.8
Teachers do not need a special preparation, but more active class participation is necessary.	1	1.8

h) Do creative games in arts education contribute to seeing other subjects in a more creative way?

Since 98.2% of informants gave a positive answer to this question, the hypothesis that *creative games in arts education contribute to seeing other subjects in a more creative way* has been confirmed. Only one informant believes that creative expression in arts education does not have a particular effect on the more creative approach to teaching other subjects.

Table 10 Creative games in arts education and their contribution to seeing other subjects in a more creative way

Response	f	(%)
Yes	55	98.2
Not necessarily	1	1.8

5. CONCLUSION

All children possess creative potential that must be activated and then inspired and developed. The society can make progress only with creative people, so we can conclude that the future of humanity is uncertain without creative children (Cvetković-Laj and Pečjak, 2004).

On the basis of the analysis of research results we can conclude the following:

a) in addition to standard material, in arts education classes it is desirable to use NAM, which have various features, textures, shapes, sizes and offer a plethora of possibilities for work and design;
b) the use of NAM in arts education classes can inspire creativity, imagination and it can influence the development of fine motor skills; it inspires team spirit, the atmosphere in the classroom is more cheerful and pupils' interest in arts education is greater; classes organized in this manner contribute to the development of economicity, practicality as well as logical thinking; pupils gain confidence and express satisfaction while working with them;
c) teachers are aware of the fact that working with NAM motivates children's imagination and creativity and they think that freedom and lack of restraints in working with NAM are important factors that contribute to the development of creative potentials of children; while working with NAM children are motivated by the materials themselves, which makes them want to experiment and innovate; by developing creative thinking children also develop higher mental structures and processes, as well as critical thinking;
d) children's reaction to working with NAM is a combination of thrill, joy, interest, fun, experimenting, inspiration and pleasure, which are some of the reasons why teachers choose to work with NAM in arts education classes;
e) most teachers are aware of the importance of developing pupils' creative potentials, and since working with NAM is one of the ways to do it, teachers believe it is possible and desirable to use these materials since the first grade of primary school;
f) the current curriculum allows for a large number of units in the first, second, third and fourth grades of primary school to be taught with NAM; teachers prioritize units related to New Year and Easter holidays;

g) in teachers' opinion the greatest disadvantage in working with NAM is the time limitation of a class, poor spatial organization, material supply, pupils' bad financial situation, children's lack of interest and teachers' inexperience and prejudice;
h) according to teachers, working with NAM contributes to inspiring and developing artistic creativity, but it also contributes to a more creative approach to teaching other subjects.

A general conclusion is that it is very important for teachers to use NAM in arts education classes, because working with these materials greatly contributes to the development of children. A vast range of NAM can also facilitate the teaching process, because it is simple to find NAM that are compatible with the children's age and preferences as well as the unit being taught. In addition, the diversity of material and their qualities can inspire children to come up with unusual and original solutions. While designing creative games, teachers need to be ingenious, dedicated to choosing the adequate materials, they need to know the technological characteristics of materials used in classes and to plan each class so that it is dynamic and inspiring for children. Another benefit of creative games as group activities that include NAM is that children communicate amongst themselves and exchange ideas, so motivation is increased even among less interested pupils.

All in all, in arts education classes there are many ways to inspire and develop the creativity both among children and among teachers. Working with NAM is only one of them.

REFERENCES

Amabile, T. (1989). *Growing up creative*. Amherst: The Creative Education Foundation.

Amabile, T. (1992). *Growing up creative: nurturing a lifetime of creativity*. Buffalo: Creative Education Foundation Press.

Brunner, J.S. (1976). Nature and uses of immaturity. In J.S. Bruner, A. Jolly, & K. Sylva (Eds.). *Play – its role in development and evolution* (pp. 28-64). London: Harell, Watson & Viney.

Guilford, J. P. (1950). Creativity. *American Psychologist*, 5(9), 444-454.

Đorđević, B. (2005). *Darovitost i kreativnost dece i mladih*. Vršac: Viša škola za obrazovanje vaspitača.

Ilić, V. (2010). Individualizacija u nastavi likovne kulture primenom učewa na osnovu slobodnog izbora. *Obrazovna tehnologija, 1*, 25-41.

Jakubin, M. (1989). *Osnove likovnog jezika i likovne tehnike*. Zagreb: Institut za pedagogijska istraživanja Filozofskog fakulteta Sveučilišta u Zagrebu.

Karlavaris, B. (1987). *Metodika nastave likovnog vaspitanja* (2. izd.). Beograd: Zavod za udžbenike i nastavna sredstva.

Karlavaris, B., Kraguljac, M. (1981). *Razvijanje krativnosti putem likovnog vaspitanja u osnovnoj školi.* Beograd: Institut za pedagoška istraživanja, Prosveta.

Maksić, S. (1998). *Darovito dete u školi*. Beograd: Institut za pedagoška istraživanja.

Maksić, S. (2006). *Podsticanje kreativnosti u školi*. Beograd: Institut za pedagoška istraživanja.

Maksić, S. (2010). Student creativity and behavioural problems. In Železnikov Seničar, M. (Ed.), *Social and Emotional Needs of Gifted and Talented, II International Scientific Conference* (pp. 80-89). Ljubljana (Slovenija): MIB.

Maksić, S., Pavlović, J. (2014). Implicitne teorije kreativnosti nastavnika osnovne škole: studija slučaja. *Psihologija, 47*(4), 465-483.

Slunjski, E. (2014). *Kako djetetu pomoći da (p)ostane kreativno i da se izražava jezikom umjetnosti: priručnik za roditelje, odgajatelje i učitelje*. Zagreb: Element.

Stojanović Stošić, M. (2016). *Razvijanje kreativnih sposobnosti dece kroz nastavu likovne kulture primenom taktilnih, vizuelnih i auditivnih podsticaja* [Doktorska disertacija]. Vranje: Pedagoški fakultet u Vranju.

Torrance, E. P. (1979). *The Search for Satori and Creativity*. New York: Creative Education Foundation.

Filipović, S. (2011). *Metodika likovnog obrazovanja i vaspitanja*. Beograd: Univerzitet umetnosti u Beogradu, Klett.

Cvetković-Laj, J., Pečjak, V. (2004). *Možeš i drukčije – priručnik s vježbama za poticanje kreativnog mišljenja.* Zagreb: Alineja.

Šefer, J. (2005). *Kreativne aktivnosti u tematskoj nastavi.* Beograd: Institut za pedagoška istraživanja.

KREATIVNE IGRE RAZLIČITIM MATERIJALIMA U NASTAVI LIKOVNE KULTURE

U radu se razmatraju stavovi i mišljenja učitelja razredne nastave o upotrebi različitih materijala koji se mogu koristiti za likovno oblikovanje u nastavi likovne kulture, nazvanih nestandardni likovni materijali (NLM). Manipulisanjem i eksperimentisanjem ovim materijalima deca učestvuju u kreativnim igrama koje pobuđuju znatiželju, iniciraju pojavu novih, originalnih ideja i jačaju timski duh. Istraživanje je sprovedeno na uzorku od 56 učitelja osnovnih škola na teritoriji grada Vranja. Instrument koji je korišćen za anketiranje konstruisan je za potrebe ovog istraživanja. Rezultati istraživanje upućuju na značaj i važnost upotrebe NLM u nastavi likovne kulture – njihovom primenom u realizaciji velikog broja nastavnih jedinica već od prvog razreda razvija se stvaralačko i kritičko mišljenje kod učenika, što dalje doprinosi kreativnijem pristupu nastavi ostalih predmeta.

Ključne reči: *kreativnost, kreativne igre, nastava likovne kulture, NLM*