

**Innovative approaches to encouraging giftedness in children from three
to six years**

– A guide for experts in education and parents –

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Introduction

The guide titled „Innovative approaches in encouraging giftedness in children from three to six years: a guide for experts in education and parents”, as the title suggests, is dedicated mainly to practitioners (kindergarten teachers, professional associates and other employees in preschool practice), parents/guardians as well as higher education professors who educate future kindergarten teachers. Additionally, the guide can be inspirational for ones not directly involved in the preschool practice, but interested in gaining new and expanding their existing knowledge, by studying specific characteristics of giftedness in preschool children. The title and structure are in line with the project within which the guide is created: „Innovative approaches to encourage giftedness in children” („GIFTED – Generating Inclusive and Fair Teaching in Early Development”), within the TEMPUS Foundation Erasmus+ program of the European Union. The implementation of the project started in 2020 and the project partners are: Association of Preschool Teachers of Vojvodina (Serbia), Pedagogical Faculty of University in Maribor (Slovenia) and Association „Klikeraj” in Osijek (Croatia).

Several authors, gathered around the same idea, contributed to the development of the guide, intending to provide some of the answers to the old but always popular question: HOW to recognize and then work with a gifted child? In this regard, the formed team of professors and practitioners was guided by the goal of providing readers with a synergy of theoretical concepts and practical implications, i.e. to present inventive, diverse and modern approaches to encouraging potential giftedness of preschool children through various examples. It is the amalgamation of theoretical and practical aspects, revived in the variety of examples, that makes this guide different and useful in providing support and encouraging giftedness and creativity in preschool children.

The thread connecting the structural parts of the guide includes:

- Improvement of the competencies of kindergarten teachers for recognizing and encouraging potential giftedness and creativity in preschool children, as part of the cluster of competencies for professional development of kindergarten teachers (immediate work with children, development of cooperation between community and learning, development of professional practice);
- Strengthening the cooperation between kindergarten teachers and parents and expanding the network of participants who work with potentially gifted children.

The structure of the handbook is divided into six thematic units (chapters), so each subsequent part is meaningfully connected to the previous one. In the first part, we looked at the general approach and multifaceted interpretations of the phenomenon of giftedness and creativity, the basis of the second part is the interpretation of intertwining, i.e. the network of play and learning, as unbreakable links in encouraging potential giftedness and creativity, where an inspiring place (stimulating environment and relationships built in kindergarten) plays an exceptional role; in the third part we emphasised the importance and the role of professional development of kindergarten teachers to work with the gifted, as a strategy and one of the key competencies for lifelong learning; the fourth chapter presents numerous practical examples for encouraging potential giftedness and creativity through an integrated approach, reflecting real life



context; the fifth part of the guide provides insights into the created innovative instrument for recognizing potential giftedness in children aged 3 to 6, and was created as one of the products of the GIFTED project; the sixth, and last chapter, offers insights into the interpretations of the results of the research conducted at the very beginning of the GIFTED project, which also provided the initial impulses for the implementation of the project tasks and provided guidelines for the continuation of the project. Concluding remarks and guidelines for further empowerment of kindergarten teachers and adults involved in identifying potentially gifted children and providing them with adequate support, make this guide open to future experiences, research and shared creation of the context in which the gifted grow.

At the end of this prolegomenon, we express hope that the guide will be a valuable inspiration to well-known practitioners, future kindergarten teachers, parents, professors and all those who can and want to contribute to enlightening and encouraging the potential giftedness and creativity of preschool children. In this regard, we believe that the guide will open many other questions and send impulses for further reflection in order to improve preschool practice and affirm the complex field of work with gifted children.

Special thanks to the reviewers, whose selfless work and valuable suggestions, through a combination of theoretical and practical aspects, were indispensable in finalizing this guide. Their suggestions and opening of new topics and questions encouraged us for further research on the thorny and untrodden path through the study of giftedness.

Authors



1 The giftedness in the preschool period

Maja Hmelak

Pedagogical Aspects of Giftedness in a Preschool Child

Before all, it is, of course, necessary to define a gifted child at preschool age or what is implied by giftedness. As it was pointed out by George (1997), there are many notions, e.g. gifted, talented, able, exceptional and excellent. Therefore, each kindergarten teacher should in a way create one's own definition, but this is not easy. Each definition is by its nature professional, while each child has his/her own story. Consequently, Renzulli (1978) has long ago defined giftedness in the first place as an interaction between above-average agility, creativity and task commitment or motivation. However, in 2011 the author published the same paper which he had in the period after the first version was published changed and complemented with some new insights. Even more importantly, Renzulli (2011) identified three factors crucial for the development of gifted behaviour in a child: above average abilities, creativity and task commitment. Creativity implies fluidity, flexibility, originality of thoughts, openness to new ideas and experiences, sensitivity to stimuli and willingness to take risks. Jurišević (2012) points out that talent is a complex, developmentally dynamic and contextually conditioned phenomenon, a result of the interaction between biological, psychological, pedagogical and psychosocial factors and in its broadest sense implies exceptional human potentials or achievements.

Talent at preschool age was talked and written about more than twenty years ago, but special attention to potentially gifted preschool children still has been insufficiently discussed. As a consequence, care and responsibility for planning, implementation and evaluation of the work with the talented have been left to kindergarten teachers themselves (Stritih, 2012). They can identify potentially talented children while having more problems in work with such a child. The truth is, however, that kindergarten teachers have already acknowledged the advantages of early identification and intervention in the case of preschool children who manifest exceptionally high potential or ability (Pfeiffer & Petscher, 2008). The so-called multilateral approach to identification of gifted and talented is important for identification of gifted children at early age. Intelligence tests themselves are not sufficient, having in mind that it is necessary to simultaneously monitor the upbringing process, so that checklists can be used to show the opinion of adults who can provide useful information, especially on the child's early development (Cvetković-Lay, 2002a; Glogovec Žagar, 1990).

When talking about talent in preschool environment, we have in mind a competent child who needs an encouraging setting for development, where he or she can express the need for active participation. At the same time, the use of different teaching methodology is necessary, as well as a different role of the relevant adult, who should be, before all, a reflexive practitioner. Recognition of numerous cognitive and social abilities of a child is a required precondition for the confirmation of a child's participation in the process of making decisions regarding his/her life. Only when we see a child as a competent being rich in potentials, the one who can establish social interactions with others, agree about many things, who can take responsibility for his/her actions, whose voice is worth attention and listening, supportive environment should be prepared where, apart from the right to protection and care, a child can exercise his/her right to



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participate and to have an opportunity to “articulate him/herself in his/her own expression today, rather than in the unspecified future” (Rutar, 2012).

These participatory pedagogical models are based on the research on children's perspective and children's voice (Clark & Moss, 2001; Clark, 2010), acknowledging the child as an interlocutor and a co-researcher of his/her own life. What has been pointed out is the significance of seeing a child as a capable individual and the importance of establishing various, respectful relations with others and the environment, as well as listening to a child. The central concept within these models is child's participation, while the authors (Lepičnik Vodopivec and Hmelak, 2019; Hart, 1992; Lansdown, 2010) differentiate between different levels of involvement of a child in the educational process when a child is given a direct opportunity to play an active role in the processes of decision making in educational activities and the very interactions in education.

The awareness that the image of a child is a social construct (Dahlberg, Moss, Pence, 2005), along with the influence of sociocultural theories and the reflection on pedagogical documentation including child's products, records describing situations, activity photographs, etc, have significantly altered the view on the abilities of children and their learning abilities (see more in: MacNaughton, 2009), leading to a different view on the role of a kindergarten teacher. It is a kindergarten teacher as a reflexive practitioner (MacNaughton 2009; Lepičnik Vodopivec & Hmelak, 2018), who through the lenses of his/her own work and the work of children reflects on pedagogical process and asks him/herself and others about the intentions (what do I want to achieve in my work), ways (how do children form their meanings and theories; how to plan, how to prepare an encouraging environment while applying the concepts and principles I strive for, how to proceed in my work) and needs (what do children need, what makes them excited, what surprises them, what do I, as a kindergarten teacher need). It is important to get into a pedagogical process, rather than to explain or even “moralize” and a kindergarten teacher should provide children with the opportunity to express their experiences, ideas, thoughts, attitudes in various ways, inciting them to explain thus creating space for learning from others and diminishing fears and stereotypes associated with “different” children.

This aspect of systematic reflection is necessary for both the child and the kindergarten teacher, having in mind that many studies have confirmed that exploration and reflection of common work are crucial both for personal development of children and professional development of kindergarten teachers (Jug Došler, 2013; Lepičnik Vodopivec & Hmelak, 2018) and that the performances are influenced by “deeper” layers of personality more than by competencies. Such ways of continuous professional development are supported by the concept of formative monitoring, aiming at “providing the most appropriate support to development and learning of children at a given moment, promoting development of their learning skills and metacognitive abilities” (William, 2013; Hattie, 2012). Therefore, it is crucial to provide children with the conditions to fully develop their potential talent. At the same time, Glogovec and Žagar (1990) have emphasized what is even nowadays a state of the art and it refers to the standpoint that each kindergarten and each kindergarten teacher has exceptional possibilities for creative upbringing and promotion of children's creativity. These possibilities are offered by the very children through their unusual abilities for creative ways of learning.

Both cooperation and dialogue between a kindergarten teacher and a child are crucial for successful pedagogical work in kindergarten. They do not start merely with coming to a kindergarten group and immediate communication with children, but when a kindergarten teacher prepares the setting and space for children's play, daily routine and guided learning activities (Lepičnik & Vodopivec & Hmelak, 2020). The concept of space thus overcomes mere thinking about suitable equipment, materials and design. This is a concept which refers to our



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image of a child, our understanding of the support for children's learning, our use of pedagogical documentation and our way of thinking about organization of time and relations between all the members of the learning community. **The organization of space as a stimulating learning environment** should therefore follow certain important principles, like e.g.:

- providing support to children's learning (bearing in mind child's abilities, setting challenges, encouraging curiosity),
- organizing healthy, safe and aesthetic space (both close and open),
- enabling different social contacts,
- ensuring privacy and intimacy,
- supporting inclusion,
- providing flexibility of space (the setting should be changing in accordance with the age of children and currently ongoing activities),
- ensuring participation (children should participate in space design),
- cooperating with local community.

If we succeed in provision of encouraging environment in kindergarten and organization of high-quality activities, we will provide gifted children with the opportunity to develop their potentials to the maximum level. Consequently, organization of environment should beyond dispute follow the strategies which, according to certain authors (Lepičnik Vodopivec & Hmelak, 2020; Cvetković-Lay & Sekulić Majurec, 1998; Glogovec & Žagar, 1990) have turned out to be efficient in dealing with gifted children at preschool age: project work, small group work or individual work, a child as an active co-creator of the contents and the process of upbringing-educational work, networking with social environment through additional activities, broader spectrum of materials and educational resources.

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Keywords index:

Active participation – active participation and cooperation. A child actively participates in decision making and selection of different factors related to his/her development.

Formative monitoring – defined as a pedagogical dialogue for common assessment and monitoring of a kindergarten teacher and a child, control and guidance aiming at more suitable and higher quality of an individual's development. It is a process leading to improvement of learning.

Reflexive practitioner – The term is used by Schon (1983) to describe the work of teachers who reflect on their behaviour, analyse it, act thoughtfully, not making decisions hastily. A kindergarten teacher, as a reflexive practitioner, makes links between his/her own practical work and theoretical knowledge, relates theoretical knowledge to practice, analyses one's own work from the standpoint of theory and the viewpoint of one's own experience and construes one's own model of professional engagement.



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Lada Marinković, Josipa Mamužić

Psychological aspects of giftedness in a preschool child

Gifted individuals have long been seen as those who have better, unusual solutions to problems, ideas that have never been seen before, those who are extremely successful in their fields, those who bring progressive ideas. Although their ideas and inventions were not always socially acceptable, in the near or distant future they proved to be the driving force for the development and progression of civilization, society or certain areas of human activity. They became the subject of scientific research interest in 1921, when psychologist Terman devised a way to monitor a group of children (about 2,000 of them) with highly above-average intellectual abilities. From the initial sample of children, data on the life and development of about two hundred more "Termites" are still being collected. Many myths about the gifted have been shattered. From layman beliefs, initial scientific assumptions about the characteristics of the gifted and the ability to predict which child will be productively (fulfilled) gifted, the most common confirmation refers to the fact that neither inheritance nor closely related high IQ plays a crucial role in understanding someone's giftedness. It is rather that the contribution and role of the stimulating environment can decisively influence the development of one's potential, to create a product that will be creative, innovative and important for the development of the community, society and beyond.

Current theories of giftedness distinguish between the giftedness of children and adults. „A high score on a test is an adequate measure of giftedness in childhood, but with growing up the criterion of giftedness shifts from potential to achievement.” (Subotnik, Arnold & Noble, 1995, according to Altaras-Dimitrijević, 2006: 34). The consideration of the possibility to recognize the early signs of giftedness has led to the definition of the term potential giftedness and the term productive or manifested (fulfilled) giftedness. To recognize the giftedness characteristics of children before starting school (up to seven years), we use the term *potential giftedness*, where we mean the possibility of noticing highly developed development potentials in all children, to provide adequate environmental support for their maximum development. The productive (fulfilled) giftedness is more difficult to identify at this age, given the still insufficient development of the child's overall potential. However, regardless of these terminological determinants, psychological research indicates some prominent indicators of potentially gifted children concerning their cognitive, motivational, socio-emotional, and behavioural characteristics, as well as environmental and socialization factors. We will try to list the most important characteristics of giftedness, the difficulties in defining the giftedness itself and especially in regard to the age we are dealing with, having in mind the heterogeneity of the population of the gifted.

Cognitive characteristics

Cognitive processes in the narrowest sense include thinking, attention and memory. Given that one of the components of the model of understanding giftedness according to the leading author Renzulli, high intellectual ability or high ability in the field in which the child shows interest and motivation, along with the characteristic personality trait of being strongly and persistently focused on a task and others, we can point out that the level of intellectual abilities in a potentially gifted child is higher than average. This feature is expressed in faster acquisition and mastering the knowledge and skills that require more complex processes of thinking, concluding and solving problem situations, development of indicators of intellectual



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abilities for at least a year or two ahead of peers. Winner (2005) states three characteristics common to all gifted children: they take the first steps in mastering an area much earlier than usual and progress in that area significantly faster than other children, thanks to their ability to learn easily.

With the appearance of Gardner's theory of multiple intelligences, the gifted were spotted in a variety of fields and a high degree of general intellectual ability was mostly abandoned as the undisputed standard of identification. But, among the gifted, there is still a high representation of those whose IQ is expressed in highest scores.

The ability of divergent thinking, the ability of focused attention, good memory, and easy learning are mentioned as cognitive determinants of gifted individuals. Characteristics that are classified as general intellectual abilities are the richness of the vocabulary (vocabulary is both quantitatively and qualitatively richer), a large fund of different information, the ability for abstract thinking and logical reasoning, and quick and accurate spotting details (Koren, 1989).

Motivational characteristics

Intrinsic motivation is highly developed and the child is self-motivated through the process, not only by a goal and/or extrinsic reinforcement. For a child, working on a task, solving a problem, learning, discovering relationships and connections, experimenting, is in itself motivating. The intrinsic motivation inherent in children remains strongly tied to a topic, area or problem over a long period. Gifted children are especially motivated for those areas in which they have developed high abilities, which in turn affects even more pronounced development in this domain. They can spend hours working on a problem, without a need for additional external support (which can sometimes be disruptive) and without any signs of fatigue.

Socioemotional characteristics

Research shows that potentially gifted children express a greater ability to empathize, a higher degree of sensitivity, emotionally richer vocabulary, the ability to express their emotional experiences through some form of creativity. They are more emotionally stable, better at regulating their emotions, they are able to „read” the emotional states of others. It could be said that they have emotional intelligence. Furthermore, characteristics of the gifted are also the following: a positive image of themselves, self-esteem, self-confidence, setting high goals for themselves, lack of fear of criticism, a sense of self-worth and propensity for perfectionism, or setting high standards in their own and work of others (Cvetković-Lay, Sekulić-Majurec, 2008). But, on the other hand, research also indicates emotional instability, an imbalance between the development of intellectual and emotional development, which is why they express certain problems and have specific needs for emotional support, support in the development and in the maintenance of their self-esteem and self-confidence that will be realistic in accordance with their performance (neither too much nor too little).



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Behavioural characteristics

Which behaviours we will observe depends on a combination of abilities, creativity, specific skills, emotional stability, personality traits, and the context the child is growing up in (Stankovska et al., 2003). In general, we can say that when a behaviour is in question a potentially gifted and creative child shows different interests, explores and experiments, compares and notices differences/similarities, describes, shows and constructs, combines different media, creates, engages in pretend games, uses imagination, explores using all senses, answers comments and questions, participates in discussions about what has been done and stands out with more “mature” behaviour among his/her peers. These children often show the ability to lead and organize others, show a willingness to take responsibility, easily adjust to new situations, are well organized and are accepted by their peers.

Kindergarten teachers most often recognize giftedness in behaviour by observing children’s play (complex role-play games, understanding or creating rules, etc.), musical expression, art production, dance, and motor activities. Rich imagination, good motor skills and creative expression can be noticed in all the above activities. Also, a high degree of physical energy is often noticed in children’s behaviour (Koren, 1989), (less need for sleep, for example).

Apart from highly developed abilities and certain personality traits, the most important of which is motivation, potentially gifted children also have an imaginative application of knowledge, i.e. creativity. Creativity is no less important component of giftedness because the achievement that is considered an indicator of giftedness is expected not only to be above average but also to represent a creative contribution to the field in which it appeared (Cvetković-Lay, Sekulić-Majurec, 2008).

Environmental factors

Apart from certain inherited characteristics lying in predispositions for giftedness, there is also an emphasis on environmental factors that influence giftedness development. “For an individual to make a shift from potential to manifested giftedness social support is crucial (family, school, narrower and broader social community), (Koren, 2013:356). Attention has been paid to the following: quality of family functioning, the emotional climate surrounding the child, encouragement the child can get during socialization and education, global social circumstances referring to the readiness of society, and its technological and general developmental level which will prepare society and make it more sensitive for recognition and respect of high abilities. What is also emphasized is the importance of the willingness of the immediate environment to recognize and invest efforts in order to provide a child with high-quality education and mentorship (Čudina-Obradović, 1991).

Finally, it seems especially important here to once again emphasize that a gifted child is - a child. At preschool age, it is important to recognize developmental characteristics of each child. In the case of children recognized as those having potential for development of giftedness or talent in a specific field, it is necessary to offer additional incentives and thus meet their natural developmental needs for knowledge and skills which will give them opportunities for the ultimate fulfilment of their potentials.

Development of potential giftedness to a productive fulfilled one is moderated by emotional development and non-cognitive factors of giftedness. It is later on seen as excellence or expertise and/or innovation in a chosen field.



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Keywords index:

Potential giftedness – significantly more advanced in comparison to peers indicating the possibility for production of high achievements in one or more fields.

Productive, manifested, fulfilled giftedness – intellectual potential, motivation and creativity reflected in the products of a person.



The giftedness in the preschool period and in the preschool child

Danica Veselinov

Strategies and procedures for supporting the giftedness of preschool children – from the point of view of didactics

Defining the phenomenon of *giftedness* is a complex task, so despite more than a century of research on this complicated issue, in the third decade of the 21st century, we do not have a standardized definition of what giftedness is. The elusiveness of this phenomenon and its multidimensionality create additional efforts around consensus in formulating a universal definition. In addition, the constant challenges and achievements of various sciences, even though they make great contributions, at the same time represent obstacles to its precise definition. This is also supported by the fundamental division of modern conceptions of giftedness, whose disputes are based on determining the key construct, i.e. the question of whether giftedness is an *exceptional ability* or an *exceptional achievement* (Altaras Dimitrijević and Tatić Janevski, 2016). However, regardless of the polarization in determining the key construct, both conceptions agree that the giftedness of the individual is greatly influenced by the **learning/educational process** and **environmental factors**. In the following text, we will look at these dimensions in more detail.

Giftedness supporting context

In his *triarchic theory*, the famous American psychologist Robert Sternberg emphasized the combination of three units, i.e. component sub-theories, and, important for us, emphasized the importance of the context for learning and actualizing giftedness. Triarchic theory consists of three related sub-theories made up of parts of the intelligence circle and include information processing mechanisms (componential sub-theory), experience (experiential sub-theory) and context (contextual sub-theory). Context and acceptance of the contextual approach shift the focus, Sternberg points out, from the study of abilities and learning, and the results to the child's capacity to regulate his/her learning and to the ability of educators to create an appropriate learning environment (Sternberg, 2005; Gojkov, 2008). (See more in Gojkov, G. [2008]. *Didaktika darovitih*. Vršac: Visoka škola za obrazovanje vaspitača).

Renzulli's well-known theory „Three Rings” is a philosophy oriented toward the fact that children who are initially only potentially gifted can be „up for the challenge” if they are provided with appropriate educational opportunities and a stimulating environment which always „encourages to do more”. In that sense, the epithet gifted should not be tied to children, Renzulli believes, but to what is offered to them (Altaras Dimitrijević and Tatić Janevski, 2016). At the core of Albert Ziegler's model is an idea similar to Renzulli's, which indicates that giftedness should not be understood as a characteristic of the individual, but as a quality of the system of action. This further suggests that giftedness actually implies the ability to bridge the gap between a person's current repertoire (e.g. tapping piano keys) and a repertoire that would mean excellence in a domain (e.g. expert interpretation of a music piece) (Renzulli, 2012; Altaras Dimitrijević and Tatić Janevski, 2016: 19). Ziegler and co-workers emphasize three important threads in support of the gifted: mentors (mentor support), personalized learning and the process model of learning (Ziegler, Daunicht & Quarda, 2021).

Context can be interpreted as a complex network of relationships between different parts of a whole, where the context as a whole determines the way of creating mutual connections and processes between parts of that whole. Contextual learning is in contrast to the adoption of isolated facts and abstract categories, „fragmented” content from various scientific fields.



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It implies learning in which information and facts are incorporated into a certain context, because only in that what do they have meaning and significance. Then individual learning needs, interests, experiences, concepts or „personal theories” are included in learning as a whole, acting through a constant network of interrelationships, and creating a *personal context* in learning. The context for supporting the giftedness of preschool children is based on an integrated approach, which enables children to learn through the uniqueness of experiences, through the uniqueness of their thoughts, feeling and what they try out in a particular situation (Pramling Samuelsson & Johansson, 2006).

The contextual approach to supporting gifted children consists of a dense network in which stimulating space (environment), strategies and actions of kindergarten teachers, parents and other participants in working with potentially gifted children are constantly intertwined, i.e. good climate and pedagogical tact that will listen to different needs of gifted children. Younger children learn more through direct experience in contact with the environment and other members of the social community. Therefore, when preparing and organizing materials and activities, it is necessary to ensure the acquisition of direct experience with indirect methods and tools managed by children themselves (Rudge, 2008).

Interior design is extremely important. It should be borne in mind that space is not something given in advance and done, regardless of the current interest of children and the opportunity to express (gifted) potential. In building an inspiring space, it is necessary for children and adults to participate together, and for the materials in the common space to reflect their joint participation.

Preschool children demonstrate a natural, innate and extremely high degree of perceptual sensitivity, which is holistic in relation to the environment. Their receptors are much more active than in later life and show great abilities to distinguish reality, using sensory receptors different from those for perception and listening. Therefore, special attention should be paid to the design of light and colour, as well as fragrant, auditory and tactile elements, i.e. all those elements that are extremely important in defining the sensory quality of space (Suppressa, 2005, as cited in Vujičić, 2011; Walsh, McGuinness & Sproule, 2017).

Strategies and procedures to support the giftedness in preschool children

Strategies, procedures, ways and techniques for encouraging and providing support to gifted children can be viewed from the angle of postmodern didactics or, as it is most often called today, *didactics of enabling* (Gojkov, 2008) and in an even narrower sense directed to work with gifted children - *didactics of the gifted*. The didactics understood in this way is oriented toward supporting the gifted in terms of providing conditions for personalized learning, creating a stimulating environment, using heuristic strategies and procedures, emphasizing the learning process, not just products (results), respecting and encouraging the different and unusual. Heuristic strategies and methods have a special role for us within the strategies and procedures for encouraging giftedness.

Heuristics and gifted children. The word *heuristics*, *heuristic* is of Greek origin (*heurisko*, *heuriskein*, which means to search, find, discover) and is related to the cry of *Eureka* (I have found), the ancient Greek mathematician and physicist Archimedes, when he discovered the main law of hydrostatics. In a figurative sense, this cry refers to the expression of joy when conceiving a new idea or when solving a complex task. Heuristic strategies and procedures are primarily focused on children's discovery, research and understanding of objects of knowledge and the development of creative and organizational abilities of the individual (Veselinov and Kelemen Milojević, 2020; Veselinov, 2021)



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These strategies and procedures represent a qualitative step forward in the understanding of learning, and its most important aspect lies in the search for and discovery of the essence of phenomena, processes and objects of reality. The focus is on children's personal experiences, rather than the experiences of others, while developmental conversation implies a gradual cognitive step towards *eureka* (Barak, 2012). Heuristics, as the basis of something that is heuristic, represent incomplete schemes that contain initial impulses to solve a problem. The initial impulses are "sent" by kindergarten teachers (and parents), and children continue to suggest, present ideas and predict. The challenging side of heuristics is that they do not necessarily lead to a solution; their role is to support different, creative and imaginative expression and thinking. They allow us to use problem-solving strategies (our „special methods“) that suit us best and are a shortcut to a good solution or a detour. That is why heuristics always take us on a little adventure (Veselinov, 2021).

Heuristic strategies always contain elements of the problem method. This means that the following steps should be considered:

1. *Creating a problem situation* (setting and defining a problem). In a problematic situation, creative thinking is initiated, and intellectual restlessness, emotional tension and initiative are developed. What occurs in children refers to experience, instantaneous confusion, tension and curiosity. This phase is extremely important for the further course of creative and thought activity. The problem situation should be formulated specifically to show a clear emphasis on the problem. This is achieved through a variety of procedures: by discovering the connections and relationships between the data; interpretive reading of the text; presenting problems in the form of theses or statements, in order for children to choose to accept or reject; the initial facts and results are known (the goal of the situation), but now we need to find ways to solve them; by asking questions in the form of problems.
2. *Formulation of hypotheses - assumptions and decomposition of the problem* (analysis of the global into smaller problems). When formulating hypotheses, the child reformulates the problem, analyses it (decomposes), analyses the given problem, perceives and localizes difficulties, and then sets hypotheses. Children give different suggestions and find principles of solutions. In considering possible assumptions, relations are sought on the relation beginning - to end, i.e. initial situation and goal situation.
3. *Problem-solving process*. This stage is the central independent activity of children. The problem is solved by testing all the hypotheses and establishing conclusions.
4. *Drawing general conclusions*. Findings are given as well as statements, conclusions, the essence of the problem, and new facts and knowledge are included in the system of existing knowledge. The essence of the problem is understood.
5. *Implementing the conclusions in new situations*. Conclusions are used in new and practical situations.
6. *Evaluation of work results*. Talking about the course of the learning process, what were the obstacles in solving the problem; what we are happy with and what we are less happy with; what could be done differently next time; creating new ideas (Pyle, Prioletta & Poliszczuk, 2018; Veselinov, 2021).



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A few examples of heuristic procedures

☀ *Invisible letter* – what can be used to write an invisible letter, what message can it contain, how can we read it, how can we write it, and to whom would we send it?

☀ *Buried treasure* – smaller groups of children make a plan of where to bury an object in the yard; making a map for another group (involves careful planning); each group, guided by a map, searches for buried treasure.

☀ *Snail race* – determine the area on which the snails will race, as well as the method of determining which snail won. Some of the children's suggestions for the surface are a concrete wall in the yard, a lawn in front of the kindergarten, and a paper path.

☀ Project „Neverland” – How to make the Yellow Submarine (submarine material planning and construction). We bring the characters to life: Peter Pan and his fellows have to cross various objects to reach the goal; we suggest solutions: feed crocodiles, find diamonds in the sand, count Indian feathers and fish in water...

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Walsh, G, McGuinness, C. & Sproule, L. (2017). 'It's teaching... but not as we know it': Using participatory learning theories to resolve the dilemma of teaching in play-based practice. *Early Child Development and Care*, 189(7), 1162–1173.

Keywords index:

Didactics of the gifted (didactics of enabling) – modern starting points within postmodern philosophy and didactics, based on pluralism of ideas, respect for different views and models in creating a curriculum to support and empower gifted children.

Giftedness encouragement context – a network made up of the environment (inspirational/stimulating environment), strategies and actions of kindergarten teachers, parents and other adults, organization, climate and pedagogical tact to support the gifted.

Heuristic strategies and procedures – procedures related to adults and children in the research of various phenomena in a different and personalized way. Procedures that do not guarantee a solution in advance, but provide an opportunity for adventure and finding a solution in a different and unusual way. In every heuristic procedure, the following are important: the plan, monitoring and evaluation of what has been done in relation to the plan, in order to improve the practice.



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Josipa Mamužić, Lada Marinković

Creativity: why is it important to encourage it

Creativity can most simply be described as a mental activity or process that results in a new, original idea or solution to a problem. Sometimes the creative process results in a discovery that is new only to that person and sometimes it is new to most, the whole society or starts the course of civilization. In the latter case, what we are talking about is a gifted individual, whose creativity and dedication to solving a problem in a particular field and high intellectual abilities have enabled such a product.

When we describe abilities, cognitive style, affective and motivational patterns, intentions, attitudes, and values, we think of a *creative person*. If we describe the process of thinking, experiencing, and motivating during the creation of a product, we are talking about *creativity as a process*. If we describe a product, we think of *creativity as an artefact (product)* of a process and a person, while under *the creative environment* we describe the characteristics of the environment that allows or does not allow creative expression (Richards, 1999).

In their practice, kindergarten teachers most often think about creativity and recognize it through the description of the creative process, then creative personality traits, to a lesser extent through products, while a negligible number of kindergarten teachers recognize giftedness through creative environment (Pavlović, Maksić, 2014., Pavlović, Maksić and Bodroža, 2013). Research in the field of creativity indicates that assessing and measuring creativity at an early age does not have high prognostic value, but it enables the planning and organization of educational support to a great degree (Maksić, 2009).

There is a strong connection between creativity and giftedness, but not a sign of equality. Unlike giftedness, creative thinking can be learned. It is necessary to start with the incentives for the development of divergent thinking from early childhood, and more importantly, the incentives should never stop. Divergent thinking includes originality, fluency and flexibility. Originality of opinion (ideas) implies the ability to create unusual ideas. Fluency is the ability to quickly produce answers and ideas, and flexibility is the ability to change direction in thinking while solving tasks. If the product is judged by the relevant audience as good and unique, then it is also original. The elaboration is presented through the addition of details that complete the integrity of the product.

Insisting on finding only one correct solution was for a long time the basis of pedagogical practice in education. The new educational paradigm is focused on the development of those mental processes that encourage children to have creative ideas, test them, experiment with them and thus learn about the world around them.

Encouraging creativity in children refers to two levels of creativity. This means providing ample opportunities to explore various domains, experiment and practice your own imagination. Continuity in encouraging creativity is extremely important in order to integrate the creative behaviours that children show into thinking and to develop a positive attitude towards creativity.

Growing up we can follow multiple levels of creativity, but what is important for early and middle childhood is *situational creativity*. This is the basic level of creativity that has the greatest significance for the person who is their author, in this case, the child. It refers primarily to transformative learning, i.e. every time, in biological terms, we create a new (neural) connection, that is considered a creative act on a subjective level. In behaviour, we see this, for example, as insight. In the children's world, this refers to the child's previous development. For



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example, when a child creates a connection between voice and symbols or realizes that an ordinary stick can be a fishing rod, but also a limbo dance tool. (Kaufman and Beghetto, 2009).

Creativity occurs when a child internalizes certain knowledge and elements and creates new combinations. However, anyone can make countless new combinations, but not all will be creative and valuable. The new can also be bizarre, so it is not difficult to conclude that it must be, in a way, acceptable (Sawyer et al., 2003).

An individual must thus organize existing knowledge into existing schemes or create new ones. Here, the similarities between development theory and creativity clearly reappear. An individual, after insight, can spend years and years perfecting his/her findings, such as the invention of the wheel - from simple to sophisticated. Such gradual development according to complex solutions corresponds to the periods of the child's cognitive processing with regard to the developmental stages. We can say that theories of creativity complement developmental theories by explaining the emergence of novelties in development, i.e. how a child goes from one developmental stage to another. It could be said that there is no development without a certain level of creativity.

Vygotsky believes that developmental and creative processes are the internalization of cultural tools and social interactions. Internalization itself is not simply copying but transforming and reorganizing incoming information and mental structures based on individual characteristics and existing knowledge. This dynamic creates a unique individual personality. What we call creativity today used to be Externalization for Vygotsky. These two processes, together with culture and personality, are in dialogue with each other and create the ground for creative products that enrich culture. Creativity then depends on development, and development on creativity (Sawyer, 2003). Within Vygotsky's theory, creativity creates a long-term zone of future development that enables the creation of a creative personality.

For a solution to a problem to be valued as creative, it must meet several criteria:

1. Originality (lower probability of occurrence, rare compared to common solutions in that population)
2. Relevance (connection to the goal, it makes sense)
3. Fluency (creation of ideas, ability to produce a large number of different solutions)
4. Flexibility (non-traditional approaches to problem-solving, „out of the box”, the ability to change direction in thinking about the problem).

From this, it is evident that not every solution is necessarily creative or equally creative, and also that these criteria should be applied with caution when evaluating children's products.

To better understand the development of creativity, we will use the *Four c Model* (Kaufman, Beghetto, 2009). At the *mini-c level* of creativity, what someone creates is not revolutionary, but it is new and significant to them. This is how we see creativity every time a child tries to do something new. For example, when a child discovers a new way to put toy blocks together, it is a new and significant step for him/her. The *little-c level* of creativity is the growth from the previous level to the level at which children's creativity can be valuable to others in its environment. For example, parents frame a child's drawing and it becomes a small work of art for his/her family. At the next level, the *Pro-c level* of creativity, is a person who shows creative contributions in the field of his/her profession. For example, a child who has been practising and developing his/her artistic abilities for years becomes an academic painter and achieves significant results. And finally, the *Big-c level* distinguishes those who remain remembered in history for their contributions. *Big-c* includes an assessment of one's entire career, an assessment of one's contribution to other creators, and places one's products in the



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lasting contributions of society. We learn about examples of such contributions as significant legacies in science, art, etc.

It is important to note that *the little-c level* of creativity is by far the most important for research and education. All creativity begins and depends on the development of *the little-c level*. (Runco, 2004). Observing creativity as a developmental potential is important for the education of kindergarten teachers and parents because they are in direct contact with the child in the development period when the opportunities for the child's further development under the influence of the environment are most sensitive.

When we talk about creativity at an early and preschool age, then we are necessarily talking about *the little-c level* and we evaluate the child in relation to himself/herself (what he/she could do yesterday and what he/she can do today). In the assessment, we can also take into account the elaboration, i.e. how elaborated an idea is. We can certainly work with children to encourage this component, i.e. how to give an idea a „tangible” shape.

Creativity is most often recognized by kindergarten teachers in creative fields such as music, fine arts, literature, and dramatic expression, but we should not forget that creativity is also seen in cognitive, affective and motivational processes, which are potential for future creative, innovative or even ingenious solutions in other domains, such as industry, architecture, construction, medicine and all the fields of natural and social sciences, to which the child has not yet reached developmentally and cognitively. We want to emphasize here the importance of developing a creative personality and encouraging the development of creative cognitive processes.

Today we know that creativity is at the heart of educating children who will one day become musicians, artists, scientists, innovators, and those who will know the solution to the problem in the future (Kemple and Nissenberg, 2000). We can say that creativity from the earliest days depends on researching and experimenting in an enriched environment with such materials through which we gain knowledge about the world, through which we can master various skills, flexible materials and adults who encourage expression in a safe environment. The moment a child masters a certain skill, his/her path of trying out what he/she can or cannot do with the acquired skill begins. At the moment when the child has a certain fund of knowledge, there is also a space in which we encourage its recombination and synthesis. By the end of its fifth year, in the context of creativity, the child should be able to explore colours, textures, shapes, forms and space in two and three dimensions. Then, recognize and explore how sounds work, how they change, recognize and sing different songs from memory and do their variations, recognize sounds and sound samples and coordinate movements with the music. In the same period, the child is expected to show reactions in different ways to what they see, hear, smell, touch and feel. The child is also expected to use imagination in art and design, music, dance, imagination and pretence games, and stories. Creativity is seen in the way a child expresses and communicates their ideas, thoughts and feelings through the use of a variety of materials, tools, role plays, movement, creation and variation in activities related to songs and musical instruments and their variations (Sharman, Cross and Vennis, 2004).

In the New Preschool Curriculum Framework in the Republic of Serbia, one of the key starting points is that every child has the creative potential to express themselves and their understanding of the world in many different ways and to creatively connect different dimensions of their experience and process their ideas and experiences (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja*, 2019: 14).

In the Republic of Croatia, according to the National Curriculum for Early and Preschool Education and Upbringing, which is the fundamental document of preschool



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education, gifted children are not singled out as a special group, but the emphasis is placed on action towards the development of autonomy and creativity.

There is an agreement in terms of the basic meaning of encouraging creativity as nurturing children's qualities of flexibility, openness to experience, originality and innate curiosity. The role of kindergarten teachers is extremely important in developing children's values and positive attitudes toward investing effort in creativity, and in providing adequate learning opportunities, gaining experience, experimentation and imagination. Creative potentials will be developed mostly in a stimulating environment that provides space and opportunities for learning and experimenting with new materials and ideas. With this in mind, adults, parents, kindergarten teachers and teachers, until the period of late adolescence, have a role and opportunity to provide such a stimulating environment. Encouragement in childhood should be diverse in the best sense of the word, through different subject matters, experiences, senses, and opportunities that allow exploration and trying out.

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Keywords index:

Creativity – process, product, person, environment; ability to create new and original ideas.



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Potential creativity – the developmental potential of the child to produce and practice new skills and abilities, in original ways.

Originality – refers to the novelty concerning the child and/or the environment and the rarity in appearance.

Fluency – the number of ideas that a child produces.

Flexibility – the ability to change the direction of opinion, the outcome of which is a new solution.

Elaboration – completeness and elaboration of the idea by adding different elements that complete the whole.



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Josipa Mamužić

Toys and didactic tools to encourage creativity

Play is interpreted as a creative act of a child by which he/she expresses himself/herself, establishes new connections and systematizes experience, with the help of which he/she thinks, learns and creates, and creativity is seen as a game with elements of thought. In this way, play for the child becomes what creative activities are for the artist and scientist. We can say that, in relation to experience, the game has an integrative role because a large number of facts, regardless of the context, are connected into a meaningful whole. Kogan (1983) states that free play versus play with rules is responsible for creative behaviour. Games with rules have certain limits and provide little flexibility. Games with objects are often part of free play and form the basis for the development of imagination and thinking. Having in mind the insights of different approaches we can agree that play is a self-organized activity, intrinsically motivated, involving free choice and pushing the boundaries of what we know. It is both a process and a way of learning, an integrative mechanism of what a child knows (Smidt, 2001; Bateson and Martin, 2013). Play has two functions, one is developmental, especially a symbolic function such as language and the other is the regulation of one's own cognitive and emotional processes (van Oers, 2009; Rosenquest, 2002).

Along with play come toys whose basic function is to encourage development and learning. More precisely, toys must provide a child with such a space in which he/she can be the cause, the initiator of the activity, that his/her decisions can drive changes in that small space. Additionally, the educational function of toys is to prepare a child for situations that he/she will certainly encounter in his/her social and physical environment. Most toys are actually representations, scaled-down versions of real objects in our environment (e.g. cars, animals, houses, dolls, etc.). Playing with such toys, children get acquainted with the characteristics and functions of various objects and phenomena in the world. In this way, toys become a kind of mediator between the child and the world around him/her. They make it easier to turn real situations into imaginary ones that children can work through imagination or play. In other words, toys and play have an adaptive function – by developing some functions they enable the child to prepare and adapt to life situations that have not happened yet. This reduces the consequences of possible mistakes that may result from inexperience (Kamenov, 2009). The formative function of toys also derives from the adaptive one. Their purpose has an impact on social and emotional development. Learning to recognize one's own emotions and the emotions of others and react accordingly builds the child's overall personality. Toys that are designed to be used in pairs or for several players especially contribute to the development of social skills.

Participating in board games/social games, children learn to control their emotions and respect emotions of others. In addition, through board games, especially if adults participate in them, children learn the norms and moral values of the society they grow up in. Apart from those already mentioned, we should also refer to the experimental value of toys. This is especially true for toys that are designed to encourage children to think logically, plan and solve problems. There are most often sets with problem tasks in a form of a game, strategy games or sets for conducting simple experiments adapted to children's age (for little chemists, physicists, etc.). But most of these toys encourage children to think which leads to one correct solution - the so-called convergent thinking. Not diminishing the value of such games, it is important to emphasize that it is necessary to encourage the opposite way of thinking, which can produce more correct solutions - the so-called divergent thinking or creativity.



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Didactic (educational) toys are considered pedagogical mediators of mental development and psychosomatic and emotional balance. Such toys engage symbolic and logical thinking and in them children's spontaneous interest in play is used in order to systematically get to a certain developmental aim or knowledge (Kamenov, 2009). A toy has educational value if it meets one of the children's authentic needs and provides him/her with activities that contribute to his/her development and learning.

When talking about giftedness and what toys "should" be like, we will get an answer about what the toy should encourage, not what it should look like. Each toy that allows a child to just create their own innovations i.e. connects existing knowledge, and develops cognitive skills is a toy in this category. Toys that serve to encourage the development of ideas, high quality of ideas, opportunities and deciding in which direction an idea will develop are good toys. A toy that allows for questioning, original and creative solutions, decision-making, independence and learning from experience and even mistakes is supposed to encourage giftedness development. (Burnard et al., 2006, as cited in Paige-Smith and Craft, 2007).

What we need to keep in mind is that the toy will not do anything on its own. The environment in which the child plays must be supportive, the climate should be such that children are treated with respect, and the playing time is extended.

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Keywords index:

Didactic toys – toys that have the function of learning and development.



2 Play and learning network

Danica Veselinov, Nela Dujic

Giftedness support through play and learning

Since there was a man, there has been play. In many definitions of man and culture, it is mentioned that man is *homo ludens* – a man of play. Throughout history, depending on the context and the culture of the community, play has changed and evolved. Although it is basically free, play depicts and interprets the cultural frameworks in which a person lives. Therefore, when playing, an individual tries to respect the rules because breaking them destroys both the game and the culture. It is a product of the imagination and meaningful expression of a child (and an adult), seen in terms of values and models of adjustments to the cultural community the child belongs to. Therefore, when we say „that children play”, we should know that it has the same weight as when we say for an older child „he learned inequalities in school today” or for a student „he passed a difficult exam” (Paes & Eberhart, 2019).

The famous German pedagogue Friedrich Fröbel, the founder of the first establishment for institutional preschool education and upbringing, known under the now domesticated term in many speaking areas – *kindergarten*, is responsible for the introduction of play in the upbringing of preschool children. Play was the backbone of Fröbel’s entire educational process, with the goal of children’s self-development and the liberation of inner strength. Despite all the shortcomings of his conception, Fröbel contributed to the problem issue of play becoming unavoidable in further elaborations of the system of preschool upbringing, no matter how different the standpoints of their authors were. After Fröbel, it has been intensively searched for opportunities to use the great educational potentials of play, without disturbing its spontaneity and children’s initiative (Veselinov, 2021).

The word *play* usually associates us with the preschool period, when children play casually, expressing their creativity, imagination, their understanding of the environment, society, community, and friendship. Play encourages dedication, concentration, development of creativity, originality, innovation, and resilience. The child enjoys ideas, feelings, actions, and opportunities to try and practice ideas in different ways. Constant repetition and testing are possible only in play in which the child is free from the pressure of consequences in real life. This enables the child to build understanding between what he has learned before and new forms of knowledge. Through play and creativity, we create imaginary spaces as a parallel reality. Children use the experience of everyday real space from which they take a part, bring it into an imaginary space where they cross meaning and ideas, developing play together they examine, explore, try to understand, vary, and find meaning. Play is not the implementation of adult plans with a child - it starts from the possibility of choice, negotiation and joint elaboration.

Why do we say play is more than an activity?

Children who have the freedom that play allows them and who are encouraged to explore their environment, examine different materials, communicate with different people and who are allowed to make mistakes, become more flexible. Building a play pattern, children learn how to adapt to different situations and thus become more able to face life challenges. Playing, the child builds identity and relationships, explores and (re)constructs meaning, creates symbols, enjoys and rejoices in his/her newly discovered potentials. Play combines what a child knows, learns, feels, can do and imagines. Reggio pedagogy emphasizes that [...] „creativity arises from rich experience, harmonized with appropriate support for personal potential,



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including a sense of freedom to embark on the unknown” (May, 2007: 61, as cited in Krnjaja, 2018: 4).

The following definition of play seems to us to be comprehensive, current and considered in several aspects and indicates that it is [...] „a freely chosen, self-regulated and essentially motivated act in which the child feels good, activates all his/her potentials and goes beyond his/her limits. Play is the basis for developing and manifesting all dimension of a child’s well-being” (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja*, 2019: 26). *Flexibility*, as a key feature of play, allows the child to imagine and build an environment in which he/she can change himself/herself and his/her actions and creatively shape the world around him/her. It is the flexibility that enables the basic characteristic of the play not to be activity or content, but the specificity of the approach. That is why play is a goal/value in itself and is always more than an activity; it is the way a child approaches activity. Play allows the child to feel satisfied, happy, fulfilled, powerful, effective, free, respected, and to act differently. Every child does this in their own way.

Giftedness support through the network of play and learning

Modern preschool programmes combine elements of care, preventive health and social protection, as well as high-quality educational work with children from birth to school, in order to enable optimal growth and development of each child, and provide sufficient incentives for learning and education, which forms the basis of an integrated approach to learning. In an integrated approach to learning, each topic, problem and issue is approached according to observation from all perspectives, and data from different fields of work and areas of knowledge are collected.



Photos 1, 2, 3 and 4. *The network of play and learning – learning and exploration in play*

This approach to learning enables children to learn through the unity of experiences and what they do, through the amalgamation of their thoughts, feelings and what they practically



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try in a specific situation. It is important to point out that integrated learning is a **process associated with the sense** that a child finds in learning, as opposed to learning through separate individual contents and the so-called directed activities. Enabling children to learn in an integrated way means enabling them to gain rich and diverse experiences and to learn through relationships with peers and adults. This is achieved through provision of a learning environment, as an inspiring and provoking environment for children to explore, and by ensuring the participation of children in joint activities with peers and adults in kindergarten and the local community. In play, children develop various types of literacy, but not in terms of directive literacy – reading and writing like in school, but understanding different symbols, letters, numbers, etc. In this way children's learning becomes meaningful, children love to learn and find purpose in learning.

Play-based learning provides children with opportunities to develop creative thinking skills by allowing them to look at situations from different perspectives, think about alternative problem-solving strategies, and practice thinking in different ways. It is emphasized (Ramani & Brownell, 2014) that in play with peers, children learn to cooperate in solving problems and setting common goals. In addition, participation in social games enables children to develop their negotiation and conflict resolution skills, having in mind that they have to identify a problem first and then discuss it in order to reach a solution that is acceptable to all. Since children participate in creating the goal of play activities, they can change the course of play using creative thinking skills (Paes & Eberhart, 2019).

Playing, children can experience and shape the world in accordance with their values, which are different from reality. Thus, children have the opportunity to use their creative thinking skills and share their experiences with peers or other children. Negotiation skills are practised through play, experimenting, expanding and changing the world of play children have created. Play thus becomes a source of learning. Joint learning of children and adults implies that there is a common focus of attention and interests of children and adults, a meaningful research problem for children and adults, joint activity in heterogeneous groups in relation to age, competence, culture and different opportunities for personal engagement and research (Krnjaja and Pavlović Breneselović, 2017; Veselinov, 2021). Play, understood in this way, represents an endless resource in encouraging the potential of gifted children of preschool age.



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Photos 5, 6, 7, 8 and 9. *Play as a never-ending resource for encouragement of creativity potentials*

In addition to problem-solving skills, encouraging the giftedness of preschool children inevitably involves participating in creative activities, including disagreement, imagination, cognitive flexibility and tolerance, and supporting ambiguity and unpredictability. Russ (2016) points out that cognitive and emotional processes involved in play and creativity are similar. Sociodramatic play gives children the opportunity to develop their creative thinking skills because they can use objects that symbolize other objects (for example, a stick can turn into a magic wand), invent stories, construct role-plays, determine themes for games with peers (for example favourite dish, monsters, dinosaurs, etc.). As conditions in the world of children's play are constantly changing, children often revise the rules of the activity, which encourages the development of their creative skills (Pramling Samuelsson & Johansson, 2006).

The role of kindergarten teachers and other adults in supporting children's giftedness through play and learning

According to the way the kindergarten teacher and other adults support play, we usually talk about three types of play: *open*, *extended* and *guided play*. The essence is that in all three forms the kindergarten teacher/other adult participates and gives their contribution in the following way:

☺ in *open play*, the dominant role of the adult is to monitor play and prepare the environment by providing a variety of materials that are easily accessible to children and suitable for research;

☺ in *extended play*, the kindergarten teacher and other adults usually enter a role to support play; provide various materials and create with children, for example, play props;

☺ in *guided play*, the kindergarten teacher initiates, participates and directs the play, agrees with the children and takes care not to disturb the play pattern; offers the play concept



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and rules; shows games with rules, and leads play on the training ground, etc. (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja*, 2019).



Photos 10 and 11. *Kids in extended and guided play*

In all three forms of play, adults contribute (sometimes more directly, and sometimes less directly and instructively) by providing material, supporting or expanding the game. Within these forms of play, categorized according to the ways that kindergarten teachers and other adults participate in them, there are various types of motor games, symbolic games (imagination and role games), construction games, didactic games etc. Giftedness can be supported through many creative techniques. Some of them are: „We can do it differently”, „Discover”, „Choose”, „Connect differently”, „What is it made of”, „What story are we from”, „How should we make a plan”, „Who is missing”, „How can I say...” etc.



Photos 12 and 13. *Project products serve for symbolic game*



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Examples of encouraging creative games and divergence

☺ Project „Mosaic” - in one conversation, the children had different ideas from Gaudí: play and research in the spatial whole of the constructor: How to build a different Barcelona?

☺ „Time Machine” Project - we improvise and go back in time. The variety of ideas was reflected in the fact that some children imagine dinosaurs fighting, describing the way, joining forces and changing common ancestors (it does not necessarily mean that their ancestors were dinosaurs... maybe they were big birds, such as turkeys, whose head resemble dinosaurs); which is older: a chicken or an egg? A description of dinosaur clothing, the language they speak, and the fight between the dinosaurs. The imagination went further, so there was an intertwining of the game and the planned learning situations through the interest in learning about cave people. Exploring through the game continues.

☺ Project „Glasses” - a symbolic game: who wears them and why (through research questions); what if we look through pink glasses? (Research question in the extended game).

☺ „Good tree” - research questions through play: Why is a tree good? How can we determine how old a tree is? Who lives in a tree? Constructor games: make something out of wood; Symbolic game (imagination and role-play): Who is a tree and who is a leaf? Hey, the root is missing... We play and make a tree in a spatial whole - a workshop. The kindergarten teacher and parents provided unstructured and semi-structured materials.

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Note:

- Photos from 1-11 were taken by kindergarten teachers Nela Dujčić and Višnja Pešić; PI: „Poletarac”, Odžaci;
- Photos 12 and 13 were taken by kindergarten teachers Vesna Radovanović and Sanja Ivkov; PI: „Čarolija”, Vršac.

Keywords index:

Children's play – the highest form of research characterized by flexibility, speculation, gameplay, and arbitrariness, and thus make it more than an activity. Depending on the role of an adult, it is most often based on open, expanded and guided play, which includes constructor games, didactic games (and games with ready-made rules), symbolic games (imagination and roleplay), motor games and similar. Playing, children explore, and play intertwines with learning, and that is why we say that play is the highest form of research.

Integrated approach to learning and development of preschool children – integrated learning is a process related to the meaning that the child finds in learning (holistic approach), as opposed to learning through separate individual contents. Enabling children to learn in an integrated way means enabling and gaining rich and diverse experiences and learning through relationships with peers and adults. This is achieved by providing an environment for learning in kindergarten, as an inspiring and provocative environment for children to explore, and by ensuring the participation of children in joint activities with peers and adults and the local community.



Lada Marinković, Aleksandra Marcikić, Snežana Bulatović

Stimulating environment: support to promote giftedness

To support the promotion of giftedness, the stimulating environment can be seen from at least two points of view. The first, broader one, refers to all those social factors that enable the gifted to be given opportunities to develop and show their products. They include the readiness and openness of society to accept diversity, the existence of educational policies that will recognize the needs of the gifted and provide them with appropriate conditions for learning, development and advancement and the education of kindergarten teachers who will directly deal with identifying, nurturing and encouraging the development of potentially gifted and provide support to their families. The second, narrower one, refers to the immediate environment of the child, which will provide recognition and encouragement for the development of potential talents of children in the preschool institution. This immediate environment can be further seen through the characteristics of a) physical, and spatial environment and b) social environment, relationships and communication atmosphere with which the child is surrounded in the kindergarten. Here we will talk more about this narrower position that refers to space and relations in kindergarten.

Physical environment

Just as the saying „clothes don't make the man” indicates the importance of externally visible elements on our impressions of a person, so the physical characteristics of a kindergarten space can create a first impression of how and what to do, learn, and live in a kindergarten. Also, if we imagine that we are a child who comes to the kindergarten for the first time, we can ask ourselves what it is that we want the child to have as a first impression of the kindergarten. Is it a place where I will feel good and safe, where I will be able to play, which is full of interesting attractive objects, will my mom and dad be able to see what I do, are there adults and children I can trust etc.

For a gifted child and to encourage the development of creativity, the physical environment should provide a) stimuli appropriate to his/her curiosity and interests, b) space for research and experimentation, and c) aesthetics that provide a sense of security and warmth. The physical space that a gifted child needs refers to the closed space, but also to the possibility of using the open space. The external space should provide the child with incentives to learn about the world around him and give incentives that provoke his/her desire to intervene in it per his/her needs.



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Photo 3. *Outdoor space, call for research*

Photo 4. *Play with unstructured materials*

The child's immediate physical environment should be safe, familiar and predictable, personalized and adequately stimulating (Pavlović Breneselović, 2012: 138). Thus, the interior space should be arranged through several structured and interconnected units, adapted to work on projects, and enriched with materials for play and exploration (Stojić, 2019: 82). Materials and resources in common areas and the educational room should encourage, inspire and provoke research. They should be as natural as possible (unstructured and semi-structured), so that the child can use them in different ways, to motivate him/her to creative manipulation and thinking, and to provide opportunities for creativity. The materials should be the educator's response to the child's recognized activities in order to expand his/her experience, motivate him and provide learning using all senses.



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Photo 5. *The study space inspires research*



Photo 6. *Children use semi-structured material in different ways*



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Photo 7. Kindergarten teachers provoking research

The expression that environment is the *third kindergarten teacher* has become a regular component of the professional vocabulary of kindergarten teachers. When asked what the kindergarten environment should be like, as the third educator who encourages giftedness and creativity, in the research conducted by Mudrinić and Mandić (Mudrinić, Mandić, 2019:87) on a sample of 120 kindergarten teachers, the following was obtained: physical environment should be enriched by a variety of materials, real-life objects, natural and unstructured materials, books, encyclopaedias, magazines, Internet access, objects that invite research, music of various genres, light effects and other sensory stimuli.



Photos 8 and 9. Light and shadow research workshop



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Under the physical environment that encourages giftedness and creativity, kindergarten teachers also mention the large outdoor space of the kindergarten (yard) and the kindergarten that uses the resources and spaces of the local community, enabling research outside the kindergarten.



Photo 10. *Local community resource*

In addition to materials and equipment, research participants suggested ways to use them. They pointed out that it is important that the child can manage all installations and manipulate them, change them and create in accordance with his/her interests, as well as that all materials should be available to children.



Photo 11. *Semi-structured material for creation and manipulation*



Photo 12. *Semi-structured materials for manipulation*

To support the creative potential of children, respondents believe that it is necessary to provide a flexible time structure of the day, not to interrupt the creation process, provide support for peers and adults and nurture the research culture. Kindergarten should enable the child to, per his/her needs, change the space, organize it, lead activities and choose topics.



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Photo 13. *Material used by children to independently create new spaces*

Kindergarten should be a flexible environment so that the child can independently design the space he needs for the activities he/she wants to organize. The space should be safe, supportive and stimulating for children's self-organization. Kindergarten teachers state that it is important to provide a space where children can be alone when they need it. A space that is not overcrowded, equipped with basic furniture, comfortable and which the child can adapt to his/her needs.

Smaller hidden spaces, partitions, mirrors, screens, large boxes and similar materials that the child need and that can provoke experimentation are also desirable. It is important to create a space that allows the child to enjoy his/her solitude. That spatial unit for solitude can also be „a small tent where a child can hide”, and „soft, warm, homely”, as stated by the kindergarten teachers – participants in this research.



Photo 14. *Spatial unit for solitude decorated with family photos*



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Social relationships environment

In order for a child to show his/her innate potential, he/she needs adequate care, a supportive environment and relationships (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja, 2019*). As a social being, from the moment of his/her birth, the child is naturally focused on relationships with adults and peers. He/she is an active participant in them and interacts with his/her family members, peers and other actors in social life in the local community.

It is difficult to say which relationships are more important for the development and encouragement of a child's potential, peer or adult relationships. Both have their significant place in the development of personality, self-confidence and self-esteem, and the importance varies in relation to age characteristics and needs. Kindergarten as a meeting place with a large number of peers can significantly influence the self-perception of a child with highly expressed potential in an area, but can also be an incentive to develop interests and model behaviour that encourages and activates the potential of a child from a non-stimulating environment.



Photos 15 and 16. *Creative expression of children in the spatial whole for visual arts*

By comparing and observing others, the child forms his/her social skills and becomes aware of his/her own position in the group of peers. A kindergarten teacher who has the skills to manage social dynamics in a group, recognizes the individual characteristics and needs of children, has communication skills, can play a key role in accepting and supporting the potential of each child and promote the right to diversity through practice. Relationships that foster potential reflect a sense of security, provided through continuity and active participation. The adult's reaction to the child and his/her activities affects the child's sense of self-worth, his/her learning capacities and his/her growing sense of belonging to a certain community (Pavlović Breneselović, 2012:135).



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The child learns not only from what he/she sees and experiences around him/her and from his/her own activities but also from the ways others treat him/her. Peers are a source of support and challenges and the child through them learns to cooperate, follow, accept, compete, take the lead and resolve conflicts (Pavlović Breneselović, 2012:136). Through relationships with peers and adults, the child learns the skills of self-regulation of their emotional reactions, which are significant for further course of development and productivity of gifted children.



Photos 17 and 18. *Building peer relationships*

A kindergarten teacher who encourages children's initiative consults children, sets rules for relations in kindergarten in a partner relationship, his/her behaviour and messages model ways of understanding the world and the attitude toward creativity, creates space for forming a secure affective connection as a prerequisite for healthy and productive relationships and support for the child's potential. As a careful observer who accepts the child in his/her uniqueness, pays attention to his/her specific interests and allows him/her to focus on the activities he/she is engaged in (places of solitude, flexible time structure, respect for the process, choice of activities for children and adults (Mudrinić, Mandić, 2019: 88), the kindergarten teacher provides an environment that promotes and supports giftedness and creativity.



Photo 19. *Building relationships between children and adults in joint activities in kindergarten*



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Note:

- Photo 2 was taken by kindergarten teacher Svetlana Pejović, PI “Bambi” Kula, kindergarten „Šećerko”, Crvenka.
- Photo 4 was taken by kindergarten teacher Bojana Vlahović, PI “Bambi” Kula, kindergarten „Vrtuljak”, Kruščić.
- Photos 5, 7 and 12 were taken by kindergarten teachers AnaMarija Farkaš, Maja Krnjajac and Jasmina Mikulić, PI „Bambi”, Kula, kindergarten „Sunčica”, Kula.
- Photo 13 was taken by kindergarten teachers Senka Milošević and Jadranka Huk, PI „Bambi” Kula, kindergarten „Veverica”, Crvenka.
- Photos 1, 3, 6, 8, 9, 10, 11, 14, 17, 18 and 19 were taken by kindergarten teacher Aleksandra Marcikić PI „Mladost”, Bačka Palanka.
- Photos 15 and 16 were taken by kindergarten teacher Olivera Kulešević, PI „Radosno detinjstvo”, kindergarten „Novosađanče”, Novi Sad.

Keywords index:

Environment as a „third kindergarten teacher” – a flexible environment that inspires and motivates children and kindergarten teachers to research and learn together.



Josipa Mamužić, Aleksandra Marcikić

Project learning

Project learning as the name suggests is learning organized around project activities but is more than the sum of the activities themselves. It represents one of the ways in which today's curriculum can be modernized. In this way of working, children try to find solutions to problems from real-life situations. Project learning can be organized at the level of the whole group or for children who can and want to do more. Children with accelerated development can have various benefits from this way of working. Project-based learning requires active involvement in researching relevant content and teaches the skills needed to respond to a problem. Children create, get involved in problem-solving, make decisions, research, and work with some autonomy on real products and their presentation. Expert-led group is required to ask authentic questions and use a variety of tools. One of the advantages of this way of working is giving purpose to the process of learning and memorizing general knowledge and acquiring skills through working on real products as solutions to problems in the local community.

The steps of project learning are:

1. Selection and presentation of the project

An event where children are introduced to the topic which aims to get them interested in the content. It can be a video, discussion, guest lecturer, or trip, and essentially serves to attract attention. In this step, it is necessary to intrigue and involve children in thinking about the topic from which they will create the question.

The questions that are asked are open-ended, they introduce the problem, one or more target questions which will be answered at the end of the project are asked, and the question is related to educational goals. The goal is to arouse curiosity (intrinsic motivation, according to the theory of Ryan and Deci) and answering the question itself should be a challenge (Flow's theory, Mihaly Csikszentmihalyi).

2. Develop and acquire knowledge and skills

It refers to the adoption of understanding that will help answer the question. The job of kindergarten teachers is to highlight crucial knowledge and content that will be decisive to the topic, and which should be related to outcomes and educational goals. Children should be clearly asked and told what to learn and what skills they will develop in order to successfully master the project, i.e. answer the question. Children lead the pace of the project, and kindergarten teachers monitor, provide knowledge, motivate and guide.

Involvement in research, in order to answer the question, will result in asking new questions, using different sources of knowledge, and developing ideas about the answers to the questions asked at the beginning. Therefore, this phase includes mini-lessons and tasks that stimulate curiosity and research.

3. Project development and upgrade and answers to questions

At this stage, children have the right to choose what kind of product they want to make and which will be the answer to the question. The product is based on the knowledge that the children gained in the second step. In this way we nurture motivation. How the product will look depends on the age of the children and their experience with project-based learning.



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Products in their nature can be answers to philosophical questions (e.g. who is a hero, what it means to be a good friend, etc.). Such a product can be a debate, a theatrical play, a monologue, the development of a point of view, etc. A product can also be a production that includes planning, organizing, and finishing. For example, products that answer the question „How can we create a new park?“, „How can we solve the problem of waste sorting?“. The third type of product refers to taking on a real role and gives answers to the question, e.g. „How can we, as doctors, prevent disease transmission?“, „How can we, as engineers, make models of bridges across our river and test their durability?“.

4. *The project must include criticism and improvement*

It is necessary to continuously provide feedback on the work and thus work on the development of 21st-century skills: critical thinking, problem-solving, cooperation and communication, creativity and innovation.

5. *Presentation of the product that answers the question.* Presentation of the products to several different audiences motivates high quality.

6. *Evaluation*

The final step involves an evaluation related to the completion of the story and a summary of the children's impressions of the work. In this phase, we summarize what we have learned, how was the experience for us, what we can improve, etc.

In project learning the emphasis is on the process, which must include learning new skills and autonomy and connection with the local community. Products are important here but as a tool for acquiring knowledge and skills. In order for something to be called project learning, 5 criteria need to be met:

- Centrality, project learning is a central, rather than a marginal activity; other activities are organized around it
- The focus is on problems and issues that motivate children, a link is made between what children know and what they can upgrade with new knowledge
- Projects engage children in constructive research, meaning that they must ultimately involve constructing and changing existing knowledge into new and upgraded ones; if the project involves the application of already existing knowledge and skills, it is not project learning, it is an exercise
- Projects are important, related to children to some degree, include autonomy, choices and supervision, responsibility
- They are realistic, „unusual“, involving real problems.

One of the examples of this approach is chosen from non-institutional education. The program is called „I have an idea!“. The skills we encourage within the programme are basically fluency, flexibility, originality and elaboration. All activities are carried out within the domain of children's interests. Thus, the content of programmes changes, knowledge about the world around us is adopted, but at the same time, much more important skills are adopted. For example, through the topic of Wild Cats, children studied this topic in 12 workshops, but they also learned to use web 2.0 tools in the zoo, how to make a quiz, what it takes to design and bake a ceramic cup, how to paint with your fingers, how to make a Thaumatrope on the topic they are studying. In addition to meaningful knowledge about the world of wild cats, all activities include integrated thinking exercises, acquisition of knowledge about the world and



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the acquisition of various skills. Between meetings, children have the opportunity to expand their knowledge through independent projects or have fun with one of the activities offered on the topic they are studying. This way of working is extremely suitable for curious minds eager to adopt, try and prove. The programme offers space for the presentation of ideas, their production, and elaboration and seeks to create a supportive atmosphere where ideas can find fertile ground.



Photo 1. *Presentation of the drawing of a 6-year-old girl created through project learning on the topic of prehistoric man*

Below is an example of the topic „Prehistoric human” which was done individually with a gifted girl aged 6 years.

Motivational event and introduction to the topic: the French cartoon *Il était une fois... la vie* (Once upon a time there was a human body).

Discussion and asking the question that is the bearer of the project learning: „To what extent are we prehistoric?”

Acquisition of knowledge and activities that helped answer the question:

1. Lascaux Cave Paintings-research of primary art, creating drawings based on drawings in the caves (oil pastels, brown paper, spray paint, gloves, drawing literature);
2. Ceramics (das air-hardening clay or clay, paintings of ceramics, symbols from ceramic vessels, wooden sticks, protective nylon);
3. Production of painting tools (twigs, feathers and various leaves, optionally various pigments or powder paints, larger painting paper);



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4. Production of a water bottle (water jug, paper, wood glue, rope, plastic bottle, white and brown acrylic paint, picture of the bottle);
5. Prehistoric clothing, display and production of shoes (clothing material, leather, rope, old shoes);
6. A figure of prehistoric man (doll, leather, fabrics, ropes, etc.);
7. Making necklaces (shells, twigs, white clay or air-hardening clay, twine);
8. Cave making (brown paper, wire, wide adhesive tape).

Individual feedback is provided and the conversation sought to encourage and connect the content of learning with the answer to the question. The presentation was made in such a way that the installation was set up and that the girl invited significant adults and told them how she worked on each project and to what extent what she learned can answer the question. Finally, an evaluation of the work with the girl was made.

The answer to the question that the girl concluded after work:
„Prehistoric man was as creative as we are, that helped him survive.”
„Humans should spend more time in nature, like the prehistoric man.”
„Prehistoric man loved to decorate like today’s people, to make himself look special.”
„Everyone needs protection, so we build houses like a prehistoric man was in a cave.”

At this point, we are offering an overview of work through project learning in kindergarten with gifted children. In research, through a project approach to learning, gifted children seek to stimulate appropriate quality and continuity, set themselves challenges, high standards and expectations, and display great energy. Their interest in developing the project is intense and they are very committed to their choice in the domain of their own potential. In the project approach to learning, a gifted child has his independence, and at the same time acts assertively and has moral sensitivity.

In everyday situations in the context of a real programme in kindergarten, gifted children are, with their potentials and interests, sources of reasons for starting projects. A kindergarten teacher who encounters such situations in educational practice needs to support and encourage them. During the project learning, the kindergarten teacher encourages the potential of the gifted child with provocations that are meaningful to the gifted child, deepens his research and opens opportunities for learning and new ideas.

By consulting with children in the process of a project approach to learning through conversation, a deeper understanding of the child’s experience, his ideas and research possibilities are sought. In the spatial units in the kindergarten, the kindergarten teacher expands the game with means and materials that encourage the gifted child to explore his own potential. It provides him with sources of knowledge and together with him researches and supports him in his research.



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Photos 2 and 3. *Exploring light and shadow*

„Children’s capacities are often underestimated because adults see them from their own perspective and because adults fail to create an environment in which the child will be able to articulate their expectations, view and competencies” (*Godine uzleta:osnove programa predškolskog vaspitanja i obrazovanja*, 2019).

„Projects enable children to explore and engage in meaningful situations, in which they make creative connections between previous and new experiences. In the project, children of different ages explore and learn from each other, and each contributes their own authentic experience. The different ways in which children participate are valued as a beneficial contribution to the learning community” (Krnjaja and Pavlović Breneselović, 2017: 48). Through the project approach to learning, children learn to build partnerships with children and adults.

Building a gifted child’s relationship with peers in kindergarten is important because gifted children are often isolated from their peers because of their potential, so it is important to encourage them to cooperate with each other in order to build relationships. The kindergarten teacher encourages relationships but does not force them. With gifted children which are socially highly competent - leaders should pay attention to empathy in relationships and put them in situations where they can experience that it is okay not to be first/best in everything (everyone is good at something; it is okay if sometimes my wishes are not accepted).



Photo 4. *Building relationships through reflection on the project process*



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Photo 5. *Building relationships through research during the project*

The importance of building a gifted child-peer relationship in kindergarten and their connection in research through the project process is all the greater if we are aware of the fact that gifted children often socialize with older children than with their peers. Gifted children notice relationships between people faster, and thus develop their good leadership skills. Just as they enjoy being in the company of others, they enjoy independent activities more than others in which they explore, create, think, act, and thus gain rich experiences in relation to their peers. This way of perceiving a gifted child and his/her peers who have asymmetry in knowledge, competencies and experience creates an environment in which everyone feels safe, has continuity of their own experiences and active participation, and having this in mind the kindergarten teacher builds the relationships between the gifted children and their peers by dosing their own involvement while maintaining balance in respect of differences between a gifted child and his/her peers. “Many famous people often remember that in their very early childhood they became interested in certain topics or began to develop certain abilities. In addition to the inner motive to deal with certain topics, the environment in which they grew up was important for their further development” (Nišević and Marinković, 2013). Kindergarten teachers as reflective practitioners have a sensitivity for each child and a professional component as a basis for creating situations and environments in which both gifted children and their peers act in the domain of their potential.

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Note:

- Photo 1 was taken by Josipa Mamužić, Association „Klikeraj”.
- Photos 2, 3, 4 and 5 were taken by kindergarten teacher Aleksandra Marcikić, PI „Mladost”, Bačka Palanka.

Keywords index:

Project learning – a method of learning in which children can be actively involved in the learning process through work of life and personal topics.



3 Professional development of kindergarten teachers in giftedness

Lada Marinković, Snežana Jocić, Sunčica Vuković

The Role and Importance of Preschool Teachers' Professional Development in the Field of Giftedness

Respect for the right of all children to education including the respect for all individual differences and needs has for long been oriented to professional education and sensibilization of preschool teachers for work with children manifesting developmental issues or delays or have special educational needs due to the fact that they belong to marginalized groups. Recently, the professional and academic public, along with the needs imposed by new technological revolution, have encouraged the changes in the field of education, having pointed out the great importance of environmental incitements for the development and nurturing of potentials of the gifted, especially creativity development.

The initial education, i.e. first level higher education studies of preschool teachers has not paid sufficient attention to the development of competencies for work with potentially gifted children. Furthermore, they generally have not been educated to recognize these potentials through other forms of professional development. Sporadically, preschool teachers have had opportunities to intuitively or with the assistance of parents of a gifted child recognize his/her exceptional abilities, interests or skills, but they have not been educated to provide such a child with the appropriate developmental encouragements. This is the state of affairs found in all the countries in the region.

Accordingly, the research has also shown that there is a lack of knowledge among preschool teachers on how to identify these children (Vojnović, 2005; Panić, 2014; Čotar Konrad, Kukanja Gabrijelčić, 2015; Nikolić, Grandić, 2015; Nikčević-Milković, Jerković, Rukavina, 2016), and especially the insufficient knowledge and skills for planning the encouragement of development of a child's interests and abilities (Čonrad, Kukanja, 2015). It should also be mentioned that previous practice in upbringing and educational work and organization, i.e. the plan of daily activities, did not go "hand in hand" with the needs of potentially gifted children. Unlike the preestablished and in advance planned activities within the former program of preschool education and upbringing, the new Preschool Curriculum Framework in the Republic of Serbia, project approach, flexible time organization following interests of children, diversity of offered materials and the emphasis on preschool teacher as a reflexive practitioner, individualized approach and other newly introduced stipulations have all offered wider possibilities for encouragement of creativity and potential giftedness in children. In accordance with new expectations from a preschool institution, the role and competencies of preschool teachers, it is beyond dispute that they themselves have to be further empowered in order to do their job properly.

Nowadays, education of preschool teachers is oriented towards lifelong learning as one of the key competencies of those who work with children (Gojkov et al., 2008, Zuljan-Valenčić, 2008). There are ideas that a "mandatory criterion" for the selection of teachers for potential work with gifted children should, among other things, be inclination to professional development (Kevereski, 2009).

The Council for Exceptional Children (CEC) has published the standards for the programs created for workers in education who are supposed to work with gifted children. All of them must understand and be familiar with the theoretical contents and terminology, the



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characteristics and indicators of giftedness in children, including those children who are twice-exceptional, to know the differences in learning styles, developmental characteristics, cognitive and affective teaching strategies, to be able to plan differentiated and individualized activities and to encourage critical and creative thinking (NAGC - CEC, 2013).

Guidelines determining the standards of competencies of preschool teachers and their professional development were defined in Serbia in 2018. In this document, competency of preschool teachers is determined in three fields: 1) immediate work with children; 2) development of cooperation and learning community; 3) development of professional practice. In all the stated fields professional development is necessary in order to improve the quality of upbringing-educational practice in preschool institutions. Accordingly, preschool teachers have undergone professional development in a variety of areas, mostly referring to the inclusion of children with difficulties, violence prevention, research work, IT and communication technologies, communication skills, management skills, work with gifted children and others. It has been emphasized that preschool teachers should recognize the importance of professional development and to be motivated to develop in this sense and that the motives for professional development and improvement should be related to a higher quality of work with children.

Knowledge on giftedness, characteristics of various types of giftedness, methods of giftedness development encouragement, and first and foremost ability to identify giftedness, i.e. giftedness potentials are crucial for gifted individuals themselves. Karnes (Karnes et al., 2005:25) has pointed out that without early identification, potentially gifted preschool children are at risk of developing signs leading to failure, a decrease in motivation, lack of interest in academic growth, and even the tendency to „hide” giftedness striving for being closer to the peer group and the majority with a typical course of development.

Continuous professional development, along with initial professional education, implies constant professional improvement and further education (Paser, 2008). Professional development is seen as the process of lifelong learning and personal change implying voluntary change „from within” (Valenčić-Zuljan, 2008). In other words, incentives for such a form of professional development should come from the preschool teacher her/himself, rather than being imposed. Just like the case of gifted child education, the preschool teacher must have intrinsic motivation for additional education dedicated to work with the gifted. Such a standpoint is also suggested by Sušić (Sušić, 2006), stating that „it is not acceptable if preschool teachers undergo professional development only because they are obliged by the law. It would be best if the motives for learning and development originated from the deep inner needs not imposed from outside”.

A modern preschool institution is seen as an environment which should open up possibilities for identification and addressing the developmental-educational needs of all children, to meet their abilities and develop their potentials. Having in mind the crucial and irreplaceable role they play in identification of children’s special abilities and giftedness, the problem issue of a preschool teacher is one of the most important for a desirable outcome of work with the gifted.

The support provided by parents and preschool teachers and teachers is a decisive factor in the development of preschool children (Benito, 2003; Gojkov et al., 2008; Sturza Milić, 2009a, 2009c, 2014). The same authors suggest that there is a visible contribution to the developed capacities of those potentially gifted children who had tamely provided appropriate environment, family factors and educational possibilities (Sturza Milić, 2014).

The general structure of study programs at different levels should aim at encouraging of professional autonomy and reflexive practice of future preschool teachers and teachers who are supposed to acquire knowledge, build attitudes and practical abilities leading to continuous professional development and self-development (Stojanović, 2008).



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Kukanja Gabrijelčič (2014) in her research states the data supporting the importance of professional development of teachers for work with gifted children. The research results of the mentioned author have shown not only that there is a lack of systematic pedagogical training of teachers for work with gifted children but also that society (in this case Slovenian) does not pay sufficient attention to the improvement of educational system in this aspect.

In the research conducted on the sample of 160 preschool teachers in the Srem county (the Province of Vojvodina) Panić and associates (Panić et al, 2014) have found that only 20% of preschool teachers state that they apply certain forms of additional support in their work with the gifted. The support refers to the enriched learning environment. Preschool teachers admit insufficient competence for organization and realization of work with the gifted. They estimate that their initial education does not prepare them to a sufficient extent for work with gifted children. The same research has come to a finding that 69,8% of preschool teachers consider that additional education and better cooperation with professional associates (pedagogues and psychologists), as well as experts in the field of giftedness is necessary for a higher quality of their own work with potentially gifted. Around 32% of the preschool teachers encompassed by the research agree that their competencies can be improved through following professional literature. 41% of them think that teamwork can be a form of improvement of their competencies.

In the research dealing with self-evaluation of competencies for work with gifted children, carried out on the sample of 104 students of first and second level of higher vocational studies for preschool teachers (Nikolić et al, 2015) it was found that only 23% of students estimate that they are fully trained for work with gifted children, which confirms the need for professional development and additional education on this issue in the process of professional improvement of preschool teachers, not only within formal but also through informal and other forms of education and training.

Stojić and Banović (2019) emphasize that if the starting points in the educational process are interests, abilities, activities and creativity of a child, it is necessary to change the role of a preschool teacher. He or she no longer transfers knowledge according to a proscribed curriculum, but children learn what is meaningful to them, through the unity of experience and what they do. A preschool teacher has a task and a challenge to create conditions for each child to reach his/her full potential. He/she provides situations and conditions in which children learn from their own experience (Milutinović, 2011), through problem-solving, critical, analytical and creative response and reaction to a content. In other words, the role of a preschool teacher in kindergarten is not to teach and transfer knowledge, but to organize and lead the process of children's learning (Lalović, 2009).

A preschool teacher and a professional associate should know how to create provoking and encouraging environment for learning and development; they adjust expectations to developmental levels of children and their individual learning styles; they apply individual approaches to children in the process of educational-upbringing work; they follow individual development and progress of a child; they support child's initiative, intrinsic motivation for work and spontaneous creative expression; they respect initiative and freedom in the expression of thoughts, attitudes and beliefs; they are familiar with diverse forms of cooperation with family in order to ensure necessary support to child's development and they cooperate in organizing of exhibition of a variety of forms of children's creativity (Maksić, 2005).

For preschool teachers to support the optimal development of potentials and creativity of a child, it is necessary to have had initial education including special courses on giftedness, to continuously develop professionally in the field during their practice, as well as to have a possibility of free choice to work with a certain category of children according to their own affinities and capacities (Maksić & Đurišić-Bojanović, 2005).



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Professional development is a complex and long process implying development of a person in the scope of their professional role. It includes both formal and informal education, as well as constant self-evaluation and self-reflection. Professional development is a never-ending improvement of competencies aiming at higher quality of doing one's job, improvement of development of children, leading to influencing the level of their achievements. Professional development of preschool teachers is considered through reflexive practice, horizontal learning, connectedness and professional improvement (Velišek Braško, Nedimović, Mijailović i Sturza Milić, 2014).

Apart from the necessity to sensitize preschool teachers for work with gifted children and to educate them to recognize children's potentials during formal schooling, it is also important to help them develop motivation and competencies for their own professional development management. Search for professional literature, attending seminars and gatherings and conferences, as well as other forms of education, possibility to present results of one's own practice refer to a whole range of professional development which should be documented for the purpose of self-evaluation and external evaluation. Certain general issues for considering one's own professional philosophy could help in this sense.

Professional Development Documentation – review and action

As it has already been pointed out, it seems that during their initial formal education, preschool teachers have not had many opportunities to learn and become empowered in the field of identification and work with gifted children. Inclusion education was almost exclusively dealing with support for children who have developmental difficulties. Such a trend has continued during other forms of further professional development and work practice in preschool institutions.

Building their professional practice preschool teachers have recognized this shortcoming and mostly self-initiatively researched available literature and materials dealing with giftedness in children. Preschool teachers interested in the field have chosen professional development seminars and courses which in their programs aimed at the development of children's creativity, logical thinking, resourcefulness, physical dexterity and the like.

Starting from the theory that the practice of upbringing and education is complex, changing and not possible to be fully anticipated, it can be said that the very role of a preschool teacher is no less complex. A preschool teacher is constantly faced with new questions and challenges to be resolved in accordance with beliefs, knowledge and skills, through reflexive reconsideration of theory and practice in a given context (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja*, 2019).

One of the important roles a preschool teacher plays refers to their professional development considered according to reflexive practice, horizontal learning, networking and professional improvement. Searching for professional readings, attending professional seminars and professional congresses, conferences and other forms of education, preschool teachers develop their affinities and recognize the fields they want to develop.

Preschool teachers are obliged to document their professional development at the level of the institution and to apply the acquired knowledge in their work with children. Such a form of documenting serves mostly for external evaluation. There are various suggestions how a portfolio of a practitioner should look like. A good example of a portfolio is the one that serves a preschool teacher for his/her self-evaluation. Preschool teachers create their professional portfolio self-initiatively and in their own creative way.

One of the forms of networking of preschool teachers refers to their engagement in professional associations aiming at supporting preschool teachers and reaching shared



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professional interests. Such networking has had a great contribution and opened up possibilities for presenting the results of one's own practice. Regularly organized professional gatherings contribute to building of practitioners' experience, serve as an acknowledgement of their work and help the link with those they recognize as ones who have similar interests. All this leads to a widening of cooperation and a higher level of quality of their work.

One of the forms of networking and horizontal learning is enabled by new technologies. Communication has become easily available with a large number of colleagues from the whole world via the Internet. Participating in the projects on the eTwinning platform is one of the forms of cooperation nowadays widely spread. The platform opens up possibilities for preschool teachers to create their own projects and invite others to cooperate.

Broadening cooperation and using new technologies preschool teachers have the opportunity to independently research and build their knowledge through the contents available to all. This is somehow good, but not enough.

There are many theories dealing with defining and understanding of giftedness. Difficulties, shortcomings and needs have been recognized. What preschool teachers need is unambiguous and practical content which would help them and empower them in the best way to plan and realize support for learning and development of potentially gifted children. There is a need for a higher quality of materials which would address the needs of a child in the time we live in. At the same time, preschool teachers must have in their practice available high-quality instrument helping them identify giftedness in children, as well as literature which will empower them in their further concrete practical work with children.

Personal professional portfolio of a preschool teacher



Photo 1. *Professional Development Portfolio*

Even though they are obliged to file and document their professional development and the lifelong learning process reflecting the improvement of their competencies, what we find in practice are various ways in which preschool teachers create their portfolios. There are different examples of what one professional development portfolio of a preschool teacher should look like and what it should contain. The experience of preschool teachers themselves has shown that a portfolio gains its full importance and plays its most purposeful role when a preschool teacher creates it according to his/her own needs and in harmony with his/her authenticity. The one who creates portfolio decides what its elements will be and how it will look like, having in



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mind that it is significant for each segment of a portfolio to have meaning for a preschool teacher personally.

The function of a portfolio is self-evaluation and external evaluation. With the aim of self-evaluation, a portfolio is a starting point and grounds for reflexive practice, documentation which serves as a base for analysis of one's own professional practice and development.

Appendix 1: An example and a suggestion of a structure and contents of a personal professional portfolio of a preschool teacher:

1. Professional (work) biography
2. Personal professional philosophy (an essay, subjective approach – gives an outline of standpoints preschool teacher's professional work is based on)*
3. Diplomas, certificates, verifications, proofs, rewards, thank-you notes
4. Articles, texts, reports, flyers (authorship)
5. Materials, photographs, planning
6. Professional development (working materials, guidelines, agenda of a professional convention, etc)
7. Planning one's own upbringing-educational work
8. Various programs (ecology, adaptation, Montessori, Reggio Emilia, Waldorf...)
9. Manifestations, field trips, visits
10. Activities and materials (children's products: statements, stories, anecdotes, drawings...)
11. Language production, projects (stories, lyrics, songs, presentations...)
12. Trainers/mentors (to preschool teachers, students, apprentices)
13. Team members, professional groups members
14. Professional association of preschool teachers (role, activities)
15. Self-evaluation*

Appendix 2: Questions for writing personal professional philosophy in the portfolio of personal professional development:

- ✓ How do I provide support to children in their learning and development?
- ✓ What are the ways to develop the program?
- ✓ Why do I work in this way?
- ✓ What do I want to achieve?
- ✓ Which methods do I most frequently use?
- ✓ How does what I do reflect on children?

Appendix 3: *Additional list of questions as a guide through reflexive practice and self-evaluation:

- ✓ What happened (a description of a concrete situation)?
- ✓ What do I think and how do I feel about it?
- ✓ What was and was not good about it (what I've done)?
- ✓ What was the reaction of a child?
- ✓ What could I have done differently? What do I think would have happened then?
- ✓ What do I plan to do about it?
- ✓ What will I do in a future similar situation?



Appendix 4. An extract from an essay on personal professional philosophy:

„My first experience with a gifted child (6 years old) who was able to add, subtract, multiply and divide multi-digit numbers, has provoked in me astonishing disbelief followed by great enthusiasm. I simply could not believe that even an adult was able to do this, in such a way, by heart, not to mention a six-year-old. The encounter with this child has completely changed my view on the capacities of a child and has driven a whole bunch of questions: How should I approach this child? Is it possible that I can help this child and how? How do parents see this gift and does a child go to some additional activities? Who should I talk to, who could help me as a preschool teacher support this gift in a child? Will I act properly in given situations? When does the child need support? And numerous others...

These questions initiated my further professional development and interest in the field of support to gifted children. Practice is a trigger of questions which cannot wait for theoretical answers – they demand actions, research through partnership relations”. A preschool teacher, SV.

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Note: Photo 1. Author Snežana Jocić, personal archive.



Professional development of kindergarten teachers in giftedness

Keyword Index:

Standards of competencies: descriptions of essential knowledge, skills and attitudes preschool teachers should have and demonstrate in their professional work. They refer to the following: a) Teaching and learning; b) Support for development of a child's and learner's personality; c) Communication and cooperation.

Lifelong learning and professional development: imply acquiring new and improving the existing competencies significant for the improvement of educational-upbringing work.

Personal plan of professional development: the plan of activities created by a preschool teacher for him/herself and according to his/her own professional interests in order to improve his/her professional practice.



4 Giftedness Identification and Encouragement through Integrated Approach

Marija Jurić

Socioemotional development of 3 to 6 year old children

” It is difficult to have the intelligence of an adult and the emotions of a child in a childish body.”

(Hollingworth, 1975; as cited by Vlahović-Štetić; 2008)

Understanding or socioemotional development of gifted children and recognition of their behaviour patterns, thoughts, feelings and the needs they have enables high-quality encouragement of socio-emotional competences in gifted children, empowering them for further successful and positive development in kindergarten, school and life (Leavers, 2003; as cited by Tatalović Vorkapić i Puž, 2018). A person who has the role of a kindergarten teacher or any person generally involved in upbringing and education of a child should bear in mind that he or she raises a child in every sense of the word, i.e. in the sense of „a whole” (Goleman, 2006; as cited by VanTassel-Baska, 2009); thus, socioemotional development has a special place in work with the gifted, together with its encouragement, having in mind that it has turned out that socioemotional competences are key competencies for a child and a learner to become a responsible and caring adult, both in subsequent education and career and in his/her own community and family (Durlak et al, 2011; as cited by VanTassel-Baska, 2009). However, a question is raised why socioemotional development attracts such attention having in mind that it is more similar to than different from the development of children from general population. There is a number of reasons. Before all, it should be underlined that emotional development is a foundation for intellectual and social development. Gifted children have high potential and exceptional ability for learning, but it is necessary for them to be emotionally stable and healthy so that they could fulfil their potential. Having in mind that gifted children have highly above average intellectual abilities, their environment automatically expects a child to be emotionally and socially developed in an above-average manner (Vlahović-Štetić, 2008). But it is the very unbalanced development (the so-called asynchrony) which is common in gifted children, or, to be more precise, disharmony between different aspects of cognitive, affective and physical development in gifted individuals (Morelock, 1992; as cited by VanTassel-Baska, 2009). One of the reasons is also conflicts, either internal or external, a child has precisely due to imbalanced development which creates the feeling of being different from peers and environment in general (Neihart, 2001; as cited by VanTassel-Baska, 2009), reflected in difficulties in emotional and social functioning in view of specific needs. Socioemotional challenges appear more often in the gifted because of the way adults behave towards gifted individuals (Neihart, 2001; as cited by VanTassel-Baska, 2009). This is why it is important to understand emotions and aspects of socioemotional development, along with the fact that gifted children, apart from thinking differently from their peers also feel differently (Piechowski, 1998). The same is suggested by Mendaglio (2007) in the sense of higher level of intellectual development in the gifted which makes them have stronger feelings, due to the fact that they



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perceive more pieces of information during interactions which influence the intensity of their emotions, both positive and negative.

Emotions paint our lives, they are direct reactions to experience, motivation driving us to act and key regulators of our behaviour. They influence attention, decision making, learning and memory, quality of relations, body and mental help, as well as productivity and creativity. The capacity of gifted children to find solutions to emotional and social problems can be described within emotional intelligence (Goleman, 1997) which is at the same time the basic concept socioemotional learning is based on. Emotional intelligence implies the ability to recognize, perceive and express emotions, understand and regulate emotions, as well as the ability to behave in an appropriate way. Before emphasizing the specific features of socioemotional development of gifted children, it is significant to mention characteristics of socioemotional development in the age from third to the end of the sixth year regarding regulation, expression and management of emotional relations. At the age of two and a half years language is a means which regulates emotions. This period is often permeated by outbursts in child's behaviour, i.e. tantrums due to physical independence leading to powerful emotional states. At the same time, attachment to parents prevails until around the third year, provoking increasingly more frequent emotions like anger and fear, as well as sorrow, but to a lesser degree. Emotions are used in play more and more often in pretend games involving emotion of the characters. At the age of around three, children are inclined to imitate emotions and emotional states of others. What is developed in the period between the second and the third year refers to the increased and clearer insight into emotions of others, persistence, greater emotional control, as well as the awareness that false expressions can lead to a false conclusion about emotional state of others. From the fifth year on, children develop ability to regulate emotions related to self-awareness, followed by autonomy in relation to parents when regulation of emotions is in question. Due to more expressed self-awareness, children are inclined to revise and correct their emotions in front of peers so that they can be accepted and interesting to their peers. At this age, with regard to management of emotional relations, children increasingly more understand the emotional scripts reached through a consensus and use social schools in order to manage their own and emotions of others.

In the period between the second and the third year, according to Eriksen's theory of psychosocial development, the phase of development of autonomy is significant, especially referring to shame and embarrassment when a child becomes aware of him/herself, as well as of rules and limitations. It is important for a child to develop self-control in parallel with language and movement development. The phase of establishing autonomy in regard to self is important in the period between the third and the sixth year when moral development appears, including acceptance of authority and life rules. Cross (2011) points out the importance of the stated phases and resolution of crisis in preschool children so that it would not happen that the unresolved crises decrease the probability for a child to be identified as gifted.

The gifted undergo the same developmental phases as others, but in a different way, thus creating a different self-image (Roeper, 1982; as cited by VanTassel-Baska, 2009). An important characteristic of emotional development of the gifted is that it is usually behind the intellectual, meaning that gifted children emotionally react similarly to children of their own age (Vlahović-Štetić, 2008). This leads to numerous misunderstandings and unrealistic expectations from gifted children to be emotionally and socially mature, since they are cognitively more advanced than their peers. Nonetheless, it could be said for gifted children that they are emotionally richer than their peers having in mind that they have "antennas" in emotional fields – they learn to read and understand „body language" and the emotions expressed in someone's voice rather early. They are inclined not to bother others with their



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feelings avoiding being seen as „weird” or being laughed at. On the other hand, they can excessively identify with the sufferings of others so that it sometimes seems that they suffer more than the victim. Gifted children are inclined to think that feelings should have certain logics, and they are confused when feelings are contradictory and not in accordance with a given situation (Vlahović-Štetić, 2008). The already mentioned disharmony (asynchrony) is reflected in difficulties in socialization and behaviour, and emotional difficulties are mostly result of the relation with the environment. A question imposes itself what could cause asynchrony. Some of its sources refer to the following: emotions (emotional sensitivity, intensity and self-regulation), personality (personality features, perfectionism, values, moral development), environment (unsupportive environmental influences, non-recognition of potentials, the lack of learning opportunities) and special needs (sensor, motor, specific learning difficulties). In order to better understand disharmony, it is necessary to point out specificities and certain socioemotional characteristics of gifted children.

Polish psychiatrist Kazimir Dabrowski (as cited by Heller, Monks, Sternberg & Subotnik; 2000) suggests that the gifted are exceptionally sensitive due to their emphasized awareness of environment and great capacities for responses to intellectual, emotional and physical stimuli. The gifted experience the world differently and hypersensitivity and emphasized awareness appear as a response to environment in the sense of positive connotation. In his theory of positive disintegration, he talks about five fields of hypersensitivity due to an imbalance between cognition and emotions. These are the following: 1) **Intellectual awareness** reflected in “hunger” for knowledge, endless questions, great curiosity, active mind as a constant desire for learning, enjoyment in mental challenges and riddles, as well as meta-analysis. It is also recognized in sensitivity to colour of tone in speech and language expression, passion for details, detailed planning; 2) **Emotional awareness** results in excessive excitability in the sense of powerful and strong feelings, intensive anger, since if any emotion is additionally emphasized, children can be sensitive to the moods of people around them, e.g. they can more intensely react to tiredness or nervousness. Also, what also stands out is unusual excessive empathy and compassion they experience, strong connection with people or animals, they cannot forget themselves easily if they hurt other people’s feelings, emphasized self-criticism, they worry about petty mistakes; 3) **Imaginative awareness** is recognized in high creativity, and day-dreaming, i.e. gifted children seem a bit absent, being in their own world, often have imaginary friends they talk to, like to invent new games, and their reactions are often theatrical; 4) **Sensory awareness** can appear in the field of smell, taste, hearing, sight and touch (they are inclined to remove a label from their clothes, their shoes are often not comfortable). They are characterized by excessive sensitivity to noise, a subtle sense of taste in the sense of being amplified, taste intensiveness and food texture. Gifted children are often oriented to aesthetics; 5) **Psychomotoric awareness** is recognized in being energetic, in fast speech, thoughts and reactions, in the need for movement, reflected in the sensitivity of neuro-macular system, which is important to differentiate between attention difficulties and ADHD.

What is important to point out is that more intensive reactions do not necessarily mean emotional immaturity and it is crucial for kindergarten teachers and other associates involved in upbringing and education to have this mind and understand a child’s needs. Pechowsky (1986, as cited by VanTassel-Baska et al, 2009) points out that the five stated fields should be considered insights into how a gifted child experiences the world. When a channel or a field is more pronounced than in the case of peers, a child can feel ashamed or guilty for being different. Piechowski (1998) suggests certain characteristics of emotional reactions of gifted children: being unexpectedly overwhelmed by different feelings so that a child wants to laugh and cry at the same time, as well as the moments of imbalance, alienation, dissatisfaction with oneself,



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inner anxiety, the sense of unreality, tension and despair. Piechowski and Dabrowski (1986, as cited by Mayer, Perkins, Caruso i Salovey, 2001) mention the notion of emotional giftedness including greater ability for empathy, justice, sensibility to moral issues, ability to be aware of one's feelings, to make difference between feelings and create better and deeper relations. They state that the notions of emotional giftedness and emotional unadjustedness seem to overlap. Apart from awareness, gifted children often have fears similar to those of older children, but they do not know how to cope with those fears like older children can.

Gifted children are different from their peers in an intensive focus on what they are doing. We are talking about flow, mental state of being fully engaged in an activity, field or subject which is reflected in intrinsic motivation, joy, self-actualization and success in activity process. While a child is absorbed by something and deeply sunk in an activity, he/she loses the sense of time (time goes by and the child is not aware of it). For example, a child can play for hours creating constructions with Lego blocks on the carpet. It is important to pay attention to the optimal level of awareness in tasks for gifted children because of their high competences; if not they will get bored (Csikszentmihalyi, 1990; as cited by VanTassel-Baska, 2009). Boredom is a frequent problem in the case of gifted children, especially if the tasks are not challenging enough. Even at an early age, gifted children have unusually well-developed sense of justice and righteousness, i.e. sense of equality (e.g. a boy shares candies one for each child, and another boy takes more than one from the bag or a girl who wanted to protest against waste disposal near the place people live). Furthermore, gifted children can have a better understanding and control of emotions, but they do not have to show appropriate social behaviour. Generally, they have emotionally better vocabulary as well as an advanced sense of empathy as early as the age between five and seven (e.g. they give toys to children who did not get any for Christmas or a five-year-old girl who cries inconsolably because she has seen a funeral and last farewell of a musician on TV).

Unusual ability to feel compassion and empathy can make gifted children vulnerable to other people's feelings or misfortune and kindergarten teachers mustn't associate this with emotional immaturity. It is important to work on emotional intelligence since it has been proven that individuals who are highly emotionally intelligent on the one hand can perceive, understand and manage emotions and on the other hand use emotions for improvement of life quality (Mayer et al, 2001). Gifted children might strive for perfectionism, and thoroughness and they pay special attention to details. It has been estimated that the proportion of perfectionism in the gifted is around 70% and that about 26% of the gifted have dysfunctional perfectionism which can be a reason for failure (Ablard & Parker, 1997). At an early age, gifted children are often frustrated due to imperfect motor performance as compared to what they have expected from themselves (e.g. in visual arts or some other activity). For example, it has frequently been noticed that during colouring activity a child misses the line and understands that this was not good or, for example, when playing with construction blocks when a child is supposed to put two pieces together or stuck a block into something, he or she is simply not able to do this precisely due to undeveloped fine motor skills, and this is when instantaneous anger and frustration appears, leading to possible quitting. An excellent example is a four-year-old boy who learns to skate with his father but leans backwards because he is not able to keep balance. After his father gets him and helps him not to fall and shows him how it should be done, a child started crying and saying he does not want to skate anymore. So, we are talking about a typical example of giving up due to imperfect motor performance even though a child in theory understands what should be done.

What is important to emphasize is that when drawing or colouring, if a child is not satisfied, he or she will ask for a new piece of paper because they do not want to draw on the other side or



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erase what they have drawn; they are also sensitive to a wrinkled paper, a paper with a line on it or too dull crayons. Perfectionism is positive for a child if he or she understands his/her abilities and knows what he/she can do, but if a child strives for success and his/her abilities are not in harmony with the demands, a child can develop a fear of failure. Some signs of dysfunctional perfectionism are: fear of failing, excessive precision, constant seeking for approval, emphasized self-criticism, and refusal to try because of the fear of failure. Consequently, the gifted are often inclined to do something only to a degree which is correct in spite of their great abilities, so that they would not expose themselves and experience failure (e.g. a girl is not good at putting together jigsaw puzzles and she refuses to play with them).

Gifted children often set high standards and become frustrated when they cannot fulfil them, which can result in outbursts in behaviour. It is extremely important to make it possible for children to make small „mistakes or failures” in a group in a safe environment, thus orienting development towards excellence, rather than perfection. It is important to encourage a child and praise him/her for the effort they made, rather than the ultimate outcome. At the same time, it is significant to encourage a child and make him/her realize that he/she can allow him/herself to make a mistake since they enable learning and development. This is a subtle difference parents, preschool teachers and other adults involved in upbringing should encourage and nurture, always having it in mind when working with gifted children.

Along with intensive emotions, gifted children at an early age also show an unusual sense of humour, reflected in play with words and reaction to jokes (e.g. a boy at the age of a year and a half is joking with his mother playing and pretending that he will put a toy into her juice and the mother reacts to this, while a child teases her repeating his movement and laughing. Of course, the child does not actually put the toy in mother’s juice but enjoys laughing and teasing). Wideness of their knowledge helps them perceive different instances faster than their peers. Humour is moving from visual to verbal at preschool age (play with scary worlds and riddles are rather popular then). At school, humour helps them as self-defence from self-humiliation and they are inclined to become „a clown in the class”. Gifted children who are inclined to hide their potentials are often identified due to their reactions to jokes, i.e. their humour revealing their giftedness in these situations, which is a good indicator for persons involved in upbringing and education. At an early age, gifted children enjoy reading books for older children, while they are completely absorbed in the activity. They can be frustrated because their peers do not express interest in stories or cartoons, they read or watch, i.e. those that are exciting for them. Certain children can resemble book collectors, always putting books back in their place (e.g. a boy at the age of three puts books in his Lego box saying that it is his library). They are also inclined to go to a library and choose books they want to read. What is interesting is that they enjoy the intonation and emphasized tone of voice during reading. Heller (2000; as cited by Tatković Vorkapić & Puž, 2018) points out that gifted children are disposed to taking risks, they are more sensitive to expectations and feelings of others and often at early age express idealism and sense of justice. They are inclined to help others; they want to volunteer. For example, a boy at the age of three is walking around the town and when he sees a piece of paper on the pavement, he picks it up and throws it into a bin, asking why somebody threw it on the pavement.

Apart from specific emotional needs, challenges in socialization of gifted children should also be dealt with. It can be generally said that social development requires knowledge and understanding of norms, rules and values of the community an individual lives in, as well as mastering the skills necessary for efficient interaction within this community. It could be said that a child who is successful in this has developed social competencies. Some general social needs are the following: safety of one’s home, unconditional love of at least one parent,



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close friends and peer group, being accepted, interests, rules and limitations. Even though gifted children are generally socially more mature, there are certain specific fields in the process of their social development. One of the more important ones is the issue of finding close friends.

At early age gifted children show interest in playing with older children, having in mind that they master the rules of a game and structured game rather early (e.g. a problem with peers might appear when a gifted child explains the rules to a peer who does not understand them and prefers free play). They are equally drawn both to toys for girls and those intended for boys. A network of friends is also important having in mind that at an early age gifted children prefer company of children a bit older than themselves or even a couple of years older since they are at the same developmental level; therefore it is not surprising that they have a concept of friendship different from the one of their peers (Gross, 2002). However, difficulties with younger children can result from the differences in abilities in comparison to peers. For example, a child is looking for a friend to share thoughts and feelings, rather than a partner for a game.

Powerful connectedness is expressed even at this early age and they are disposed to have one or two friends, rather than a group of them, while their peers strive for more friends. Due to the lack of closeness they can often be hurt by the environment so their defensive mechanisms can take a form of fear of closeness. It is important to encourage them to get connected with others, since these emotional difficulties can be manifested as despondency, the feeling of being unaccepted and unloved, overwhelming emotional reactions event to the least of failures (Nugent, 2000; as cited by Vlahović-Štetić, 2008). Gifted children can have difficulties in relationships with others because of their perfectionism, loneliness, and disagreements with others. Orange (1997, as cited by Tatalović Vorkapić & Puž, 2018) in his research estimates that even 20-25% of gifted children and adolescents have social or emotional difficulties (loneliness, lack/loss of a friend due to acceleration or being involved in a great number of extracurricular activities, disagreement with the actions of other children, accusations, their role of a leader is simply expected in advance even if they do not want it, in their group of peers their relations are more often characterised by “popularity” than by friendship, etc. (Lewis & Doorlag, 1987; as cited by Vlahović-Štetić, 2008)) which is twice as much as what we find in the normal population of school children (Fornia & Freme, 2001; as cited by Tatalović Vorkapić & Puž, 2018).

The gifted who are recognized by their teachers show less behavioural difficulties and have a greater self-concept. When talking about social comparisons, at early age gifted children are not compared with their peers, but with previous experience. Only at the age of around seven, there is a shift in the reference point of comparisons, moving from oneself to norms. For example, at school, they will compare reading, writing and maths with others. Gifted children are often inclined to have a dilemma related to a forced choice in the sense of being accepted by their peers and manifesting their abilities and talents. In the research dealing with children at the age of 6 and 7, preschool teachers have been asked how gifted children react to new activities or social situations, and they were offered four descriptions: *involved* (children who get involved in new activities in a fast and positive way), *adaptable* (children who „go” with the group, but are rarely initiators or leaders), *those being alongside* (children who wait to see how new activity will develop and join step by step) and *those who do not participate* (children who are indifferent towards new activities or have had negative attitude towards it for weeks and months). Preschool teachers were also supposed to evaluate intellectual abilities of children. It was found that the children who get engaged in activities were evaluated as intelligent by their preschool teachers. However, when the children were identified by a psychologist, it was found that gifted children were those belonging to the „category” of children who were standing



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alongside or who adjusted to the group. The gifted are skilful in adjustments to a group they belong to (Gordon & Thomas, 1967).

The gifted need help and support from kindergarten teachers/school teachers so that they could have a feeling that they do not have to choose between development of their potentials and acceptance by peers, since this choice causes intrinsic turbulences in their striving for addressing their needs. What is important to them is the sense of autonomy, they often have “a problem” in relation to imposed authority, leading to occurrence of problems in establishing relationships with adults, either parents or kindergarten teachers. Gifted children are generally more inclined to introversion and are intrinsically motivated. As compared to their peers they understand to concept of mortality much earlier, they show interest in the concept of being mortal and the natural process of a life time should be explained to them. Special attention should be paid to potential risks zones at early age, having in mind that other children do not enjoy in complex activities like gifted ones. Furthermore, the gifted are advanced in the field of language development, they understand relationships better and prefer groups of older children for socializing.

Connectedness with others should be incited and encouraged and this might be one of the reasons why a child attends an older group if he or she has been identified as gifted. Studies dealing with the relation between socioemotional wellbeing and positive thinking in gifted children (especially preschool children to the age of seven) are rather scarce in the world. However, research conducted in Croatia (Tatalović Vorkapić & Puž, 2018) on the sample of potentially gifted children aimed at contributing to better understanding of socioemotional wellbeing and positive thinking in gifted children. Preschool children identified as gifted have shown significantly higher levels of assertiveness, enjoyment in research and being task-oriented, unlike the children from the control group. Kindergarten teachers hold that gifted children have higher motivation for *Enjoyment in research*, they love to investigate new things and ask questions, they are eager to learn and research independently, they like to try new things, and they are very curious and oriented to new things and new tasks. Another closely related category is *Task-oriented*, where a child is engaged in a task very fast, he or she works on the task independently, fast, carefully and precisely and if the task is in the field of his/her interest, he or she can stick to it and be engaged in the activity for a very long time fully concentrated, persistent in mastering challenging or difficult tasks. In regard to positive thinking, it was found that gifted children have significantly more chosen responses in the sense of lower degree of comprehensiveness in bad events and higher degree of comprehensiveness in good events, which is, according to the theoretical model and attribution style operationalization an indicator of positive thinking. Having in mind that these are those dimensions of socioemotional wellbeing which are more oriented towards cognitive aspect of children's development, the finding is logical, but caution is needed in generalization, due to relatively small sample and evaluation procedure.

Kindergarten teachers should bear in mind that a gifted child is, before all, a child. The stated socio-emotional characteristics of the gifted should not be understood as categories and children should not be classified within these categories. Since each child is an individual, there are no two gifted children who are the same. Gifted children do not want to be special, but they want to do something special. Therefore, the described socioemotional characteristics of the gifted should be seen as insights into how to address the needs of a gifted child in the best possible way, and the needs of the gifted can and should be addressed. In other words, an important way of considering the needs of the gifted is through a prism of behavioural patterns which can be „translated” into educational needs which kindergarten and later school should and can nurture and resolve (VanTassel-Baska, 1998). Adults in the role of kindergarten



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teachers or role models, in general, should realize what gifted children need, how to use information they have about children in the best possible way leading to the well-being of a child and what they as adults need in the sense of knowledge and skills in order to respond to specific needs of the gifted. Finally, kindergarten teachers and teachers play a decisive role in creating passion for learning and encouraging development of skills in order to raise good people who will be able to use their potentials and competencies and change the world.

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Keywords index:

Emotions – relations of a person towards an object or events including both mental state and emotional expression.

Socioemotional development – developmental process oriented towards social interactions with others and recognition, expression and regulation of one's own emotions and coping with emotions of others.

Innovative approaches in encouraging giftedness in children from three to six years

A guide for experts in education and parents



Giftedness Identification and Encouragement through Integrated Approach

Intensity/being overexcited – excessive and overwhelming feeling in emotional, cognitive, sensory, imaginary and psychomotor fields in the sense of strong reactions to stimuli, but with a positive connotation.



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Aleksandra Marcikić

The importance of the physical environment for child movement research activities

We agree that the child's physical environment means that the space provides opportunities for different sensory experiences and activities of movement exploration, that it provides opportunities for different ways of moving, using your body and exploring with your body (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja, 2019*).



Photo 1. *Stimulating furniture for motor activity*

Games and outdoor activities in nature, as well as the daily use of open space for various activities, games and research, imply a challenging space, based on natural materials. „The outside space should enable children to construct, change and build; to feel safe in it, but that they are attracted to it by challenges, such as hiding spaces, a space with unstructured and semi-structured that provoke the possibilities of various kinaesthetic and sensory experiences and activities and practical manipulations. To be able to use such a space in an active way and in different weather conditions, the kindergarten teacher should have in mind that adequate clothing and footwear are needed for children.” (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja, 2019: 34*).



Photos 2, 3 and 4. *Use of the outdoor space in various weather conditions with adequate footwear and clothing*



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Photo 5. *Sensory path in the kindergarten yard*

Moving, running, jumping, spinning, climbing, hiding, thinking, connecting information, walking on slopes, staying in nature, and on playgrounds are all of the special importance because in early childhood it ensures connecting important regions of the brain. With the absence of key elements that stimulate brain development, reduced stay in nature, and reduced overall movement of children, we can expect changes in the brain structure of new generations. This is exactly what research shows, where we can clearly see the reduction of certain structures of the cerebrum, which can negatively affect the cognitive development of children (Rajović, 2019).



Photos 6 and 7. *Children playing – climbing at the playground*

Gifted children obviously have developmentally advanced abilities for various forms of movement, coordination, balance, precision, speed, flexibility, strength and endurance. Timely support of the child's motor potentials provides a basis for later monitoring of progress in the development of these abilities (Božović, 2018).



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Photos 8 and 9. *Balance*



Photo 10. *Games with water, pouring*



Photo 11. *Games with polenta – unstructured material, pouring*

By organizing games, kindergarten teachers encourage the motor potentials of a gifted child. Traditional games, hide and seek, marbles, games with balls, jump rope, Chinese jump rope, hoops and other outdoor games encourage gifted children to develop motor potentials. In this way, kindergarten teachers provide security for gifted children and encourage them to accept challenges in physical activities, taking care of their health and safety.

Materials and tools for sensory experiences of a child

A variety of games encourage the ability to make precise small hand movements while maintaining good coordination between the fingers and the eyes, some of them are: pouring sand, water, salt, polenta, rice or beans using bowls, tubes, spoons, rolls, strainers, etc.

By actively participating in games of classification of small material for the „tweezer” catch – sorting small objects of interesting materials and textures such as pebbles, shells, chestnuts, pasta, etc, children develop small hand muscles and creativity.



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Photo 12. *Arranging pebbles, chestnuts*



Photo 13. *Arranging pebbles*

Inserting small objects such as metal coins or buttons into a money box, balls into a box with holes, into a bowl or bag, lacing through holes in paper, games with dough, mud and clay involve activating the small muscles of the fingers and hands, pressing, stretching, rolling, pounding, squeezing, pinching, pressing, etc.



Photo 14. *Pressing chestnuts into a dough*



Photo 15. *Shaping dough into worms*

Stringing beads, but also small pierced pasta on sticks, twine, shoelaces, etc., cutting with child scissors, opening and closing the scissors strengthens children's fingers, hands and arms.



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Photo 16. *Stringing New Year's decorations on a rope*

Supporting a child to unbutton and button the buttons on his/her own is certainly important for strengthening the muscles of the fingers and hands, as well as for strengthening his/her confidence.



Photo 17. *A child is buttoning buttons on her own*

The kindergarten teacher in building a real programme in the kindergarten certainly has in mind that the physical environment (space-time organization) directly shapes the position of the child in the programme. Relationships that arise from the physical environment and at the same time shape the physical environment form the immediate learning environment. „Space is by no means something given, independent of the programme, but reflects most directly and concretely the concept of the programme. This knowledge serves the kindergarten teacher to pay special attention to the space inside and outside the kindergarten, its constant restructuring, design, development, enrichment with materials and resources.” (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja*, 2019: 32)

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Note:

- Photos 6 and 7 were taken by kindergarten teacher Nela Dujić, PI “Poletarac”, Odžaci.
- Photos from 1 to 5 and 8 to 17 were taken by kindergarten teacher Aleksandra Marcikić PI „Mladost” Bačka Palanka .

Keywords index:

Physical environment – materials and tools for sensory experiences of a child.



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Miran Muhič

Motor Creativity

Virik (1968, as cited by: Sturza Milić, 2014: 81) suggests that motor creativity is the ability to create numerous and original motor responses to stimuli. Most of the known concepts of motor creativity are based on Guilford's theory and divergent factors of production, including abundance of ideas, originality and flexibility. In modern western societies majority of children live in urban environments, without free access to open space and possibilities for motor play, overprotected by their parents who drive them to school and play with them in closed spaces. All this leads to greater connection between children and ICT, resulting in children becoming less active, which in long term means decrease in their creative thinking.

Regular physical activity is necessary for normal growth and development of children, especially in early childhood, when learning with a whole body and movement is the main part of children's learning. Physical education in early childhood is an ideal period for nurturing of healthy lifestyle and positive attitude towards physical exercise and movement and can be a link connecting child's need for motor play and creative expression and formal approaches to learning in kindergartens and schools. In 1981 Vygotsky indicated that the care for motor development influences creativity and that one process can be developed through another (Ourda, Gregoriadis, Mouratidou, Grouios, & Tsorbatzoudis, 2017: 23).

Bournelli (1998, as cited by: Dominguez, Diaz Pereira and Martinez-Vidal, 2015: 584) in his work also states that creativity can be improved through physical education and upbringing. Learning is more efficient when children give meaning to something and they construe meaning through experimenting, asking questions and finding solutions. Representative result of motor development and creativity is motor creativity, which can be described as an inclination of a child to create movements enabling solution of motor problems (Ourda et al., 2017: 23). Renzulli (1994, as cited by: Sturza Milić, 2014: 81) considers that motor creativity of children is scarcely researched, even though it is thought to be one of the most appreciated human qualities. It is common knowledge that children are naturally creative, but creativity depends on the environment and intrinsic motivation. Sturza Milić (2014: 81) emphasizes that decreased physical activity has negative influence on life quality. Failure in the promotion of motor skills can lead to decreased motor creativity, and generally to a child's deteriorated development.

Pepler and Ross (1981, as cited by: Trevlas, Matsouka, & Zachopoulou, 2003: 536) believe that play has a positive effect on responses of preschoolers to creative tasks and that it serves as a foundation of our understanding of children's creativity and importance of play for children. When we observe children playing, we can notice that they are more flexible and imaginative than during other activities. This is the very reason why play is so important for encouragement of creative thinking in children (Trevlas et al., 2003: 536).

Identification of Motor Giftedness in Children

Rajtmajer (2011: 5) defines identification of motor gifted children as subjective observation of child's activities through assessment carried out objectively by a great number of assessors according to the standards in the form of centile norms for individual motor abilities. Centile norms can precisely determine the motor status of a child, but there is a problem in the interpretation of these data since they can be unreliable if sport and cultural



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environment of an individual is not taken into consideration. For this reason, the author suggests the involvement of all children in more intensive physical activity, but not before administering tests and checks.

Gifted children can be identified according to three methods suggested by Glogovec and Žagar (1990: 14–15): *intelligence tests* showing IQ of 130 and higher, even though certain authors claim that on the one hand the level of coefficient is set rather high and on the other hand the influence of creativity is not taken into consideration. Less stimulating environment, currently interfering with child's development which can otherwise be rather progressive with encouragement is also a limiting factor in determining one's IQ; *creativity tests* measure divergent ability: *fluency* (ability to discover a great number of ideas), *flexibility* (ability to reveal a variety of ideas), *originality* (ability to invent new, unusual ideas) and *elaboration* (ability to elaborate ideas into details); *observational techniques* serve for noting down child's abilities and special features. They are used mostly by parents and, of course, kindergarten teachers. It should be once again emphasized that it is necessary for those observing a child to have knowledge on motor development of a preschool child, since it is only then possible to establish developmental-motor status of a child, according to the analysis of deviations.

Logar (2010: 155) points out that tandem work or mutual cooperation between a kindergarten teacher and kindergarten teacher assistant is of decisive importance for the efficient identification of talented children and subsequent work with them in kindergarten. Cooperation enables observation during implementation of activity, exchange of what has been observed, making agreements and planning work, small groups work, child's social interactions and evaluation of the work with the child.

Porter (2005: 4–5) suggests that the problems in identification process in preschool period can occur due to uncoordinated development of a child. It can be the case that a child is developed only in certain fields. Also, there are often great expectations imposed on kindergarten teachers who in turn do not offer children enough challenges through planned activities so that they can show their advanced abilities. Lack of experience in a certain field can also lead to inaccurate indicator of ability level and in case of certain children potentials are hidden due to emotional immaturity. Demonstration of above-average abilities makes it difficult to maintain longer concentration and focus on activity.

In identifying motor gifted children kindergarten teachers can use a questionnaire created by Krafft and Semke, as well as Guilford's model which resulted in TCAM. Krafft and Semke's questionnaire (2008) includes twelve questions for parents and five questions for their children. The results obtained according to the questionnaire indicate potential motor talent of a child as compared to his/her peers. Guilford's model (see more in: Marentič & Požarnik, 2000: 91) defines three components of divergent thinking: *fluency* – ability of an individual to produce numerous ideas fast (Guilford defined fluency as an ability to discover a great number of solutions); *flexibility* – fast change of perspective or aspect of solving a certain problem or fast change of work method and strategy; *originality* – ability of an individual to search for new, rare, unusual solutions. According to this model, Torrance (1981) developed TCAM (Thinking Creatively in Action and Movement) – the test of motor creativity. Zachopoulou, Makri and Pollatou (2009: 325) have in their research revealed that TCAM test is a valid and reliable instrument which can be used for measuring creative movements in preschool children.



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The Role of a Kindergarten Teacher

Videmšek and Pišot (2007: 277–280) consider that the role of an adult or a kindergarten teacher is very important since it could be the one to offer suitable challenges, guiding them according to positive strategies opening up possibilities for all children to relaxedly participate in physical activities, without fear of failure or rejection. Gifted children have a lot of energy and experience things in an intensive and complex way, which could be seen as irritability by others. One of the priorities of a kindergarten is constant care for provision of encouraging learning environment. Every day kindergarten teachers face the situations when they do not know how to respond to a problem, or which approach to choose (Glogovec and Žagar, 1990: 19). Ferbežer (2002: 166–167) considers that, apart from parents, kindergarten teachers are the main factor of environment with a great influence on gifted child development. He points out that they therefore have to be familiar with motor characteristics and specific features of physically gifted children. The task of a kindergarten teacher in observing a gifted child is to notice characteristics and abilities of a gifted child. Observation can be carried out every day, preferably in a group, since group activities enable easier observation of above-average children (Ibidem: 171).

Videmšek and Pišot (2007: 102) state that each child deserves individual approach based on observations which in the field of movement imply before all, provision of appropriate motor stimuli. A child needs to build up his/her knowledge and skills while at the same time noticing his/her own progress. A child thus becomes intrinsically motivated and, if it is considered that ambition is one of the characteristics of motor gifted children, the child becomes additionally motivated in his/her desire to achieve greater progress, building a positive self-image and self-respect. At the same time, a kindergarten teacher who works with the child has to plan activities in cooperation with the child, has to establish successful communication and show respect. It is important for a kindergarten teacher to make a link between the planned physical activities and other fields of the curriculum through various forms of work, using different means and requisites.

It is desirable for children to be maximally involved in an activity which encourages them to notice changes in their bodies (Ibidem: 278–279). It is necessary to provide children with rich physical environment through which adults offer comprehensive, interesting and encouraging settings with new challenges. Activities should be versatile, numerous and equipped with a whole range of sports equipment. Consequently, it is needed to ensure gradually more complex motor contents from earliest age in different fields of development. Adults should be aware of children's curiosity and understand the ways children perceive, understand and imagine the world around them (Sturza Milić, 2014: 84).

Children learn many new things through activities related to their experiences. One of them is play, which is a foundation of learning. Children are active and learn in play. Influence of play reflects in motor, physical, social and emotional development of a child. In the field of motor development, play enables efficient development of a child and his/her motor abilities. At the same time, it encourages development of motor creativity which in the case of children occurs through play offering questions for which answers can be found only when a child is physically active (Pejatović and Sturza Milić, 2014: 117–118).



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Keywords index:

TCAM – Thinking Creatively in Action and Movement (Torrance, 1981).

Motor play – play connecting fields of motor skills with cognitive (perception, problem-solving, memory, attention) and conative (behaviour, emotions, motivation) fields; processes of functioning of organism with human social dimension.



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Ljiljana Kelemen Milojević, Sunčica Vuković

Language Play and Literary Texts for Encouragement of Giftedness in Preschool Children

Identification and encouragement of giftedness should be one of the main aims of kindergarten teachers' work with preschool children. In the works of numerous researchers (Furlan, & Kobola, 1971; Maksić, 1996; Vilotijević, 1999; Đorđević, 1999; Gojkov, 2008) it has been explicitly or implicitly pointed out that the importance of the gifted for the comprehensive progress and development of humankind imposes an obligation on those dealing with didactics and teaching methodology to research the possibilities of practising and developing giftedness and creativity in a variety of fields (Đorđev & Kelemen, 2015: 59). Having in mind that „the gifted will not always on their own find their way to fulfil their potentials if the environment does not encourage them (Gojkov, 2014: 3), this paper intends to offer theoretical standpoints on identification of giftedness in the field of language development, supported by examples of language play and literary texts enriched by language play from relevant literature, as well as language games and examples that have stemmed from practice and immediate work with children. Since a child is seen as a personality abundant in potentials, as an agent, a competent participant in their own learning and life (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja* [Preschool Curriculum Framework], 2018), and the starting points of contemporary didactics constructivistic theories within the constructivistic paradigm of learning according to which „enabling didactics” has an advantage over „teaching didactics” (Gojkov, 2009), the accent should be put on the process of enabling independent and active knowledge acquisition, encouragement of language creativity, rather than transfer of ready knowledge.

It is common to say for those gifted for language or linguistically gifted that they are eloquent. „Eloquent implies the features of the one who has high abilities to speak, who has an abundance of words at one's disposal, who can harmoniously organize and connect them so that what he speaks seems powerful and influential, and this is a gift for speaking” (Lalević, 2004: 687; Đorđev & Kelemen, 2015: 60). Speech of the gifted is characterised by picturesque language expression, logics and clarity of expression (Cvetanović, 2010: 130). Gifted children have rich vocabulary, and „due to the abundance of their vocabulary, they are often in the company of adults, and leaders in their peer group, skilful and resourceful in the struggle of opinion and various discussions and debates” (Grandić & Letić, 2009: 34). A gifted child loves to listen to stories and is able to grasp the actions of protagonists, creates different, distinctive and rare stories not imitating his/her peers or adults; he or she likes poetry, memorizes verses easily and shows „expressed interest in literature as an art” (Kamenov, 2010: 210–216). Speech of the gifted is fluent, clear and well-organized. Gifted children express themselves in full sentences, they play with words, creating new words with the intention to build analogies, metaphors, phrases to express „numerous, distant, unbelievable and unusual associations” (Đorđev, 2014: 101). The presence of gifted children in preschool groups can offer kindergarten teachers possibilities to carry out many language games and exercises, i.e., learning situations successfully. At the same time, it is essential to prepare suitable content for work with the gifted in order to further encourage their giftedness and interest in language creativity. What follows are the examples of language games and literary works according to which kindergarten



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teachers can recognize and encourage linguistically gifted children, while applying integrated approach.

Paradigmatic literary texts and conversational language games (excerpt from the papers: Kelemen Milojević & Đorđev, 2018: 168–178; Kelemen, 2016; Đorđev & Kelemen Milojević, 2019: 125–134). Paradigmatic language games comprise invention, poetic imagination and combinatorics (all of these have equivalents or start to develop as early as symbolic game appears), and are expressed through shortening (trimming) or extension of words, irregular grammar construction (irregular plural, inappropriate gender and case of nouns, omission of functional words – prepositions, auxiliary words, conjunctions): *luk = lukac; dani = danovi; nema = ne ima; ljudi = čoveci; psi = kucovi; lavovi, tigrovi, psi = lavi, tigri, pasi; neću = nećem; hoću = hoćem* etc (Translator's note: the given examples are from the Serbian language also appearing in the English language, e.g. child – childs, instead of children, doctor/doc as a noun used as a verb „Will he doc my tummy? etc). Paradigmatic language games are present in modern poetry and prose for children – in *paradigmatic literary texts*. A special group of these texts are lyrics containing play with aspects of formation of certain words (nouns), like neologisms or coined words. The lyrics of the poem *Pustinjska priča* [Desert story] written by Branko Stevanović (Stevanović, 2007: 55), are an excellent example of such a phenomenon: *Jedna stidljiva kamila / Kamilcu problem zadavala...* [One shy (cow) camel / made a problem to a (bull) camel]. In these verses, a poet is playing with the form of the word for denoting male representative of a certain animal (camel). The word *kamilac* (bull/male camel) is a neologism, made according to a regular word formation pattern existing in the Serbian language *žaba – žabac* (male – female frog). The neologism in question is not used in standard Serbian language, having in mind that the word form for both male and female camel is the same – *kamila*. Stevanović does the same thing in his poem *Pesma žirafa* [The Song of Giraffes] (Ibid: 59), in which a neologism *žirafac* [male giraffe] appears, which would be qualified by lexicographers as a word in children's speech. (t / n: what follows are original lyrics containing the neologism and will not be translated):

PESMA ŽIRAFAMA

Blago nama, blago nama,
Žirafcima, žirafama.

Žirafama, žirafcima,
s glavama u oblacima,
previsoko nikad nije
sočno lišće akacije!

Verses enriched by neologisms can be found in the poem *Mali oglas* [A Small Add] written by Dejan Aleksić (Kolarov i Stevanović, 2009: 37): *Buvac i buva dobili buvče / Hitno im treba dvosobno kuće...* [A male flea and a female flea got a young flea / They urgently need a two-bedroom dog]. In these verses, the poet uses words characteristics for children's speech, the name for male flea (*buvac*) and a young flea (*buvče*), according to the noun *buva*. These examples of poems are an excellent encouragement for inventing new neologisms which could be used for creation of non-nonsense poems, songs and stories in work with the gifted.

In regard to literary texts for children in which the writer is playing with grammar categories of verbs, a good example is a poem written by Radović titled *Gde je greška* [Where is the error] (Radović, 2012: 10). Through an emotionally coloured text full of sounds and rhythm, children can easily acquire grammar rules (t / n: the lyrics are not translated due to



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errors appearing in it typical for Serbian language – a wrong flexion (-u instead of -e) in verb conjugation for third person plural present tense):

GDE JE GREŠKA?

Slonovi ne volu
da ih noge bolu.
Kad se samo setu
i oni poletu
da ne idu peške.
I tu nema greške.

Gde je greška?

Ne kaže se VOLU
nego VOLE,
i ne može BOLU
nego BOLE,
i ne ide SETU
nego SETE,
i ne valja LETU
nego LETE.

Preschool children accept the poem as a riddle. Special attention should be paid to the verbs appearing in it and their third person singular and plural forms. Apart from numerous poems and songs for encouraging language creativity of the gifted, it is also desirable to use prose texts in which writers play both with the form and content of the words, along with the deviations from syntactic norms. In his story, *Izokrenuta priča* [Twisted Story] Branko Ćopić inverted the word order in sentences. Therefore, a kindergarten teacher can, having reached the explanation of the meaning of the story with children, transform the text into a logical one, inciting children to use regular forms of the words and also be creative in their use of language.

Conversational games in the function of recognizing and encouraging language/linguistic giftedness. Conversational games, adjusted to the abilities and needs of the children, awake awareness of the importance of speech as the basic human activity also serving to establish and maintain language communication (Pavličević-Franić 2005: 186). More intensive application of conversational games in work with preschool children contributes to “additionally engage children, especially gifted ones, acquiring characteristics of good speech and procedures for its successful use in communication and creative discourses” (Kelemen Milojević & Đorđev, 2019: 77). Interesting examples of conversational games are the following: *Razgovor s lutkom* [Talk with a Doll], *Razgovor s nestašnim medvedićem* [Conversation with a naughty little bear], *Razgovor s plašljivim zecom* [Talk with a Shy Rabbit], *Razgovor s ljubičicom* [Conversation with a Violet], and it is also possible to organize the following games: *Razgovor lutaka*, [Conversation of dolls] *Razgovor životinja* [Animal talk], *Kaži životinji iz basne* [Say something to an animal from the fable], etc. (Kelemen Milojević, 2021: 74).

Interactive literary texts for children as a form of conversational games. Interactive literary texts provide opportunities for the gifted to actively participate in creating a literary work and express themselves creatively. Possible interactive stories which could be used with



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this aim are the following *Čudan dan, skroz!* [A strange day, totally!] and *Giletov bicikl* [Gile's Bicycle] written by Igor Kolarov (Kolarov, 2010).

ČUDAN DAN, SKROZ! [A strange day, totally!]

Juče sam imao sasvim čudan dan. Otprilike, ovako...

Čim sam se probudio, ugledao sam jednu trouglastu pticu. Letela je u cik-cak, a onda je odletela. Odmah zatim, primetio sam kako jedan zeleni pauk džogira oko moje kuće. Mislio sam da sanjam, ali ne! On je uporno trčao, a ja za njim. Tako sam pretrčao sedam i po miliona kilometara. Kada sam se umorio, seo sam na jednu mirnu i lepu kornjaču. Kakva greška! Ispostavilo se da je to leteća kornjača! Uh, leteli smo bar 1012 puta oko sveta. Tada sam primetio još neke čudne stvari: ljubičasto more, glistu koja svira violinu, svileni helikopter, knjigu bez listova, nevidljivu tortu koju je celu neko pojeo (pa zato i nije imalo šta da se vidi), školu koja se gužva i baca kroz prozor, i slično.

[Yesterday I had a really strange day. It was something like this...

As soon as I woke up I saw a triangular bird. It was flying zigzag before it flew away. Immediately after I noticed a green spider jogging around my house. I thought I was dreaming, but no! He was running persistently, and I was running after him. So I ran for seven and a half million kilometres. When I got tired, I sat on a beautiful steady turtle. What a mistake! It turned out it was a flying turtle! Wow, we were flying at least 1012 times around the world. Then I noticed some other strange things: purple sea, a worm playing a violin, silk helicopter, a book with no sheets, invisible cake someone ate all (that's why it was invisible), a school crumpled and thrown out of the window and more.]

Šta mislite, šta sam još video? [What else do you think I saw?]

Tačno! Bravo! [Yes, it's true! Well done!]

Ipak... A odakle Vi to znate? [But... How do you know this?]

Interactive prose for preschool children includes elements needed for their development, especially for encouragement of creative imagination, as well as enough elements for language acquisition and proper speech development – acquiring and developing of morphological system. The stories “toys” can teach children to observe, listen, think, and resolve, aiming at developing better dialogue and language creativity (Kelemen, 2016). Vladimir Mihajlovski, describing the use of language play in work with gifted children at preschool age, points out the following preconditions without which language games could not be played successfully with children:

- a) All the children are potentially able, only their appropriate abilities should be developed;
- b) Efforts should be made to maintain continuous, regular and high quality organized work with potentially gifted children;
- c) Consistent use of a model of speech game within the main and final evaluation part of upbringing-educational activity;
- d) Individuality of a child should be permanently respected in order to build one's self-confidence in one's own strengths so that a child could be confident in his/her abilities and be able to gain personal faith;
- e) Free communication and comprehensive kindergarten activities should always exist and be practised in children of preschool age, not only between children but also with adults so that children could meet all the necessary conditions for their further success and development of their abilities (Mihajlovski, 2006: 57).



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What follows is an example of a paradigmatic poem created for the purpose of this paper, and which can be used in work with the gifted (the author of the poem is a kindergarten teacher, Sunčica Vuković, PI “Radosno detinjstvo”, Novi Sad; t/n: the poem will not be translated, but it is permeated by unusual and irregular plural forms of nouns denoting animals):

NA SELU KOD ČIKA JOCE

Na selu kod čika Joce
 video sam lepe ovčance. (ovce)
 Lajao je na sav glas
 njegov stari, lovački pasovi. (pas)
 A sestrice moja Sonja
 spazila je u galopu konjevi. (konja)
 Nečiji je rep ko metla
 mora da je od komšijinog petlovera. (petla)
 Video je miša, pa i nade tračak
 brkati i lenji, čika Jocin mačkonja. (mačak)

The games of rhyming, i.e., rhyming of words is a special form of speech creativity. These games can be created according to specific organization of certain lexical and syntactic games, and can be used in the work with the gifted: *Slažemo naša imena* [We put our names in order], *Tražimo par po imenu* [We are looking for a couple by name], *Sve ima svoje ime* [Everything has its name], *Svako nešto radi* [Everybody does something], *Svako ima govor svoj* [Everyone has his/her own speech], *Ja vama, a vi meni* [I give you, you give me], etc (Kamenov, 2010: 125–129; Kelemen Milojević & Đorđev, 2019).

Sve ima svoje ime [Everything has its name] (according to Dušan Radović). The game goes on by finding new words which rhyme:

Sve ima svoje ime
 žica
 ptica
 i lisica...

Ja vama, a vi meni [I give you, you give me] (according to Dušan Radović). In this rhyming game, the adjectives at the end of each verse rhyme:

Ja vam dajem nešto *kratko*
 A vi meni nešto *slatko*.
 Ja vam dajem nešto *žuto*
 A vi meni nešto *ljuto*...

The example of a rhyme game from practice (a complement or a counterpart to the rhyme game *Tražimo par po imenu* [We are looking for a couple by name]) whose author is Sunčica Vuković, a kindergarten teacher and a co-author of this paper, is as follows:

- a) Rhyming names with other words, i.e. nouns: Anja – manja, Lena – stena, Lara – bubamara, Vanja – Anja, Lazar – pazar;
- b) Rhyming animals, objects, phenomena, anything surrounding us: koza – roza, mačka – tačka, kuće – muče, krava – trava, muva – buva, vrata – tata, mama – dama, dete – mete, stolica – polica;



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- c) Rhyming names with nonsense words: Aleksa – traleksa, Andrej – pandrej, prozor – trozor, tepih – repih... in this way children realized that not all words can rhyme with other content words, i.e. words with meaning;
- d) composing sentences including rhyming words: Anja je od mene manja; Naša Dunja brza je ko munja; Iva nije ništa kriva; Moja koza nije roza; Bogdanovo kuće ne zna da muče; Jedno dete zna da mete; nonsensne rečenice: Krava je lepa trava; Naša vrata imaju malog brata; Anina mačka prede kao tačka... (Vuković, 2019: 138–144).

Encouragement of the gifted to create verses and poems with the help of literary texts. In their discovery of poetic function of language, the gifted can be helped by the verses of poets known to children, offering models suitable for further elaboration in a number of ways. It is certain that in poetry for children everything is based on repetition. Using repetition children, and especially gifted children, are able to invent and articulate interesting verses (Каменов, 2010: 119; Kelemen Milojević & Đorđev, 2019) and follow a model or a pattern:

KAKO SE IZMIŠLJAJU PESME [HOW POEMS ARE INVENTED] – Dušan Radović

For example, about a little black cat:

Mačka [a cat]
 Mala mačka [a little cat]
 Bela mačka [a white cat]
 Mala bela mačka [a little white cat]

or:

Mačka [a cat]
 Mala mačka [a little cat]
 Ljuta mačka [an angry cat]
 Mala ljuta mačka [a little angry cat]

In such a poem, instead of the word cat, other words can be used, like, e.g: *ptica, lopta, pčela, pas, miš, guska, lasta, golub* [a bird, ball, bee, dog, mouse, goose, swallow, pigeon], etc. Words repeating in a certain rhythm are a good encouragement to children to invent something similar according to the structure of the model, adding new contents, changing a detail or continuing what was begun.

Verbal syntactic games. Verbal syntactic games are drama plays, i.e., language plays with certain rules using drama strategy in order to acquire a whole range of abilities and skills (communication skills, trust, imagination, concentration, oral and listening skills, cognitive capacities, teamwork...). They do not require prior experience, but they contribute to identification and encouragement of the gifted. Most often a game *Pričam ti priču* [I'm telling you a story], which has a number of versions (Kelemen Milojević, 2021: 95): 1) version 1 – gifted can invent a story with at least ten different characters from fairy tales, fables, poems or stories about animals, and it is necessary for them to use direct speech; 2) version 2 – a child begins a story of his/her own choosing, while other children only listen in the beginning, and they raise their hands and ask the child who is telling the story questions; the child who is telling the story should answer the question and then try and continue telling the same story; questions asked by other children should be interesting, unusual, nonsense and not related to the story they are listening to, like, e.g: *koliko je sati* [What's the time], *da li si gladan* [Are you hungry], *koja je tvoja omiljena životinja* [What's your favourite animal], etc. An example of a verbal syntactic game according to characters from literary works for children is the following (Bojović, 2009: 163–172):



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Mama koza je izašla iz kuće, kad naiđe *Pepeljuga* plačući. Ona upita *baku* da li su *prasići* sagradili svoje kućice, a *Snežana* joj reče:

– Ne znam, ali ću pitati *Crvenkapu*, koja upravo bere cveće za *sedam jarića*.

– *Lovče, lovče* – upita *mama* – zašto si tako tužan?

– Kako da ne budem tužan – odgovori *beli leptir*. Pokisnuću, a onda više neću moći da letim. Pusti me, *žuta lalo!*

– Pustiću te, iako ti meni ne možeš nikad pomoći – reče *lav* i pusti *miša*.

Miš, sav srećan, zajedno sa *vukom*, odjuri u bajku gde žive *patuljci*.

[Mum goat left the house, when she met Cinderella who was crying. She asked granny if the three little piglets had built their houses, when Snow White told her:

= I don't know, but I'll ask Little Red Riding Hood, who is picking flowers for the seven little goats.

= Hunter, hunter – mum goat asked – why are you so sad?

= How not to be said – a while butterfly replied. I'll get wet, and then I won't be able to fly. Let me go, little tulip!

= I'll let you go, if you can never help me – lion said and let the mouse go.

The mouse, happy, accompanied by the wolf, ran away to a fairy tale where dwarves live.]

Apart from verbal syntactic games, *drama plays with rules* also include *warming up games and physical games* (Predstavi se kao da..., Predstavi sebe na sledeći način... [Introduce yourself like... Introduce yourself in a following way]) and *concentration games* (Kad si srećan, Kako kapetan kaže, Dirigent, Igra memorije [When you are happy, As the captain says, Conductor, memory game]...). All these games can encourage imagination and creativity of the gifted so that they can be expected to create new versions of the existing or completely new games.

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Keywords index:

Paradigmatic language games – a type of language games including invention, poetic imagination and combining (all that has equivalents or appears in children’s symbolic game), expressed through shortening (trimming) or elongation of words, irregular grammar constructions (irregular plural, inappropriate gender and cases of nouns, omission of functional words – prepositions, conjunctions, auxiliary verbs); paradigmatic language games can be found in contemporary poetry and prose for children.

Conversational Games – language games with whose help children are encouraged to talk and communicate in a form of a game with an object, creature or phenomenon; games in harmony with the abilities and needs of gifted children, inciting awareness of the importance of speech as a basic and most common human activity of establishing and maintaining communication.

Verbal syntactic games – drama plays, i.e. language games with certain rules using drama strategy aiming at acquisition of a whole range of abilities and skills (communication skills, trust, imagination, oral and listening skills, cognitive capacities, teamwork...); they do not require prior experience, but can contribute to identification and encouragement of giftedness.



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Tomaž Bratina

ICT in learning mathematics at an early age - didactic robot

An innovative approach to fostering giftedness through ICT can yield very favourable results. Adequate inclusion of ICT resources should certainly be taken into account, which is exclusively in the domain of kindergarten teachers. This aspect can be achieved only if the kindergarten teacher has the appropriate level of ICT competence. Otherwise, it can very easily happen that the possibilities and advantages of ICT turn into their opposites and the results turn out to be unexpectedly negative instead of positive, which is actually the basic goal. The mentioned problem is related to the entire teaching content of the activities of kindergarten teachers and children in the process. In the sea of ICT content and devices, the kindergarten teacher needs a good knowledge of them and the ability to assess the possibilities and in which part of the educational process they can be included or can they be used at all. A positive aspect of the possibility of using ICT in the process of education is the familiarity of children with the technology itself and the lack of fear or resistance to all forms of ICT content. Moreover, there is a high degree of motivation and curiosity. It is in this segment that the role of kindergarten teachers is crucial in terms of channelling in the desired direction and moderating work. From the aspect of giftedness, the educator has a very difficult task in this segment in terms of recognizing the giftedness of individuals, because the level of motivation and interest alone cannot automatically indicate giftedness. In this part, the level of ICT competencies of kindergarten teachers comes to the fore again, and they have the opportunity to raise the level of difficulty of tasks or set problems, which children solve using ICT, through play and attempts. Both as an integrated whole or in certain parts of upbringing contents. This approach to learning in the modern teaching paradigm is called Learning through play or gamification (Matijević & Topolovčan, 2019: 1–29). The basic idea is to gain new knowledge or solve problems by solving interesting tasks in the form of games. Didactically designed use of ICT tools brings children fun and as a reward - knowledge and skills (Brian, 2014).

Nowadays, there is an abundance of ICT content, the only thing is that not all of them are suitable for use from the aspect of age or the aspect of current educational content. Each kindergarten teacher will best assess the meaning of the use of ICT content with regard to the overlooked work or topic.

In the field of early learning mathematics at the preschool level, ICT can serve very well in arousing interest and helping to solve problems. It is in the process of solving mathematical problems that the need for structured thinking emerges. The main part of the overall problem is its individual segment, and thus part of the solution as well (Bratina, 2012). Only if the problem is worked out in certain parts, a solution can be sought, because otherwise, it remains too complex.

As an opportunity in the process of early learning mathematics at the preschool age, ICT can be introduced with the use of didactic robots (Prtljaga & Bratina, 2020). There are several types of didactic robots and they are adapted to the age of children and the degree of complexity of the problem. Their visual characteristic is cuteness which immediately attracts attention. The control of the robot is possible with the help of an application of a mobile phone or tablet, which can be done by a kindergarten teacher or a child. When talking about older children, control can already be performed with the basic functions of coding or programming. But, the process of eventual programming or coding, for the purpose of early learning of mathematics, serves exclusively as a tool. Although this tool also requires analytical and



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algorithmic thinking, exactly solving these problems can effectively identify giftedness and raise the level of complexity for individuals.

The use of a didactic robot could be most effective in the phase of motivating children to solve a mathematical problem, as well as in the final phase of recognizing the results of a mathematical problem. The basis can be the creation of thematic bases (Prtljaga & Bratina, 2020) which represent a mathematical problem in the form of distributed numbers and operators. After that, it serves to set a problem that children can solve individually or in cooperation. Depending on the problem, after the solution is found, the robot is moved according to the chosen way of control to the part of the surface where the solution is seen.

For example: children look for the result of adding two numbers between those they see on the surface. After calculating the result, one of the children or the kindergarten teacher leads the robot to the number on the surface that represents the solution. Older children can also bring the robot to a certain position with the help of programming. The mentioned task can be performed in the opposite order from the solution to the numbers that give that result, and the robot is prepared to move in that direction.



Photo 1. *Directing the didactic robot according to the task*

Similarly, with certain modifications, more complex mathematical problems can be prepared and solutions can be sought. At no time should the kindergarten teacher lose sight of the difficulty level of the problem and adjust it to the age of the children. Otherwise, things could easily go in the wrong direction and the purpose of the work would be lost. Also, too simple problems could lead to a trivialization of the solution and obscure the real complexity of the solution. In the end, in that case, the whole process could be reduced to the level of playing and programming robots and thus lose the essence of the topic in which or because of which we introduced the robot.

Based on the example of using a didactic robot as an ICT tool in the process of learning the basics of mathematics, every kindergarten teacher can recognize the possibilities of such an



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approach and with a certain degree of differentiation develops one of the tools for recognizing giftedness. What can serve as an indicator of the possible giftedness of an individual in addition to the already defined elements are observations of kindergarten teachers and the ability of kindergarten teachers to recognize and filter indicators.

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Keywords index:

ICT – Information and Communication Technology – digital tools in the form of mobile or stationary devices for transmitting teaching and other contents in visual form.

Didactic robot – a didactic tool whose movement is directed by small steps or commands in the form of code. More precisely, we call this process coding, which we can later upgrade to programming. The guidance can be done at the beginning with the help of the application that the child uses on a mobile device.

Gamification – learning and problem solving through play. Preparation of teaching content that children get to know and complete through play or game-related activities.



Giftedness Identification and Encouragement through Integrated Approach

Danica Veselinov, Snežana Jocić, Vesna Radovanović

Exploring the world around us

For those who provide support to the potentially gifted children, and here we mean in addition to professionals – practitioners (kindergarten teachers, instructors, teachers etc.), the parents and families of gifted children, as well as other participants who contribute to the quality of education of preschool children, the key question is how to recognize gifted and creative individuals and how to provide further support to this precious human trait. It is important to keep in mind that giftedness and creativity (as an important aspect of giftedness) are manifested in very different areas: verbal-linguistic, visual, musical, physical-kinaesthetic, technical, leadership, and social skills, all of which create the world that surrounds us (Đorđević, 2007).

Therefore, one of the most important steps in encouraging giftedness and creativity is to provide a climate, stimulating and inspirational environment in which partnerships and high-quality relationships can be built, spontaneity, curiosity, searching for different ways and approaches to finding answers to a question or problem will be supported and nurtured. This implies the right to be different from others in these searches and manifestation of ideas, which can contribute to those gifted and creative to be convinced that they are accepted and appreciated by their environment. This attitude towards gifted and creative individuals leads to the richness of diversity that people and human nature are capable of (George, 2005; Đorđević, 2007).

In accordance with modern achievements in natural and social sciences, the holistic nature of child development is pointed out, which implies, among other things, that children experience the world around them globally, and that experiences are broken down into fragments and rigidly divided parts, according to scientific or other artificial systematics, children cannot adequately connect and contribute to the fund of experiences they have already acquired, as well as to their cognitive structures (Veselinov and Prtljaga, 2019). In this regard, the general goal of preschool upbringing and education with a holistic omen, refers to the encouragement of physical, intellectual, socio-emotional development, communication, creativity of children, learning based on experience and children's interest in something, gaining new experiences and expanding knowledge about oneself, other people and the world, necessary for further education and upbringing and inclusion of children in the social community, respecting the rights and opportunities of children (Veselinov, 2021).

The environment that surrounds us provides endless opportunities for work with gifted children and encourages creativity, imagination, thinking skills, ingenuity, originality and more ways to solve problems and find solutions. Let's imagine just how many examples we can use to encourage the giftedness of children from, e.g. real-life context (family life and kindergarten group life; children's world, games, children's products); wider social networks (life in a social environment, work, relationships between people); flora and fauna, the so-called *ecological footprints*, material world and inanimate nature... The richness of the world around us gives us the opportunity to see different contexts from multiple perspectives, use information flexibly, take the perspective of another (Maksić, 2007), ask unusual questions, explore and find more (unusual/different) answers, master unknown, untrodden paths towards Eureka. In the following, we will look at some of the examples that could be valuable to both practitioners and parents working with potentially gifted children and are based on heuristic and metacognitive techniques (see more about heuristic modelling in the first part of this handbook, titled:



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„Strategies and procedures for supporting the giftedness of preschool children – from the point of view of didactics”).

Let's be unusual – what would happen if...?

- ☺ What would happen if trees could walk?
- ☺ Imagine you are a tree – what would you look like, where would you live, what animals would you hang out with, what would you do?
- ☺ Imagine you are a drop of water. What could you do?
- ☺ How can we peek into a house of ants that live in our yard (at home, kindergarten) and find out more about their life?
- ☺ Imagine living on a cloud. Make up a story or draw what it would look like.
- ☺ We know that our stove is used for cooking, heating, etc. What else can a stove do?
- ☺ What could you do if you had a magic wand?
- ☺ What would happen if people shrank overnight and were the size of a cat?
- ☺ Imagine what would happen if people had two heads?
- ☺ What would happen if dinosaurs came back to life?
- ☺ Imagine you have a cloak that makes you invisible when you cover yourself. What could you do?

These examples support creativity and its key manifestations, embodied in originality, flexibility, fluency, elaboration, sensitivity to problems and similar. In this sense, it is important that questions and potential provocations to start a project or learning situation and play are inspiring, imaginative, and supportive of authenticity and originality, as opposed to conformism and stereotypes. It is easy to conclude that the basis of creative thinking, as a kind of gifted potential, consists of unusualness, discovering a new meaning of data, finding new ideas and relations, and developing different types of early literacy.

Imagination can do anything: imagine and create

Let's design and draw a zoo where the animals would not be in cages. But we have to be careful and figure out how to move safely in our zoo and enjoy watching the animals.

Try to imagine and draw an unusual animal that would have some parts of animals, e.g. an elephant's trunk, a giraffe's neck, a pig's snout, a horse's mane... Give a name to your strange animal (Cvetković Lay and Pečjak, 2004).



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Ancient question: Which came first: the chicken or the egg? We did this research as part of the project: „Where are the dinosaurs?“. This heuristic question leads us to a variety of research, in order to find the answer. The final answer, using the steps to solve the problem, leads to the answer that the egg is older. Why? While researching, we learned that ancient creatures – dinosaurs – hatched from eggs. The chickens were born much later. And not only that: dinosaurs are direct descendants of today's chickens (Petrović, 2014).

Developing different types of early literacy

Children express themselves in different ways and expand their experiences of the world around them. By modelling research relationship in learning, we encourage children to express themselves symbolically: getting to know different symbols and ways of using them; presenting experiences, fantasies, and imaginations in one's own way; mastering different ways of representation using different media, technologies, graphic symbols, etc. (*Godine uzleta: osnovne programa predškolskog vaspitanja i obrazovanja*, 2019).

Together with children, we designed how we could arrange the yard of our kindergarten. We researched, measured, drew, made sketches and models, negotiated and proposed ideas. Children turned their suggestions into sketches and maps on which the arrangement of the yard with props and units for play and research were presented. In the shown photos - children's drawings (photos 1 and 2) we see how the planning took place using different symbols. Planning is one of the key components and bases of *self-regulated learning* (and metacognitive abilities), which is considered extremely important in the development of *competencies for lifelong learning*.



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Photo 3. *Joint participation in arranging the kindergarten yard*

Ecological footprint – we care about the environment

Kindergarten is a place where a real programme is built with children, which is contextually determined. Topics and contents should be current, interesting and meaningful for children. Some of the most inspiring topics for children to explore are environmental protection, climate change, how to save our planet, etc. The following pictures (Photos 4, 5, 6, 7 and 8) show the engagement of children in cleaning the sewers, rainwater, etc. in the yard of the kindergarten since the wastewater in the area where the kindergarten is located often causes inconvenience. In addition, the children were inspired to create a new „system” of wastewater drainage from various materials (leftovers, semi-structured, didactic).



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Photos 4,5, 6, 7 and 8. *Measuring, testing, marking, construction*

Arranging space for play and research

As part of the „Neverland” project, a three-dimensional island of „Neverland” was made by the combined forces of children and kindergarten teachers from a tub, PU foam, wooden sticks, rolls of cardboard, etc. Soon after: the question arose: How to get to the island? The conclusion was that a ship needed to be built. Kindergarten teachers, children, parents and a carpenter made a large pirate ship, which can “sail” around the room (note: the shelf has wheels).



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Photo 9. Treasure island and pirate ship

In the spirit of the „Neverland” adventure, a special spatial unit was formed in which there were vacuum bags with different contents - sand, water, balls, coloured liquid, zircons, stones, feathers of different colours, clock, beads, etc. These materials were used to make a map and a labyrinth for Peter Pan and his fellows. In addition, the adventure in Neverland often included various “obstacles”, and thus suggestions for solutions to overcome them. Some of the suggestions were: feed the crocodile with fish, count Indian feathers, turn the clock, find diamonds in the sand, etc. In this spatial unit, there was also an interactive map with characters from the story „Peter Pan”, which the children drew and could move with the help of balls. In this way, the characters could „fly” to places wherever their imagination took them.



Photos 10 and 11. Sketch and map of the treasure island





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Children predict what would happen if shells grew on a tree:

- ☺ We could not eat apples.
- ☺ We would take off the shells and hang some fruits.
- ☺ Crabs would live on the tree, not in the sea.
- ☺ The sea would be angry.
- ☺ People would wonder.
- ☺ The tree would be happy.
- ☺ Mermaids would come to the tree and meet us.
- ☺ When it's windy, the tree would rattle.

Finally, we would like to add some of the keywords/phrases, with which the kindergarten teachers described the children in whom they recognized talent/potential giftedness:

- ☺ stormy sea;
- ☺ atomic physics;
- ☺ clear skies;
- ☺ interesting and incomprehensible book;
- ☺ glowing fireworks of colour.

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Note:

- Photos from 1 to 8 were taken by kindergarten teachers Snežana Jocić and Nedeljka Katić; PI „Naša radost”, Subotica;
- Photos 9, 10 and 11 were taken by kindergarten teachers Dragana Arsić and Tatjana Bjeličić; PI „Dr Sima Milošević”, kindergarten „Pačija škola”, Beograd.

Keywords index:

Different types of early literacy – a symbolic expression of children in different ways (using letters, numbers, various symbols to create drawings, maps, schemes, sketches, etc.) in meaningful situations.



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Biljana Golubović

Encouraging musical giftedness in the preschool period in kindergarten

Music permeates children's lives and is a source of pleasure and positive emotions. In kindergarten, play and planned learning situations that include singing, playing, listening to music, movement and creativity, improve musical, as part of the overall development of children. Musical giftedness as a specific ability can be noticed earlier than other types of giftedness, around the age of 3.

Musically gifted children show early signs of musical maturation. They begin to master musical abilities before the average of their age group: they sway when they hear music, they are sensitive to sounds, they always sing a song during play, they remember and repeat melody better, they notice incorrect sounds in music, they master rhythm faster, they express better with Orff instruments, they come up with their own songs and compositions (You can read more about this in the review paper: Činč, E. [2013]. *Kompetencije vaspitača i mogući uzroci pogrešnih metodoloških pristupa u identifikaciji muzički darovite dece*. Temišvar: Univerzitet De Vest Temišvar; Vršac: Visoka škola strukovnih studija za vaspitače „Mihailo Palov”).

Characteristics of musically gifted children (Andre, 2008:775 according to Farmer, 2007) are: good sense of rhythm, good coordination, fairly good distinction of musical and other sounds, understanding of musical relationships, enjoyment of musical activities, distinct musical memory, respond immediately to rhythm, melody and harmony, use music to express feelings and experiences, have a spontaneous and original creative impulse in composing and performing, enjoy dance and drama with elements of music, memorize music extremely quickly, have a strong sense of pitch.

In order to encourage the development of potentially gifted children, it is necessary to notice them while they are still in kindergarten, to get to know them, find out what drives their imagination, and the way they discover the world around them and provide additional support in building relationships with peers in researching and participating in making music.

It is necessary to satisfy the children's need for research, expression and creativity. Creativity is primarily focused on the process, not the product. A child is interested in the process of dancing, singing, playing instruments. He/she is not burdened by the final outcome of his/her creative activity.

An important strategy in working with musically gifted children is a rich learning environment, a space that is structured to be inspiring and provoking, for children to play, explore, learn and collaborate.

The spatial whole for sound and movement is the space that musically gifted children visit most often. It should contain musical instruments (percussion: triangle, cymbals, tambourine, jingle bells, rattles, rhythm sticks, drums, castanets, bells, metallophone, xylophone), musical toys (music boxes, music matching game, synthesizer, sound toys, music mat), props (scarves, sticks, bags, rubber bands, rags, balls, hoops, cones, tunnels...), various types of sound research materials, recycled and natural materials for making musical instruments, audio-visual media (TV, CD player, music of various genres), music board. Thumbnails, associations for learned songs and counters can be hung on the music board, which will encourage children to repeat and sing songs they learned with the help of kindergarten teachers in a guided game or some phases of a project. Rhythmic images of counters and drawings of songs for playing with the help of colours can also be hung on the music board. Using the music board, children can play instruments on their own in accordance with their age.



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There may also be a music wall for sound research in the spatial unit for sound and movement. Vessels of different materials, pipes, buckets, grates, pots, and tins can be hung on the wall. Such a wall can be placed in common areas or the yard.

Creating such a space is a process. It is created through play and planned learning situations, and projects, through the joint engagement of children, kindergarten teachers, and parents, so that it has a meaning and purpose for children.



Photos 1, 2, 3 and 4. *Spatial unit for sound and movement*

The role of kindergarten teachers in encouraging musical creativity

It is very important to create a positive atmosphere in the group to develop and encourage children's creative activity. It is necessary to provide children with a variety of sensory experiences and create research opportunities. Creative activity of a child is a result of well-thought-out and gradual actions of children and kindergarten teachers in which the child feels good, activates his/her potentials, presents his/her ideas and masters a series of skills that awaken creative activity in him/her.

In the spatial unit for sound and movement, kindergarten teacher allows children to organize play and rules of games according to their ideas, prepares the environment, provides materials (objects that create sound, various musical instruments and percussion, objects made out of wood, plastic, metal...), monitor children during play and their reactions and conclusions. In such an open game, children independently predict, discover and explore materials and tools, for example in a sound research game.

In an open game, children sing spontaneously, regardless of whether the song has lyrics or not, whether it is intended for the listener or not. We call such singing creative singing. Narrative invention occurs in play, as well as in various life situations: on the bus, while riding a bicycle... Imagination that has a melody in the foreground, is accompanied by appropriate children's actions. The child sings a shorter, imaginary melody, which is often accompanied by rhythmic movement - swinging or some children's activity (drawing, stringing beads...). It depends on the situation what children will sing. A spat will be accompanied by a wild children's song, and drawing or painting will be accompanied by gentle singing. (You can find out more about this topic in the book Bjerkvol, J. R. [2005]. *Nadahmuto biće*. Beograd: Plato).

In open play, children often create their own dance improvisations. With movement, children can present a picture (wind), an idea (travels), or feelings. In them, children create movements on their own with music. While dancing, children master various forms of movement such as: walking, running, jumping on one or both legs, turning, making steps... as



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well as maintaining balance. (You can find out more about this in the book Kasagić, Đ., Bojanović, I. [1995]. *Igre pokretom*. Beograd: Zavod za udžbenike i nastavna sredstva).



Photo 5. *Creative singing*



Photo 6. *Dance improvisation*

One of the ideas of how a kindergarten teacher can expand children's play is musical dramatization. Kindergarten teacher has the opportunity to design play in a way that is meaningful to children, shape the content of appropriate songs, motivate children to join the game by playing a certain role, make costumes, dolls, masks, props and invite other children to play. Dramatized text is performed by singing. Children independently determine the characters, improvise movements, accompaniment on children's instruments and give ideas for costumes and décor. It is important that children know the plot, i.e. lyrics. The basis of dramatization can be a story in which children give a musical background.

Also, in the extended game, kindergarten teacher enriches the content of dance improvisation by adding various props (ribbons, balls, hoops...) or rhythmic instruments (rattles, jingle bells, castanets, tambourines), so that the dance gets full expression. Dancing in children happens spontaneously, but it can be encouraged by a song, a verse or a short story.



Photos 7, 8 and 9. *Musical dramatization*

Sound research can be expanded by adding new props or giving suggestions to children and kindergarten teachers on how an experiment can be done.



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Photos 10, 11, 12, 13 and 14. *Sound research*

Kindergarten teacher initiates, directs and participates in **guided play**. He/she shows movements, gives the idea of a game, helps children organize, encourages them to explore and give their suggestions. One example of a guided play is instrumental improvisation and orchestra.

„Instrument as a toy arouses children’s interest in active participation in music and develops the joy of making music.” (Stojanović, 1996) For a child, speech, singing and music are naturally connected. Children can create their own rhythm, melody, movement. By involving the whole group in improvisation, children gain self-confidence, and in this way, we protect each child individually from failure and frustration. When we ask them to repeat a melody, they probably won’t be able to do it right away, but when they try to remember what they played, we are on our way to a real, creative, children’s composition.

Guided play can encourage creative singing. In it, the child should design his/her own song (lyrics and melody). Examples of such games are: „Piano shop, Music question and answers, Continue the song, Music pictures...”

To encourage children to focus on research, ask questions and try to find answers to them, present their ideas, use their previous experiences and connect them, in response to the need of potentially musically gifted children to gain more experience researching music, kindergarten teacher responds with a „provocation”. It can be a musical instrument, certain materials for sound research, our performance of a melody on the piano, a song or video material (music video, musical, show...). A well-chosen „provocation” will stimulate children’s imagination, amazement and interest in the process of research and development of the project.

Additional programmes such as music workshops for children and parents, music studios and camps can be organized as a way to encourage musical talent. The organization of music events in the form of visits to places in the local environment where children can get answers to their questions regarding music is very important as well as consulting and making music with a famous musician, „music expert”, within projects where children explore sound and movement, to expand children’s experience within their interests.





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Photo 15. *Music workshop for children and parents* Photo 16. *Music camp* Photo 17. *„Music expert” visit*

They say that having a gifted child is like having two children: giftedness and a child. In the pursuit of giftedness, we must never lose sight of a child. A child should be part of his/her peer community in which he/she will build relationships of trust in a supportive environment with the support of peers and adults. It is important to support the well-being of every child through the joy of discovery, creation and expression through music so that we educate conscious and grounded people who seek their expression in music. (You can find out more about this topic in the scientific paper: Bogunović B., Dubljević J., Jovanović N. [2011]. *Muzički darovito dete*. Beograd: Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu).

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Note:

- Photo 1 was taken by kindergarten teacher Višnja Pešić, kindergarten „Poletarac”, PI „Poletarac”, Odžaci;
- Photo 2 was taken by kindergarten teacher Olivera Kulešević, kindergarten „Novosađanč”, PI „Radosno detinjstvo”, Novi Sad;
- Photo 3 was taken by kindergarten teacher Snežana Jocić, kindergarten „Zeka”, PI „Naša radost”, Subotica;
- Photo 4 was taken by kindergarten teacher Tanja Rajačić, kindergarten „Kalimero”, PI „Radosno detinjstvo”, Novi Sad;
- Photo 6 was taken by kindergarten teacher Aleksandra Marcikić, kindergarten „Cvrčak”, PI „Mladost”, Bačka Palanka;
- Photo 10 was taken by kindergarten teacher Nela Dujić, kindergarten „Poletarac”, PI „Poletarac”, Odžaci;
- Photo 13 was taken by kindergarten teacher Olivera Dišić, kindergarten „Lane”, PI „Bambi”, Loznica;
- Photos 5, 7, 8, 9, 11, 12, 14, 15, 16 were taken by kindergarten teacher Biljana Golubović, kindergarten „Pupoljak”, PI „Dečja radost”, Pančevo.

Keywords index:

Learning environment - space unit for sound and movement, room structured so that it is inspiring and provoking, calling children to play, explore, learn and cooperate, created through play and planned learning situations, projects, as well as through joint



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engagement of children, kindergarten teachers and parents, having meaning, purpose and sense for children.

Kindergarten teachers' role - actions of kindergarten teachers during open, extended and guided play encouraging children's creative activity, providing children with a variety of sensory experiences and creating opportunities for learning and exploration.

Music improvisation - creative activity of a child, without prior preparation, oriented before all towards the process, rather than the product, addressing child's need for exploration, expression and creativity.



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Jovanka Ulić, Dragana Adanski

Drama Creation as Giftedness Incentive

Dramatic art is one of the rare forms of art that integrates various artistic disciplines and skills – visual art, music and literature, and is manifested through speech, gesture, acting, movement and art elements (shape, colour, light...). Key special feature of drama creation and its reception is reflected in the possibility for a viewer to be present during creative act, embodied in a public performance, thus becoming its direct participant.

Starting from the statement that play is a fundamental form of functioning for preschool children, Lev S. Vygotsky (Лев Семёнович Выготский) in his book „Imagination and Creativity in Childhood” points out that drama creativity most closely, most efficiently and most directly connects artistic creativity with personal experience of a child, so that stage expression is stronger than any other form of creativity related to play.

Reflecting on the role of drama play, British playwright Ronald Harwood emphasized that a man (a child) in a dramatic play „performs and entertains others, showing off and entertaining him/herself and again – a child is one of the most powerful instruments for research in an attempt to comprehend oneself, the world one lives in, and one’s place in that world” (Harwood, as cited by Ignjatov Popović, 2018.).

It is through drama creativity that imagination comes to its full expression. Child’s mind at preschool age, thanks to imagination, goes beyond the limitations of reality, and the child is able to see the images of the objects which are not present, to imagine settings unknown and strange to him, to see the bottom of the ocean, to fly directly to space, to “tell” his/her own story. A significant characteristic of drama creativity refers to time and space dimension, where interestedness of children is determined by the duration of drama play and created space dimension in which the play is going on.

The International association for drama/theatre and education *IDEA* (<https://www.ideadrama.org/>) has in its activity been supporting the work of educational and theatre institutions around the world. In the last two decades, there have been programs for affirmation of drama in education organized in Serbia. With the support of the European Union and the participation of domestic funds, three significant projects have been implemented since 2008:

Drama improves Lisbon key competencies in education – *DICE* (<https://dramanetwork.kavaszinhaz.hu/international/serbian/>)

Intercultural Drama Education and Learning – *IDEAL* (<https://euusrbiji.europa.rs/podrska-umetnika-interkulturalnom-ucenju/>)

Interconnecting Stakeholders in Learning and Drama in Serbia – *ISLANDS* (<https://bazaart.org.rs/projekti/ostrva-islands/>).



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Forms of Drama Creativity – Possibilities for Identification of Giftedness for Drama Creativity at Preschool Age

Basic features of creativity in general and thus drama creativity refer to freedom of thought and creation, as it has been pointed out by Loris Malaguzzi, along with the encouragement of exchange and cooperation. In other words, what is important is the process itself, rather than the product of creation. In his poem „No way. The hundred is there” Malaguzzi describes a child as a being with one hundred ways of expression, one hundred hands, one hundred ways of thinking, playing, listening... one hundred ways to discover, one hundred worlds to think about, one hundred worlds to dream about... A child should be a competent protagonist of his/her own learning and development. According to his/her nature, a child is active, creative, unique, unrepeatable, and if we provide him/her with the opportunity to participate in work on projects involving the presence of „expressive languages” (visual, music, drama), he or she will be independent or cooperate with other children, developing one’s own symbolic expressions contributing to one’s comprehensive development (Colić, Lazić, Ulić, Janković, Galić, 2018).

However, it has to be pointed out that identification of giftedness within drama creativity at preschool age requires a dedicated and educated kindergarten teacher, a teacher who will carefully observe and notice various aspects of children’s imagination. Talent for drama expression, as it has been pointed out by the psychologist Bojana Škorc, reaches its absolute expression after adolescence, and that is why with children and young people „drama creative work should not be oriented towards individual talents, but to group creative development”. (Škorc, as cited by Đorđević, 2014: 5).

Preschool institution is the very place where in the process of drama creation creativity is expressed, initiated in play and developed through play. Drama play is an encouraging base, offering children unique possibility to be unrestrictedly creative and imaginative. „Drama expressions of children actually overlap with their drama plays. In pretend play children can do what they cannot do in real life. They can “walk in the shoes of others”, i.e., they can be absorbed in a role and be someone else. In these plays children can be “masters of the situation”, i.e., they can do what they cannot do in real life” (Slunjski, 2014: 57). It is important to point out that through various forms of drama expression a child does not “imitate” adults or anyone else, but he or she really indulges in the role, creating an authentic playful situation.

Answer to the question how drama creativity influences children’s development lies in the fact that drama play is a complex “multifunctional activity” (Ignjatov Popović) manifested in different activities like, e.g.: invent, cut, glue, draw, paint, bringing something closer or further away, light up, lift, put down, move, compare, count, circle, articulate in words, sing, listen, show, help, wait, support... Through these activities, children activate their mental and physical functions, along with the encouragement of development of motor, sensory, affective, social, cognitive and conative abilities (Radović, Velišek Braško, Marinković, Ignjatov Popović, Ulić, 2019).



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Photo 1. *Real sword*



Photo 2. *Glueing the sword*



Photo 3. *Imagining being a knight*



Photo 4. *Made requisites are used in drama play*

Drama creativity of children is manifested in:

- Symbolic game: imaginary situation in which a child manifests creative imagination, invents contents of the play and identifies its participants (attributing roles to toys and other objects – a pen becomes a microphone, a chair becomes a horse ...).
- Roleplay: depends on socialization and communication of a child with other children, agreement on the content of the play and respect for wishes and interests of others. For the shift to roleplay, a fact is significant that in symbolic game a child develops his/her ability to sink into different roles and also gives different roles to objects he or she plays with.



Photo 5. *Cutting feathers for the knight's helmet*



Photo 6. *Cutting cardboard for knight's helmet*



Photo 7. *Created swords and helmets*



Photo 8. *Knight games*

The Importance of the Environment for Symbolic Play

„Beauty lies in harmony, rather than chaos, and harmony implies similarities, noticed through perfection of senses. Beautiful harmonies between nature and art are not perceived by those whose senses are insensitive. In that case, the world is restricted and dull” (Montesori, 2016: 165).

Encouraging atmosphere in places children spend their time is a precondition for free expression, creative expression and communication. Reggio theorists and practitioners consider space to be specific language consisting of cultural aspects and having deep biological roots. Observation of space is subjective (personal feature) and holistic (tactile, visual, auditive



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and kinaesthetic), so even though its code is not always explicit, we experience and interpret it since early childhood (Rinaldi, 2006).

Space unit for symbolic play is arranged according to the topic/project we are dealing with and it can be organized as:

- Spaces where everyday life activities happen (surgery, library, firefighter station, etc)
- Imagined spaces (a castle, open space, etc).



Photo 9. Answering the phone in firefighter station



Photo 10. Firefighter truck



Photo 11. A firefighter saving a cat



Photo 12. Court guard



Photo 13. Rapunzel in a tower



Photo 14. Drama play in front of the castle

The space arranged in accordance with a theme/project encourages children to communicate, they share their experience and knowledge in it, they suggest, try out and increase their understanding while finding sense.

The Role of Kindergarten Teachers in Giftedness Encouragement in the Field of Drama Creativity

„Original drama activities of children can be both supported and obstructed by the involvement and interventions of adults. No 'practising' of a role, implying encouragement of a child to memorize or repeat a given text (e.g. in the function of preparing a play) is the best way to support children's *drama language*” (Slunjski, 2014: 59).



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Open Play

Symbolic play, role play – pretend play in which children independently develop the plan of the play, as well as the rules (I am a doctor, you are a patient...); attribute features and gives roles to toys and other objects (a pen becomes a mike, chair becomes a little horse...); these are plays uniting experienced, real situation and imagination; a kindergarten teacher is the one who observes, reorganizes the space, provides necessary resources and materials...



Photo 15. *Open play during the project "Flies, flies a reindeer"*



Photo 16. *Open play of children during the project „Flies, flies a reindeer”*



Photo 17. *Open play during the project „Flies, flies a reindeer”*

Extended Play

Dramatization of a text of children's choosing where a kindergarten teacher supports the play playing together with children takes a role supporting initiated play; makes requisites necessary for the play (toys, costumes, masks, stage...); suggests materials; involves other children in play.



Photo 18. *A kindergarten teacher in a role – an extended play during the project „An Old House”*



Photo 19. *A kindergarten teacher supports the play – extended play during the project „An Old House”*



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Guided Play

Guided plays refer to the plays intended for celebrations, manifestations in honour of important dates, plays for families (rituals, routines) ... A kindergarten teacher suggests and together with children chooses and prepares the text, participates and guides the division of roles, paying special attention not to disturb the principle of voluntary participation, imagination, creativity, challenge; he or she encourages adequate use of materials – shows movements – practices movements on the stage, rehearses the text with children, suggests materials and creates necessary requisites (involving children, as well as their families in the process); he or she leads reflexive dialogue with children about the play.



Photo 20. *The age of volcano – a play from the project „What does a fossil tell us”*



Photo 21. *The age of dinosaurs – a play from the project „What does a fossil tell us”*



Photo 22. *Cave people – a play from the project „What does a fossil tell us”*

„It is desirable in drama activities of children for an adult to follow their logics and use their language, rather than imposing his or her own” (Slunjski, 2014:62). In order to encourage children’s engagement respecting the learning style of each child and enabling him/her to express his/her potentials, a kindergarten teacher talks to children about possible solutions for role play, both in the case of resolving different problem situations in everyday life and in the so-called „frozen scenes” of familiar stories or drama extension. Children suggest possible scenarios subsequently tried out by the group.

Roleplay leads to new, invented stories or extended dramas. It is a responsibility of the kindergarten teacher to provide suitable resources and equip the space unit for visual arts and literary space unit with materials and means helping children make requisites needed for certain roles. In this way, children can broaden their understanding and express themselves in different ways. For example, a familiar story about King Midas is extended by children playing pirates who experience a shipwreck to find salvation on King Midas’ island. The king does not want to accept them, but the captain of the pirates negotiates with him. The kindergarten teacher brings in the space unit the following objects: naval hats, ship blueprints, books about pirates, material for drawing the maps of the island, bottles for messages, „captain’s diary”, sand...

The importance of the role of a competent kindergarten teacher is also evident in the following situations:

- In the case of a conflict when roles are divided between children, i.e., when more children want to have the same part
- If a child wants to be a part of a drama play, we can see that the child observes, but does not have developed strategies and social skills to get involved



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- If we notice that children are giving up the drama play, because its abstract is repetitive, a kindergarten teacher can help and enrich the plot of the play through certain encouragement, extensions, new materials providing children with the opportunity to gain various experiences
- When children do not understand a role, they ask the kindergarten teacher to get involved and take the role in question (but it must not be the main role), thus supporting children's play.

Roleplay is taking the identity of another, and a child should understand what defines the role, i.e., what the protagonist does and what kind of relations he or she builds.

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Note:

- Photos 1, 2, 3, 4, 5, 6, 7, 8, 12, 13, 14, 18, 19, 20, 21 and 22 were taken by the kindergarten teachers Dragana Ađanski and Ana Novoselac; kindergarten: „Bubamara”, Sremska Mitrovica.
- Photos 9, 10, 11, 15, 16 and 17 were taken by kindergarten teachers Zorica Bodlović and Gordana Džambić; kindergarten: „Maslačak”, Sremska Mitrovica.



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Keywords index:

Drama plays – creative plays in which the means of expression are the following: word, movement, sound; they provide children with limitless possibilities to be creative and imaginative, to express their ideas, experiences, to express their creativity.

Imagination – thoughtful creative ability to create in thinking process sufficiently clear notion on forms, characteristics and other features of a thing or object, relations between things, or between people, which are yet to emerge.



Giftedness Identification and Encouragement through Integrated Approach

Tomaž Zupančič

Visual Art Giftedness at Preschool Age

Art is conditioned by creativity which is related to giftedness. The notion of creative talent is defined as a “high potential to produce a piece of art which is original and context-appropriate” (Besancon, Lubart, Barbot, 2013). At the same time, it is considered that visual arts activities are intended for all children since it is possible to develop creative potentials in each individual.

„Visual art expression, especially drawing, is a necessary tool for human cognitive development. In the theories of visual/graphic development, children’s visual art is understood as creative self-expression, a significant form of formal framework and cultural production” (Muhovič, 1990; Arnheim, 2009). Consequently, the role of visual art pedagogues is to enable further development of potentially artistically gifted children. Identification of artistically gifted children is one of the most difficult tasks of visual art pedagogue. Even though certain authors consider the phenomenon of giftedness to be rather mysterious (Matthews & Foster, 2005), visual arts pedagogy still knows many concrete ways of work with gifted children.

The definition implies that giftedness is a potential for reaching above-average achievement in a particular field (George, 2004). Successful work of an educator with artistically gifted individuals depends on numerous factors, First of them refers to the kind of a kindergarten teacher who can be more or less sensitive to individual differences between children. The task of a good visual art pedagogue is to consider different aspects of “personal creativity” of children (Runco, 2006). According to them he or she can develop individual approaches. Furthermore, it is significant for a kindergarten teacher to be emphatic. He or she has to have the highest possible level of knowledge on how to find, recognize and work with gifted children. What might also influence the work with the gifted is working experience and work enthusiasm.

Visual Art Giftedness at Preschool Age

Systematic registration and identification of gifted pupils has been going on for several years in Slovenian elementary schools (Duh, Kljajič, Bratina, 2018). Unfortunately, this is not the case with preschool children, in spite of the fact that professionals agree that it is very important to identify gifted children as soon as possible and pay additional attention to them accordingly (Jedlovčnik, 2013). There have been a lot of discussions regarding preschool children (Glogovec, Žagar, 1990), but even today it cannot be talked about systematic engagement, detection, development or encouragement in work with them (Stritih, 2012). One of the reasons lies in the fact that the notion of visual art giftedness at preschool age has its specific features. Therefore it is impossible to transfer the principles relevant for giftedness research at an older age (primary, secondary school) and apply them to preschool age. This is the period when we cannot talk about specific artistic creativity. Specific artistic activity, i.e. conscious and witting artistic expression will occur only after eight years of age. We have to be aware that artistic expression of small children represents an integral activity and it is, in the first place, expression of a child, and it is artistic expression only in the second place (Karlavaris, 1986). This means that visual art expression at preschool age is conditioned by developmental, cognitive parameters of development and that it is not a desire for artistic aesthetic action or increased interest resulting from potential giftedness of a child. A formula is



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valid for preschool age: visual artistic expression of a child = visual artistic thinking of a child (Goodnow, 1977; Arnheim, 2009; Barnes, 2009).

Visual art expression at preschool age is neither a mere expression of psychological parameters of child's development nor the expression of inborn aesthetic need, it is rather a developmental tool and cognitive necessity (Muhovič, 1990). In other words, it is not possible to think about visual art giftedness at preschool age and not have in mind developmental and cognitive features typical for this period. This demands a thoughtful and in-depth treatment of the subject.

How to recognize giftedness in visual art expression at preschool age?

The research (Zupančič, 2021) has confirmed that kindergarten teachers rely primarily on their own needs and subjective feelings in revealing artistically gifted children. The criteria they use are obvious and easily measured, but not necessarily accurate. Talent of a kindergarten teacher is identified with the increased interest in visual art activity, persistence and precision. One of the more reliable criteria for identification and promotion of giftedness is perception of positive deviations in artistic development. The criteria for visual artistic work of a child are measurable in several segments:

- in the field of drawing, they refer to versatile use of lines (length, direction, width, character, role...), abundance of forms, patterns and artistic rhythms, intuitive use of light and dark, perception of details in motives, richness of details, etc.
- in the field of painting, they refer to the increased use of different colours, intuitive mixing of colours, sensitivity to perception of the phenomenon and harmony of colours.
- in the field of basic printing, this is a skill in using graphic procedures and working methods, expressed joy and interest in experimenting with artistic means and work methods, understanding the principles of printing, copying and the relation between the visual and the tactile.
- in the field of sculpturing, they refer to tactile sensitivity and ability to comprehend the essence of the material, the ability to create simple gradually more complex space formations, sensitivity to the stability of sculptural construction, innovativeness in the use of sculpture materials.
- in the field of space projecting, giftedness at preschool age can be manifested in intuitive perception of dimensions and specific features of the space (open, closed, semi-open, cramped space, transparent space...).

Innovative Approaches and the Role of a Kindergarten Teacher

Kindergarten teachers' innovative approaches and their role in promoting giftedness in the field of visual arts are reflected in the following:

- A kindergarten teacher knows the developmental features of visual art expression at preschool age and can detect deviations from them.
- The work of a kindergarten teacher with potentially gifted children is oriented to development of creative potentials, rather than learning how to draw, paint, etc.



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- The work of a kindergarten teacher with gifted children is based on the principles of creativity and, before all, individuality. Giftedness in visual artistic expression in children is manifested in a variety of ways so it is impossible to define precise instructions on how to properly act in regard to pedagogy or didactics.
- Last but not least, the work of a kindergarten teacher with a gifted child is fully process-oriented, rather than artistic product oriented. The ultimate goal of the work with a potentially gifted child is to develop giftedness, rather than create beautiful paintings, drawings or sculptures.

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Keywords index:

Cognitive necessity – a notion introduced by a Slovenian theorist of art and a philosopher, the professor at the Academy of Visual Arts in Ljubljana, implying natural need (necessity) of a child to express him/herself artistically, because only in this way he or she can explain visual phenomena and laws ruling the three-dimensional world we live in.

Visual thinking – an aspect of human thinking dealing with visible forms, colours, spatial relations. This is a process enabling getting to know visual worlds and is an inevitable tool in getting to the essence of spatial relations of visual phenomena.



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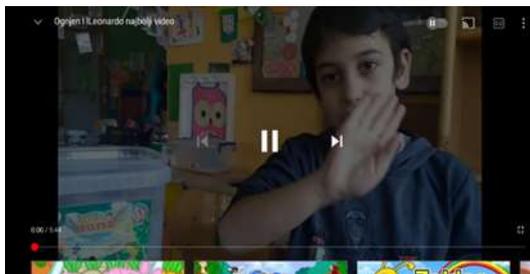
Nela Dujic

Giftedness support through the use of ICT

We live in an age where scientific and technical knowledge and its applications are rapidly developing and it is not certain that we can imagine what the world will look like in 10-20-30 years, and what knowledge, skills and abilities will be needed. Today's preschool children will certainly grow up and it is certain that we as adults now have a responsibility to take care of children and the context in which they grow up, to observe with them, research, use the possibilities of ICT, acquire and spread habits of safe use. According to the New Preschool Curriculum Framework, preschool upbringing and education are laying the foundations for the development of key lifelong learning competencies in children. In that sense, digital technology, and information and communication technologies (creation, discovery and construction) are tools for the development of lifelong learning competencies and they need to be developed as one of the key competencies.

The role of the kindergarten teacher is to encourage the development of creativity and to enable each child to express himself/herself in appropriate ways without being limited to one medium or one way. „Purposeful application and integration of ICT in educational work mean that it can never replace the meaning and value of children's play with real objects, other children and people. We should strive for ICT as tools for constructing, not 'transferring' knowledge (child is an active participant in the learning process), develop and discover the possibilities of digital culture, develop digital literacy of children, kindergarten teachers and parents” (see more about this in: *Obuka „Otkrivanje digitalnog, kreativna i odgovorna primena tehnologije u vrtiću” 679, ZUOV*).

It is beyond dispute that the world is changing rapidly, and today's education systems and all their creators are not keeping up with the context in which children grow up, kindergarten teachers need to develop their digital competencies to take advantage of existing ICT opportunities and eliminate risks of inadequate use. We need to accept the digital reality, to first educate ourselves and only then equip kindergartens with technology, to understand that digital technology is “content to be learned, an opportunity to learn, to be informed, create, cooperate, solve problems; develop computer skills.



Photos 1 and 2. *Children film various tutorials*



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It is increasingly necessary to develop an understanding of the way digital technology works, a critical attitude towards the information we receive through it, and an awareness of its possibilities and risks. There are constant debates about how much time experts recommend that a child spends in front of the screen; the values are different, but if we focus on the quality of time spent in the use of ICT, it would be more meaningful and functional.

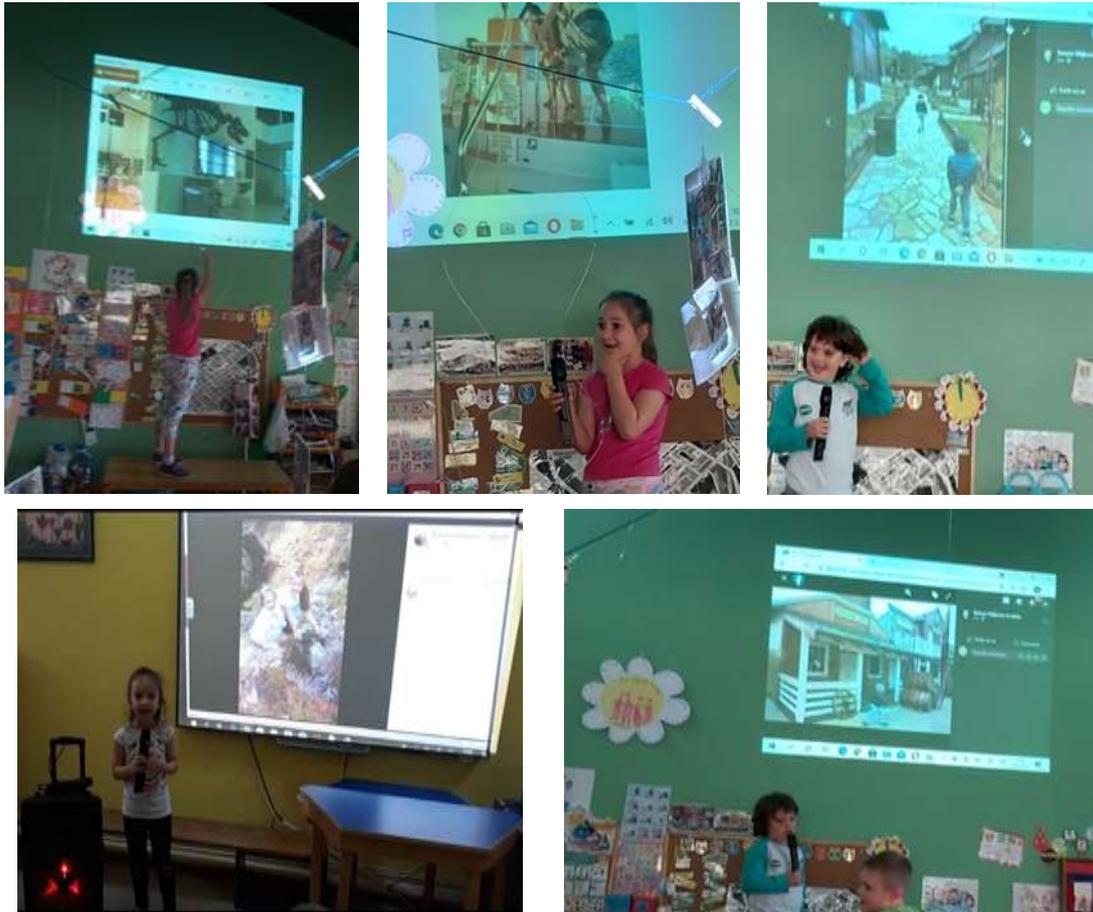


Photos 3, 4 and 5. *Children actively participate in documenting*

Activities on-screen or with the help of ICT in no way can or should take the place of imaginative play with peers in space as the basic initiator of children's imagination and creative problem-solving skills. As practitioners, we must not ignore the digital culture that children are surrounded by, not allow ourselves to be seduced by the possibilities of digital technology for creation, knowing that they are evolving more and more every day.



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Photos 6, 7, 8, 9 and 10. *Game of „Reportage” (using ICT tools - projector, microphone, speaker, smart board)*

Professional responsibility of practitioners is to harness the potential of ICT at a secure level. If the practitioner in his/her work strives to include children in the active use of technology in their projects by making existing digital tools accessible to children, together they can critically assess whether they need them to create games, ideas, suggestions, research, uses. ICT can be a challenge, an invitation for joint research, socializing, and play where children are open to consulting on possible ways of use with the support, respect and belief in the potentials of the child.



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Photo 11. Game „What will the weather be like tomorrow” Photo 12. We explore, we discover

Children can use simple programs for programming (e.g. Scratch Junior, Tux Paint, etc.) at a creation level.



Photos 13, 14, 15, 16 and 17. Using the Tux paint tool



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When children solve complex problems with the help of robots, as well as open ones, which have many different ideas, when they learn to code, think like developers and create with the help of digital technology, they actually discover a whole new world of possibilities which is waiting to be rediscovered over and over again. Using ICT, they also develop symbolic expression in various life-practical situations.

Digital competence, one of the key ones for lifelong learning, emphasizes the meaningful use of digital technologies, „as tools that enable children to: access information, expression and presentation in the function of the research game; documenting different activities” (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja*, 2019: 21). An adequate relationship and culture of using digital technologies are very important. The role of adults is to carefully observe, encourage, and support children to go beyond a given level of knowledge and skills by giving them „instructions as useful directions in the use of information and communication technologies” (*Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja*, 2019: 40).

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Note:

– Photos from 1 to 17 were taken by kindergarten teachers Nela Dujčić and Višnja Pešić; PI: „Poletarac”, Odžaci.

Keywords index:

ICT – information and communication technologies – digital tools such as desktops or laptops, as well as devices for connecting to the Internet intended for data processing and communication, teaching and other content in virtual form.



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Digital tools – didactic educational programs enabling active learning, experimenting with devices, programs and media, distance learning, cooperation and communication in a virtual environment.

Digital competencies – knowledge, skills, attitudes, and values required when using digital technology in a variety of contexts for doing different jobs, problem-solving, communication, data management, creating of ideas or content in digital content, knowledge construction, independently, critically, creatively, efficiently, flexibly along with respect for ethical principles.



Steps towards a high-quality practice of recognizing and working with
gifted children

5 Steps towards a high-quality practice of recognizing and working with gifted children

Lada Marinković, Danica Veselinov, Maja Hmelak

Steps towards a high-quality practice of recognizing and working with gifted children

GIFTED instrument

Recognition of potential giftedness and then the process of identifying gifted children is the basis for providing adequate developmental support and educational context that supports giftedness and creativity. Creating instrument for recognizing the potentials of each child opens the possibility for creating an educational practice that is focused on the child and the educational process in a real context, and not on achieving pre-planned educational goals.

Here we will describe the result of the GIFTED project, which refers to the creation of an innovative instrument for recognizing potential giftedness in children aged 3 to 6 years. The basis for the creation of this instrument are the basic values of „Preschool Curriculum Framework: Years of Ascent” (2019) (hereinafter: Curriculum) in the Republic of Serbia, which define the context and understanding of children’s play, learning and relationships that provide and enable the well-being of the child.

In the Curriculum, the child is seen as rich in potentials, as an agent, a competent participant in their own learning and living. Also, special importance is given to the active participation of the child, and significant emphasis is placed on cooperation in developing the community of practice of children and adults, in which all participants are mutually transformed through interactions. The basic starting values of the curriculum are humanistic and relate to altruism, tolerance, morality and responsibility, creativity, initiative and innovation, cooperation, justice, positive personal, cultural, national, social and wider social identity.

At the age of 3 to 6, a child’s developmental potentials are most susceptible to environmental factors, and this age is considered crucial for shaping those competencies that are at the same time important for shaping giftedness in later life. The Curriculum provides a context for understanding the different potentials of the child and the opportunity to recognize potential giftedness, and to plan appropriate support for its development. Additional elements of the methodological-theoretical framework for creating the instrument are modern theoretical concepts and models of giftedness, Renzulli’s concept of three rings, the Munich process model and results of exploratory research, as an initial impulse for further steps within the GIFTED project on kindergarten teachers’ knowledge about the phenomena of giftedness and support under the GIFTED project (for more on this research, see Section VI of the guide).

Experts in the field of work with preschool children from three countries (Serbia, Croatia, Slovenia) - practitioners and higher education professors - participated in the creation of the instrument. The starting assumption is that the potentials for giftedness can be seen through specific elements of behaviour visible in the way a child participates and organizes his/her play, builds relationships with peers and the environment and how he/she learns.



Steps towards a high-quality practice of recognizing and working with gifted children

GIFTED instrument structure

One of the goals of the GIFTED project is to provide kindergarten teachers with an instrument that will sensitize and empower them to see, through daily observation, monitoring and work with children, one that shows potential giftedness.

The instrument is constructed and aimed at recognizing the characteristics of a potentially gifted child through three main domains: **play**, **learning** and **relationships**. Together, these components build a construct of well-being. Guided by the basic values, theoretical postulates and goals of the program, framework questions for collecting data on the child were formulated in the form of a semi-structured interview (appendix).

For each component, questions were defined to collect information about the child through an interview or description of the child's behaviour, at least two kindergarten teachers who have known the child for at least three months, at least one parent/guardian and if possible, interviewing the child's peers.

- For the field *Play*, 10 questions were defined for a kindergarten teacher, 6 questions for a parent and 6 questions for peers.
- For the field *Learning*, 8 questions were defined for a kindergarten teacher, 7 questions for a parent and 6 questions for peers.
- For the field *Relationships*, 7 questions were defined for a kindergarten teacher, 10 questions for a parent and 7 questions for peers.

The assumption is that through the answers to these questions, kindergarten teachers and parents will be able to recognize specific behaviours of a child that may indicate potential giftedness. Based on data collected from several sources (two kindergarten teachers, at least one parent and if possible, several of the child's peers from the group), data on the way a child learns, which interests he/she expresses through play and the way he/she builds his/her relationships with others, etc. can be obtained with greater certainty.

The final result of the collected data is summarized in the Summary table, in which kindergarten teachers identify the degree of potential giftedness, field/fields in which it is recognized and keeps notes on planned methods, procedures, support tools, the need for additional contacts in and out of kindergarten, as well as on planning further cooperation with parents. The instrument is planned to be tested by kindergarten teachers in all three countries participating in the project and the results will check the need to modify the question in relation to age subgroups (3 to 4 years and 5 to 6 years).

Play: Questions for kindergarten teachers

1. How does a child negotiate and coordinate with others during play?
2. How does the child decide and make choices during play?
3. How is possible to notice during play the examination and overcoming of stereotypes?
4. How does a child try out different roles, review and accept the rules of the game?
5. How does a child process events and use objects during play?
6. How does a child develop new play strategies through which he/she solves a problem in his/her own way?
7. How does a child symbolize his/her own experience during play in different ways (disguise, transform, draw, make models, use creative movement and speech)?
8. How does a child associate real actions, objects and actions with symbols?



Steps towards a high-quality practice of recognizing and working with gifted children

9. How does a child discover his/her own potentials during play?
10. How persistent is a child in the process of solving various problem situations?

Play: Questions for parents

1. How does a child organize his/her game when he/she is alone or with other children?
2. How does a child try out different roles and accept the rules of the game?
3. How does a child solve problems during play?
4. How does a child use objects during play?
5. How persistent is a child in the process of solving various problem situations?
6. What do you notice, how did a child develop through play?

Play: Questions for peers

1. Which of your friends solves different tasks the easiest and fastest?
2. Who comes up with a lot of new ideas?
3. Who asks the most questions?
4. Which of your friends has the most interesting ideas for play?
5. Who do you play with most often?
6. Why with him/her?
7. What games do you play most often?
8. Why this game/these games?

Relationships: Questions for kindergarten teachers

1. In what way does the child most often express his/her needs and feelings?
2. Is this way in some way specific to other children and adults?
3. What does a child think about himself/herself?
4. Is the child respected by his/her peers?
5. How does a child behave in conflict situations (when the conflict is about him/her or when a conflict situation happens to others)
6. How would you describe his/her involvement and participation in activities, decision making, making choices...?
7. How does a child's behaviour show that he/she understands the meaning of the activities in which he/she participates?

Relationships: Questions for parents

1. How does a child most often express his/her needs and feelings? Is this way specific to other children and adults?
2. What does a child think about himself/herself? (In which situations do you notice that he/she has high self-confidence and/or vice versa)
3. Is the child respected by his/her peers? In a situation when he/she is with peers, you notice that your child is... like?
4. How does a child behave in conflict situations (when the conflict is about him/her or when a conflict situation happens to others)
5. How does a child react to frustration, do you notice signs of empathy, how does he/she react to conflicts among others around him/her,...



Steps towards a high-quality practice of recognizing and working with gifted children

6. How would you describe his/her involvement and participation in activities, decision making, making choices,...
7. Do you notice something specific or different in comparison to other children in the family?
8. How much do you think he/she shows understanding and interest in everyday activities in family and wider environment?
9. How does a child manage his/her emotions and understand the emotions of others? Describe one or more situations.
10. Does your child know how to postpone his/her wishes and accept the wishes and expectations of others? Describe a situation.

Relationships: Questions for peers

1. Who usually knows how to make the best plan for something you need to do together?
2. Who gives the best ideas you most often agree with?
3. Which one of your friends understands the most how you feel and what you need?
4. Who is most ready and able to help if someone quarrels?
5. Which one of your friends usually comforts you if you are sad about something? How does he/she comfort you?
6. Who do you most often agree with when something needs to be decided?
7. If we went on a trip (to the forest, to the mountain), who could make the best plan for spending the day?

Learning: Questions for kindergarten teachers

1. What areas does a child show special interest in, if any?
2. What are a child's strengths in a given area (specific indicators)?
3. What are the easiest ways for a child to learn? List five keywords or phrases to describe the learning of the child.
4. Highlight a maximum of three of the offered specifics/peculiarities that you recognize as the most impressive in the child and briefly describe why you chose them: a) independence and self-confidence; b) nonconformism; c) curiosity; d) impatience; e) combativeness; f) preferences for imaginative behaviour (tendency towards the intuitive versus sensory); g) storm of ideas; h) tendency towards a different approach in solving problems, coming to a solution.
5. Do you recognize any manifestations of divergent production in a child? Which one? (briefly describe your impressions): a) originality (unusual, distant, witty, answers, ideas, solutions); b) flexibility (flexibility in problem-solving, organization; answers of different classes, multi-type answers, combining several aspects and different strategies in problem-solving); c) fluency - especially in verbal expression (productivity in many ideas, words, answers, consequences); d) elaboration (supplementing ideas with details, ability to elaborate the plan in more detail).
6. How does a child show his/her motor abilities and skills?
7. How does a child express his/her curiosity, openness and responsibility?
8. How successful is a child in learning (whether he easily acquires new knowledge, remembers well, retells, concludes...)

Learning: Questions for parents



Steps towards a high-quality practice of recognizing and working with gifted children

1. Does your child have any special interests and/or show any special skills and abilities? Which?
2. What does your child do especially easily, quickly, without any visible effort, in a short time?
3. With whom does your child share specific interests?
4. List five keywords to describe your child's learning.
5. What are the five activities of your child outside the kindergarten?
6. In which situations does the child express his/her interests, choose and take initiative?
7. In what ways are family members involved in your child's support and learning?

Learning: Questions for peers

1. From which friend can you learn something new?
2. How does he/she teach you about something new?
3. How would you describe him/her, to someone who does not know him/her?
4. Which friend do you like to listen to the most while talking about his/her experiences or inventing new stuff to do?
5. What friend from kindergarten usually makes you happy and why?
6. Is there anything that you could teach your peers, what is it?

Learning: Appendix – Stories for learning

Stories for learning are notes on the learning process created together by children and kindergarten teachers. They offer a holistic image on the learning of a child during a certain period and help to support learning (Krnjaja, Pavlović Breneselović, 2017). Through a story for learning the development of learning dispositions is followed. Learning dispositions are the following: curiosity, cooperation, persistence and responsibility. There are predefined indicators for each one:

Curiosity

- Develops special skills and knowledge
- Explores various identities („How is it to be someone else”)
- Uses different ways of expressing one's ideas
- Represents the same idea and experience in other ways using different expression means (drawing, image, movement, etc.)
- Explores new situations
- Initiates ideas expanding research
- Discovers different types of literacy

Cooperation

- Develops close friendships
- Accepts and respects diversity
- Carried out together with peers works on a task
- Reaches agreements and negotiates with others in activities and play
- Resolves conflicts constructively



Steps towards a high-quality practice of recognizing and working with gifted children

- Looks forward to one's own contribution and contribution of others
- Accepts help of others, follows instructions

Persistence

- Takes risks trying out new things
- Manifests persistence in problem solving
- Does not give up easily
- Has a constructive attitude towards mistakes
- Shows dedication in certain activities
- Adjusts and enjoys change, surprise or uncertainty
- Looks for alternative ways during the process of problem solving

Responsibility

- Can take care of oneself
- Takes personal responsibility in a group (takes initiative, gives instructions, requires engagement of others)
- Shows concern for others
- Respects rules
- Suggests actions aiming at environmental protection
- Recognizes justice in certain situations and shows readiness to resist injustice

Stories for learning are a tool for monitoring and noting child's development otherwise regularly used by kindergarten teachers. Structure content of stories for learning is: 1. a) photo, map, drawing, painting made by a child or a kindergarten teacher or b) note of a kindergarten teacher as a short description of a situation; 2. Noted child's comment on a situation, activity or product (what it is and why it is important to him/her); 3. Estimation of a kindergarten teacher what the noted situation shows in regard to learning disposition development and 4. a suggestion for further support and integration into the program (Krnjaja, Pavlović Breneselović, 2017).

Final table of *GIFTED instrument* abstract (content):

1. Strengths/characteristics/abilities:
2. Need for support (fields):
3. Planned means, materials, methods:
4. Needs cooperation with:
5. Ways of monitoring/evaluation (timeframe, who and what is monitored):
6. Forms of cooperation with parents:
7. Additional notes of a kindergarten teacher:

The suggested questions should serve as a frame for exchange of information between kindergarten teachers, receiving information from parents and increase of peers' participation in identification of potentials of the child the collected data refer to.

Kindergarten teachers are recommended to use the GIFTED instrument as practice adjusted frame for creating a climate and building relations in a preschool institution supporting and promoting potentials of all children, especially directed to those children who have (but not



Steps towards a high-quality practice of recognizing and working with gifted children

necessarily, clearly manifest) high abilities in a field, have special interests, high motivation and show specific features in creative expression.

Preliminary results of the pilot research in the application of the GIFTED instrument have shown:

- ✓ The questions are understandable to both kindergarten teachers and parents;
- ✓ There are dilemmas and difficulties in collecting data from the child's peers;
- ✓ The instrument is suitable for sensibilization of adults who are in contact with a child to recognize and encourage child's potential giftedness;
- ✓ Applicable in conversation with parents;
- ✓ Time-consuming for the kindergarten teacher;
- ✓ Instrument can be improved in cooperation with parents;
- ✓ Incites reflection of kindergarten teachers on giftedness encouragement and creation of innovative methods and programmes for potentially gifted children.

References:

- Godine uzleta: osnove programa predškolskog vaspitanja i obrazovanja* (2019). Beograd: Prosvetni pregled: Ministarstvo prosvete, nauke i tehnološkog razvoja.
- Krnjaja, Ž., Pavlović Breneselović, D. (2017). *Kaleidoskop: Projektni pristup učenju*. Beograd: Institut za pedagogiju i andragogiju, Filozofski fakultet Univerziteta u Beogradu.



Priorities in encouragement of giftedness from the angle of kindergarten teachers - initial impulses

6 Priorities in encouragement of giftedness from the angle of kindergarten teachers - initial impulses

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Priorities in encouragement of giftedness from the angle of kindergarten teachers - initial impulses

Results of the initial research

In this, final, chapter we will give a short overview of the results of the explorative research undertaken at the beginning of the implementation of the GIFTED project, whose aim was to establish the initial state of priorities in encouragement of giftedness and creativity of children ageing between 3 and 6, from the angle of kindergarten teachers. The effects of the results of the research can be found in initial impulses for further steps of work on the project. Guidelines created according to the research results have led to the following:

- creation of the instrument for the identification of potentially gifted children;
- conceiving a guide for providing support to giftedness and creativity intended for practitioners and parents
- creation of didactic games for encouragement of giftedness and creative potentials, suitable for everyday work with children in institutional and family contexts;
- design of kindergarten teacher professional development seminars and trainings leading to the acquisition of new knowledge and mastering of skills necessary for work with gifted children in a kindergarten.

In regard to its aim, the research tasks were the following:

- estimation of the importance of competencies for work with potentially gifted children from the angle of kindergarten teachers;
- estimation of one's own competencies (self-evaluation) necessary for work with potentially gifted children;
- to establish the extent to which the preschool institution offers possibilities for identification and support to work with potentially gifted children;
- to find out fields of work requiring significant improvement in order to reach high-quality practice and provide support to potentially gifted children.

The sample consisted of 830 kindergarten teachers (subjects) from Serbia, Slovenia and Croatia, employed in preschool institutions. The subject filled in the questionnaire conceived in such a way to establish the initial state of the attitude of a kindergarten teacher towards importance of competencies and evaluation of one's own competencies necessary for work with potentially gifted children. The competencies identified according to the questionnaire are harmonized with standards of competencies for kindergarten teachers, created according to contemporary scientific achievements, conceded to be key competencies for fulfilment of an individual in his/her personal and social life in the 21st century. Some of them are: knowledge of the holistic nature of a child's development: interdependence of social, emotional, cognitive, motor and speech development; knowledge on various learning strategies of children;



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knowledge on communication and participation of children; competencies for development of cooperation and learning community; competencies for professional practice development (knowledge on how to work in a context of diversity) etc. (*Pravilnik o Standardima kompetencija za profesiju vaspitača i njegovog profesionalnog razvoja*, 2018).

The questionnaire consisted of 15 different questions: diversity of questions reflected in both formulation and type of the question - open or closed, multiple-choice, ranking, and evaluation questions. The purpose of each question was to provide information from the standpoint of a kindergarten teacher on consideration of specific needs and possibilities for identification of potential giftedness in children and innovative approaches to work in kindergartens.

Having in mind the scope and immensity of the research and interpretation, the text below contains key considerations used as guidelines in the further course of the project. It is worth mentioning that the research results from all three countries were to the highest degree similar and there were no statistically significant differences which would require additional explanation. Therefore, we present the following:

- the results showed a poor representation of courses the subjects had attended during their studies (schooling), dealing with work with gifted children or identification, encouragement and development of giftedness and creativity;
- half of the total number of subjects had never attended trainings and/or seminars on the topic of giftedness and work with gifted children;
- the highest number (81%) of the subjects has in their previous experience has an opportunity to work with a number of potentially gifted children, ranging from 1 to 5 gifted children;
- from the aspects of self-evaluation, the subjects emphasized that they have to the highest degree mastered the competence referring to communication with gifted children (highest strength); the competence for work with gifted children (strategies, methods, techniques), was recognised as the weakest.
- in regard to general competencies and their ranking according to importance for work with gifted children the subjects estimated the competence referring to knowledge of diverse didactic strategies as more significant than other competencies; the competence implying knowledge of holistic nature of a child is estimated as slightly less significant than others (even though the average estimations were not drastically different);
- the subjects estimated that out of the available didactic strategies for work with gifted children, the most important are those referring to heuristic actions and use of heuristics, while the competence/strategy of involvement of children in creation of the plan and shared establishment of aims in project approached learning was estimated as the least significant;
- the level to which kindergartens are equipped with didactic means and materials for encouragement of giftedness and creativity is estimated as highest in the field of maths and arts, and as lowest in the field of speech development and PE;
- when the competencies from the broad spectrum of social-humanistic work with children are in question, the subjects evaluated the competence implying knowledge of emotional and social development, different relationships and communication skills as the one most important for work with gifted children;
- in view of themes/fields for the improvement of work with gifted children, the subjects attributed the highest importance to the theme referring to improvement in



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the field of didactic means and materials, immediately followed by the field whose focus is on didactic procedures and methods of work; the subjects perceived the field/theme referring to identification and recognition of giftedness as the least significant field for improvement (this finding could imply that they consider having a high level of knowledge in this field);

- the strongest correlation and the positive direction of correlation was found between evaluation of one's own competencies for encouragement of giftedness and creativity and guidance of gifted children. At the same time, a negative direction of correlation was found between general evaluation of one's own competencies and the field for improvement referring to creation of specialized programs. These findings imply that the subjects who evaluated their competencies as high consider the field of improvement of work with gifted children dealing with creation of special programs less significant; a positive direction of correlation was found in evaluation of one's own competencies and the field for improvements referring to didactic procedures and methods of work and didactic means and materials. In other words, the subjects consider improvement of these fields for encouragement and development of giftedness and creativity especially important.

Finally, a conclusion can be made that it is necessary to pay great attention to the field of knowledge and practical implication in the fields of identification, encouragement and development of giftedness in the case of kindergarten teachers - practitioners, thus significantly influencing multifaceted networking of all the agents who are engaged in work with potentially gifted children. The research will certainly open many other questions and send impulses for further reflection on the aim of refinement and improvement of upbringing-educational practice and affirmation of the complex field of work with gifted children.

References:

Pravilnik o Standardima kompetencija za profesiju vaspitača i njegovog profesionalnog razvoja, (2018). „Službeni glasnik RS”, 88/17 and 27/18.



7 Concluding considerations – guidelines

We will turn back to the structure of the guide for a moment. The texts and practical examples in the chapters point out that the process of upbringing and education of preschool children develops in a concrete context of each kindergarten through a real program. This program is made of the structure and the culture of the kindergarten, broader community (social-cultural context) and narrower community (immediate, local), participants in kindergarten practice (practitioners and families of children) and peers. Modern reaches of relevant sciences and scientific fields have emphasized the importance of an integrated approach to learning and development of children within the uniqueness and unity of experience (thoughts, feelings) and practical trying out in concrete situations. Recognition of potential giftedness and support is carried out in the provision of an immediate environment, as a setting inspiring and provoking children to explore and play, and insurance of participation of children in joint situations with peers and adults. Such an approach, which is here reflexively coloured and implies reconsideration of practice, opens up a path towards continuous improvement of quality of work in recognition and providing support to potentially gifted children.

Several concluding guidelines were highlighted during the creation of the guide, collection and interpretation of the vast material, which can also be messages to all participants in providing support to potentially gifted preschool children.

Some of them refer to the following:

- It is important to enrich study programs at higher education institutions for preschool teachers through creation of a number of courses focusing on the study of giftedness phenomenon. Future preschool teachers would in such a way during their studies and according to course content, have an opportunity to learn about specific features of potentially gifted children at an early age and to meaningfully connect theoretical knowledge with practical solutions;
- The results of the conducted research (outlined in chapter 6) have shown that it would be important to create training and seminars for professional improvement of practitioners dealing with improvement of competencies for creating strategies for giftedness identification and provision of support to potentially gifted children;
- Another significant aspect refers to more intense cooperation and establishing networks of practitioners, as well as networks of practitioners and families of children, in order to exchange experiences and understand perspectives of different participants in preschool practice;
- What is also necessary is further development and search for the instruments enabling early and reliable identification of potential giftedness and creativity of preschool children.

Through this project which turned out to be a kind of adventure, through cooperation of numerous adults contributing to identification and support to potentially gifted children, we have tried to give support to practitioners in this, still insufficiently investigated field of educational and upbringing support to the youngest. We hope that the contents of this guide will be inspiring for all those who want to create an atmosphere suitable for fulfilment of different types of giftedness.

Authors



8 Keywords index

Active participation – active participation and cooperation. A child actively participates in decision making and selection of different factors related to his/her development.

Children's play – the highest form of research characterized by flexibility, speculation, gameplay, and arbitrariness, and thus make it more than an activity. Depending on the role of an adult, it is most often based on open, expanded and guided play, which includes constructor games, didactic games (and games with ready-made rules), symbolic games (imagination and roleplay), motor games and similar. Playing, children explore, and play intertwines with learning, and that is why we say that play is the highest form of research.

Cognitive necessity – a notion introduced by a Slovenian theorist of art and a philosopher, the professor at the Academy of Visual Arts in Ljubljana, implying natural need (necessity) of a child to express him/herself artistically, because only in this way her or she can explain visual phenomena and laws ruling the three-dimensional world we live in.

Conversational Games – language games with whose help children are encouraged to talk and communicate in a form of a game with an object, creature or phenomenon; games in harmony with the abilities and needs of gifted children, inciting awareness of the importance of speech as a basic and most common human activity of establishing and maintaining communication.

Creativity – process, product, person, environment; ability to create new and original ideas.

Didactics of the gifted (didactics of enabling) – modern starting points within postmodern philosophy and didactics, based on pluralism of ideas, respect for different views and models in creating a curriculum to support and empower gifted children.

Didactic toys – toys that have the function of learning and development.

Didactic robot – a didactic tool whose movement is directed by small steps or commands in the form of code. More precisely, we call this process coding, which we can later upgrade to programming. The guidance can be done at the beginning with the help of the application that the child uses on a mobile device.

Different types of early literacy – a symbolic expression of children in different ways (using letters, numbers, various symbols to create drawings, maps, schemes, sketches, etc.) in meaningful situations.



Digital competencies – knowledge, skills, attitudes, and values required when using digital technology in a variety of contexts for doing different jobs, problem-solving, communication, data management, creating of ideas or content in digital content, knowledge construction, independently, critically, creatively, efficiently, flexibly along with respect for ethical principles.

Digital tools – didactic educational programs enabling active learning, experimenting with devices, programs and media, distance learning, cooperation and communication in a virtual environment.

Drama plays – creative plays in which the means of expression are the following: word, movement, sound; they provide children with limitless possibilities to be creative and imaginative, to express their ideas, experiences, to express their creativity.

Elaboration – completeness and elaboration of the idea by adding different elements that complete the whole.

Emotions – relations of a person towards an object or events including both mental state and emotional expression.

Environment as a „third kindergarten teacher” – a flexible environment that inspires and motivates children and kindergarten teachers to research and learn together.

Flexibility – the ability to change the direction of opinion, the outcome of which is a new solution.

Fluency – the number of ideas that a child produces.

Formative monitoring – defined as a pedagogical dialogue for common assessment and monitoring of a kindergarten teacher and a child, control and guidance aiming at more suitable and higher quality of an individual's development. It is a process leading to improvement of learning.

Gamification – learning and problem solving through play. Preparation of teaching content that children get to know and complete through play or game-related activities.

Giftedness encouragement context – a network made up of the environment (inspirational/stimulating environment), strategies and actions of kindergarten teachers, parents and other adults, organization, climate and pedagogical tact to support the gifted.

Heuristic strategies and procedures – procedures related to adults and children in the research of various phenomena in a different and personalized way. Procedures that do not guarantee a solution in advance, but provide an opportunity for adventure and finding a solution in a different and unusual way. In every heuristic procedure, the following are important: the plan, monitoring and evaluation of what has been done in relation to the plan, in order to improve the practice.



ICT – information and communication technologies – digital tools such as desktops or laptops, as well as devices for connecting to the Internet intended for data processing and communication, teaching and other content in virtual form.

Imagination – thoughtful creative ability to create in thinking process sufficiently clear notion on forms, characteristics and other features of a thing or object, relations between things, or between people, which are yet to emerge.

Integrated approach to learning and development of preschool children – integrated learning is a process related to the meaning that the child finds in learning (holistic approach), as opposed to learning through separate individual contents. Enabling children to learn in an integrated way means enabling and gaining rich and diverse experiences and learning through relationships with peers and adults. This is achieved by providing an environment for learning in kindergarten, as an inspiring and provocative environment for children to explore, and by ensuring the participation of children in joint activities with peers and adults and the local community.

Intensity/being overexcited – excessive and overwhelming feeling in emotional, cognitive, sensory, imaginary and psychomotor fields in the sense of strong reactions to stimuli, but with a positive connotation.

Kindergarten teachers' role – actions of kindergarten teachers during open, extended and guided play encouraging children's creative activity, providing children with a variety of sensory experiences and creating opportunities for learning and exploration.

Learning environment – space unit for sound and movement, room structured so that it is inspiring and provoking, calling children to play, explore, learn and cooperate, created through play and planned learning situations, projects, as well as through joint engagement of children, kindergarten teachers and parents, having meaning, purpose and sense for children.

Lifelong learning and professional development – imply acquiring new and improving the existing competencies significant for the improvement of educational-upbringing work.

Motor play – play connecting fields of motor skills with cognitive (perception, problem-solving, memory, attention) and conative (behaviour, emotions, motivation) fields; processes of functioning of organism with human social dimension.

Music improvisation – creative activity of a child, without prior preparation, oriented before all towards the process, rather than the product, addressing child's need for exploration, expression and creativity.

Originality – refers to the novelty concerning the child and/or the environment and the rarity in appearance.



Paradigmatic language games – a type of language games including invention, poetic imagination and combining (all that has equivalents or appears in children's symbolic game), expressed through shortening (trimming) or elongation of words, irregular grammar constructions (irregular plural, inappropriate gender and cases of nouns, omission of functional words – prepositions, conjunctions, auxiliary verbs); paradigmatic language games can be found in contemporary poetry and prose for children.

Personal plan of professional development – the plan of activities created by a preschool teacher for him/herself and according to his/her own professional interests in order to improve his/her professional practice.

Physical environment – materials and tools for sensory experiences of a child.

Potential giftedness – significantly more advanced in comparison to peers indicating the possibility for production of high achievements in one or more fields.

Potential creativity – the developmental potential of the child to produce and practice new skills and abilities, in original ways.

Productive, manifested, fulfilled giftedness – intellectual potential, motivation and creativity reflected in the products of a person.

Project learning – a method of learning in which children can be actively involved in the learning process through work of life and personal topics.

Reflexive practitioner – the term is used by Schon (1983) to describe the work of teachers who reflect on their behaviour, analyse it, act thoughtfully, not making decisions hastily. A kindergarten teacher, as a reflexive practitioner, makes links between his/her own practical work and theoretical knowledge, relates theoretical knowledge to practice, analyses one's own work from the standpoint of theory and the viewpoint of one's own experience and construes one's own model of professional engagement.

Socioemotional development – developmental process oriented towards social interactions with others and recognition, expression and regulation of one's own emotions and coping with emotions of others.

Standards of competencies – descriptions of essential knowledge, skills and attitudes preschool teachers should have and demonstrate in their professional work. They refer to the following: a) Teaching and learning; b) Support for development of a child's and learner's personality; c) Communication and cooperation.

TCAM – Thinking Creatively in Action and Movement (Torrance, 1981).



Verbal syntactic games – drama plays, i.e. language games with certain rules using drama strategy aiming at acquisition of a whole range of abilities and skills (communication skills, trust, imagination, oral and listening skills, cognitive capacities, teamwork...); they do not require prior experience, but can contribute to identification and encouragement of giftedness.

Visual thinking – an aspect of human thinking dealing with visible forms, colours, spatial relations. This is a process enabling getting to know visual worlds and is an inevitable tool in getting to the essence of spatial relations of visual phenomena.



9 Excerpts from Peer Reviews

The general impression of the texts collected in this publication is that they have several characteristics which impose themselves as of special value. Before all, the authors have made a considerable effort not to be reduced to practiciness, providing examples with unambiguous determinations of theoretical foundations. This is done in a straightforward way, using uncomplicated and understandable style, with the support of the keywords index following each article and references to be used for further reading about the issues dealt with in the texts, which can support its understanding considerably at the same time opening up possibilities for the reader to sink into deep layers of the meaning of the phenomenon of giftedness, differences in theoretical concepts, conceptual circumstances... and provide a comprehensive grounds for deeper understanding of giftedness, considered in this guide book from the standpoints of the most of basic fields (cognition, affective sphere, creativity, language development, motor development...) relevant for the early years.

Grozdanka Gojkov, Academician

The authors give relevant theoretical standpoints on the nature of giftedness, its identification and monitoring, descriptions of key giftedness domains, as well as an abundance of described approaches, tools, techniques and activities intended for potentially gifted and gifted children. The manuscript is a relevant source of information not only for researchers, practitioners and parents but also for project managers and project writers who also want to deal with the field.

Ivan Alagić, Psychologist

Covering the issues ranging from theoretical grounds of giftedness context, developmental characteristics of the gifted, link with current programs and conceptions to finding the place of giftedness in child's play, the guidebook offers the reader a comprehensive idea of the importance of detecting potential giftedness in children, as well as concrete situations and tools which can be applied in their practice, or as a support for parents to better understand and encourage their child when they notice that the child is potentially gifted. The book is significant support to practitioners in all three systems and their introduction of contemporary theories in preschool upbringing and education, and an excellent underpinning for a paradigm shift in the ways child's competencies are supported.

Tanja Rajačić, kindergarten teacher

The guide will be of great help to kindergarten teachers and professional associates in preschool institutions as a compendium giving in one place a comprehensive treatment of potentially gifted children in a professional, consistent and creative way. Finally, what should be especially emphasized is an innovative instrument for giftedness identification published in this book, which is for the first time intended for those working in the system of preschool education. Since there are no standards at the level of preschool education and upbringing construed specifically for kindergarten teachers who are supposed to recognize potentially gifted children, the published instrument is a great support in practical work and with its structure will help many diagnose a potentially gifted child.

Dobrila Radeka, Professor