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EDUCATORS ORGANIZATION AND PLANNING FOR OUTDOOR PLAY: ACTION RESEARCH

***Abstract:** The research highlighted the need to equalize the importance attached to the stimulating environment in indoor and outdoor spaces and the way in which educators organize these spaces, plan activities and incentives in them, and strengthen the educators' competences for organizing and planning outdoor stays. Through direct insight into the practice, it became evident that outdoor activities were rarely organized and planned and, apart from large static equipment, the yard was free of other incentives. Most often, educators only monitored children's behaviour, warning them to be careful and obey the rules. Therefore, an attempt was made to raise educators' awareness by introducing changes in the layout and the organization of the courtyard and by forming different external centres of activity. The research shows changes in educators' attitudes and children's behaviour in relation to their initial state.*

***Keywords:** action research, outdoor play, educators' attitudes, stimulating environment*

INTRODUCTION

Spending time outdoors, whose primary benefit is health and more diverse movements of the child, needed for normal and complete psychophysical development, is planned in all preschools. Movement is the basis of brain development, and the impact of modern society and lifestyles on reducing the amount of time spent in free movement and being outdoors has only revealed the consequences on an individual and social level. According to Mårtensson (2010), there is a need nowadays to explore the various forms of play involving physical activity, addressing the place where the play takes place and the intensity of the play in relation to that place, as well as the level of impact that this type of play has on children's health and well-being.

This paper is trying to emphasize the importance of a stimulating environment that is not limited to lounge rooms and to highlight the opportunities it provides for the overall development and authentic learning of a child while spending time outdoors. Bilton (2010) emphasizes that an educator will certainly start organizing and creating different activity centres rather than leave the room empty after entering it. Therefore, Bilton (2010) states that the first step in organizing an outdoor stay is to equalize the importance of indoor and outdoor space in kindergarten, primarily in the mind of educators. The interior and exterior spaces shouldn't be viewed as separate, but as one integrated unit whose spaces complement each other. Accordingly, the purpose of this paper is to emphasize the need to equalize the importance of indoor and outdoor space for the full development of children in the minds of educators,

which should also balance the way educators organize these spaces and plan activities and incentives in them.

THE IMPORTANCE OF THE STIMULATING ENVIRONMENT

By development the child psychology supposes the sequence of changes in a child's traits, abilities, and behaviours that make the child more agile, able, more social, and adaptable. Development is a dynamic and flexible process that takes place in a social context and through which inheritance and environmental influences interweave (Starc, Čudina-Obradović et al., 2004). However, child development is not possible without the child's own activity. By activity, Maleš and Stričević (1996) refer to all actions of the child on the motor and mental plane that are necessary for intellectual, sensorimotor and socio-emotional development. Gopnik, Meltzoff, and Kuhl (2001) offer a developmental picture of babies who are born with the urge or need to understand what is happening around them and actively intervene in the world around them. His own activity enables the child to get to know the world, but also to learn about himself, his skills and abilities, and according to Maleš and Stričević (1996), this awareness of himself, of his own competences, helps him to develop a confident and independent personality. In kindergarten, the child should also learn through practice, naturally, participating in daily activities in a stimulating, pedagogically prepared environment (Miljak, 2009). The organizational conditions of the kindergarten should therefore ensure optimal contextual factors of development - the material environment and the social environment. The National Curriculum for Early and Preschool Education (2014) defines a stimulating physical environment as part of a kindergarten culture and emphasizes that it is a fundamental and necessary source of learning for children which learn by doing and exploring and interact with objects and people in their environment and offers guidance which need to be followed in order to achieve a quality space-material environment.

ORGANIZATION AND PLANNING OF OUTDOOR STAY

Outdoor education policies and practices are primarily related to a specific place and time and different outdoor living traditions are created in relation to specific geographical conditions as a result of specific cultural, social, demographic and political circumstances and contexts (Waite, 2017). Numerous recent foreign studies of early and preschool education address the comparison of outdoor stay and its benefits on the overall development of the child and the child's play in nature versus kindergartens' backyards (Bjørger, 2016; Luchs and Fikus, 2013; Ernst, 2014; Morrissey, Scott and Rahimi, 2017; Agostini, Minelli, and Mandolesi, 2018) or how the introduction of natural materials and the more natural landscaping of kindergartens affect children's development and play (Wishart, Cabezas-Benalcázar, Morrissey, and Versace, 2018; Brussoni, Ishikawa, Brunelle and Herrington, 2017; Nedovic and Morrissey, 2013) and show that children prefer to stay in the natural environment or yards with introduced natural materials, and they have

more opportunities and benefits for overall development because they have more diverse incentives to move and cognize, have better quality play that lasts longer and is characterized by more diverse socialization and communication among children, they pay attention and keep the focus on the game longer than in more traditional backyards. In contrast, in our region, researches on children's outdoor stay in early and preschool institutions have only recently started to include their stay in nature. Kos (2010) researched stay in natural settings in Slovenian kindergartens and found that out of 78 interviewed educators, more than 80% do not spend more than 4 hours a week in natural settings with children, and most of that time they spend walking. Accordingly, this paper focuses on the existing theory and practice of the Croatian preschool education system, looking at the place of outdoor stay within this context.

THE ROLE OF THE EDUCATOR

Being outdoors allows children to explore the world directly and to experience natural phenomena, have more space and freedom to develop a variety of symbolic games and to build on a larger scale, also relationships with peers and adults are different - children are less involved in conflict, less frustrated and it makes it easier for them to push the limits of their abilities without fear of adults' alerts about loudness, messiness, etc. (Maynard and Waters, 2007). Also, according to Hansen (2001) outside of the kindergarten (in the yard or playground, but also in the neighbourhood, parks, gardens, etc.) children can learn in all developmental areas (physical, socio-emotional and intellectual development), and educators can help their development by observing them, working with them and planning activities. However, access to open space alone is not sufficient in itself to bring about such development and benefits of outdoor stay; various studies (Maynard and Waters, 2007; McClintic and Petty, 2015; Blanchet-Cohen and Elliot, 2011; Copeland, Kendeigh et al. ., 2012; Acer, Gözen et al., 2016; Kalpogianni, 2019) show that the way adults use and organize outdoor nursery space, is equally, if not more important, which is why the educators and their attitudes regarding the outdoor stay play the key role in organizing and planning outdoor stays. Maynard and Waters (2007) investigated how South Wales educators use outdoor stay, where they, when interviewed, said that obstacles to more frequent and high quality outdoor stay were fears about child safety and injuries, parents' complaints about dirty clothes and possible illness caused by weather conditions and the ratio of the number of children to adults, which makes it much more difficult to monitor children in the open air, while observing that it is sometimes an opportunity for educators to have lower levels of engagement and chat, and when planning activities, they are characterized by the same form of work as in indoor spaces. Similarly, McClintic and Petty (2015) did a qualitative study looking at how educators' attitudes and practices affect outdoor function, and stated that educators perceived their role as outdoor supervisors - looking after children's safety, respect the rules in relation to others and in relation to the use of available materials and equipment - which often inhibits children's play and natural learning. On the other hand, in Canada Blanchet-Cohen and Elliot (2011)

explored the perspectives of children and educators on participation and learning opportunities outside kindergarten through four early childhood education programs and stated that educators were more likely to assume the role of co-workers in the learning process when outdoors than in the living rooms because there they have less control over their surroundings and children's discoveries, so they often have to be flexible without knowing where the children's interest, research and questions will lead them.

The influence of the organization and planning of a good physical and physical environment is in proportion to the educator's perception of children – good conditions encourage children to partake in better activities and enable the educator to observe better and change their view of children as active and competent persons, and this perception is the basis for building an educational approach that encourages such behaviour in children (Vukašinić, 2016). Thus, the attitudes and beliefs of educators about outdoor stay directly influence the experience of children in kindergarten, and if the educators do not have a positive picture of the above, children's experience and development will not be optimally realized (Stevanović, 2003). Copeland, Kendeigh et al (2012) in a study of physical activity of children in early childhood care establishments, with focus groups being Ohio educators, showed that educators, while recognizing the benefits and barriers of outdoor stay, ultimately realize they are the ones who decide whether children should stay outdoors or not, how much, when and how, what materials to use and in what parts of the playground they can play. The authors conclude that this can cause children to have very different experiences, even within the same kindergarten, because their stay outdoors depends solely on the beliefs and attitudes of their educators.

DESIGNING OUTDOOR SPACE AND ACTIVITY

According to Hansen (2001), the most important role of open space is to stimulate physical development, where physical education activities primarily stimulate the development of large muscles and develop skills and the need for permanent physical activity, while providing an opportunity for socialization, learning the rules, understanding interdependencies, developing self-esteem, intellectual development and problem solving. In addition, when outdoors, children develop emotionally - developing self-awareness and positive opinion about themselves, facing new challenges, where they perceive what their bodies are able to and how they can control their movements. Socially and emotionally, children are not so inhibited while being outdoors, they are easier to talk to and they interact better with each other and with educators, and they express feelings more easily because outdoors it is allowed to speak out loud, sing, shout, etc. (Hansen et al., 2001). The intellectual and sensorimotor experience of being outside has a positive effect on longer attention, greater perception power, and arouses natural curiosity and questioning of cause and effect, which naturally enhances language development as well as imagination and creativity (McClintic and Petty, 2015). Most of the authors mentioned above (Miljak, Sevanović, Slunjski, etc.) reiterate that educators must observe children's

development and plan appropriate activities according to its level, with emphasis on encouraging self-organized and self-initiated activities of children through a quality space-material environment. However, even though they rarely dwell on the issue of outdoor design, it can clearly be read from the principles and values they are guided by that such an attitude should extend to outdoor spaces as well. According to Hansen (2001), educators should consider the outdoor space a bit different from the living room, and in this sense they must also provide children with all the opportunities for progress in all developmental areas. Educators encourage children's self-initiated and self-organized activities starting by designing the working area that motivates work in small-groups, pairs or individually, and by selecting materials of interest to children by suggesting teamwork, thus changing the overall atmosphere visible in the behaviour of children and educators, since the layout and organization of the space have a direct influence on them (Miljak, 2009).

Acer, Gözen et al (2016), in a large qualitative study in a kindergarten in Turkey, observed the influence of the physical space of the living room on children's play. Observing and recording the game before and after decorating the room - the introduction of activity centres and new diverse materials - showed how children's play was changing. The game before the decoration of the room was characterized by a shorter duration of time, continuous movement around the room with a faster change of activity / game and a greater number of unfinished activities. After decorating the room, the children's play was of a longer duration with more completed activities, the quality of symbolic, manipulative and constructive play improved in which a greater variety of topics and better communication among children was observed, and the number of educators' interventions in the children's play decreased and the number of interrupted activities / games caused by various conflicts between children also decreased. Many English-speaking authors (Hansen et al., 2001; McClintic and Petty, 2015; Bilton, 2010; Garric, 2009; White, 2007) also advise designing different centres or corners of outdoor activity. In doing so, they emphasize that the child's need for greater and more varied outdoor movement should be kept in mind primarily, which should not be prevented by excessive and unnecessary or dysfunctional enclosure. Domestic authors (Miljak, 2009; Slunjski, 2008, 2016; Maleš and Stričević, 1996; Stevanović, 2003) also recommend organizing space into activity centres, although they do not directly mention outdoor space, everyone writes about the arrangement of the entire nursery, including all its parts. Czalczyńska-Podolska (2014) investigated the impact of space planning on children's play on 10 California public playgrounds and showed that the division of playgrounds into zones (open space, space with large props and space for quiet sand games) has a positive correlation with longer time and stimulates a more varied game - symbolic, functional and constructive, while playgrounds without such zones or with indivisible zones stimulate more functional play than others and a shorter game with faster changes of activity. The curriculum for kindergartens (from the Step by Step program, Hansen et al., 2001), which suggests the basic centres of activities to which the outdoor space of the kindergarten should be divided is in line with this. These are different types of playgrounds and space for climbing, space for digging

and playing with water, sand and mud, space for driving, it is also suggested to create a small garden for planting plants and watching their growth, which encourages the whole learning of children throughout the year, and advised to organize a quiet space, preferably in the shade, for the children to rest there, but also where a variety of quiet group activities can be planned that can be combined with activities from the living room, connecting both spaces, indoor and outdoor. That way, this quiet space can become a research centre, a fine arts centre, a centre for family-drama activities, a centre for initial reading and writing, etc. Some authors from the English-speaking area (Bilton, 2010; Garric, 2009; White, 2007) believe that these centres, as well as many others, should always be organized simultaneously outdoors, but not all kindergartens have sufficient space or resources to realize this. Therefore, Hansen (2001) recommends combining them, that is, educators should plan for the landscaping by monitoring and documenting children's activities so that the centres can be easily converted depending on materials and the way they will be offered to children. As outdoor spaces are most commonly shared by two or more groups, arranging them always requires joint planning by educators of different groups, but at the same time provides more opportunities for connecting groups in indoor spaces as well. This decreases the isolation of educational groups, which has been widely used in practice so far, and which is about to be changed in modern concepts based on a humanistic approach that represents openness, flexibility and greater freedom in communication (Miljak, 2009).

METHODOLOGY

THE RESEARCH PROBLEM

The research problem has not been pre-determined, but has been recognized in practice through collaboration with educators in attaching less importance to organizing outdoor stays and neglecting outdoor work planning compared to planning for living room work. The problem stems from the irreconcilable material conditions and environment, the attitudes and implicit pedagogies of the educators about outdoor stay, the neglect of the educators' role in organizing the outdoor stay, and the lack of understanding of the theoretical cognition of the importance of organizing an outdoor children's stay and, accordingly, the importance of related work-room planning and outdoors for holistic development and learning. Therefore, the problem of research is defined through the question of how to improve the development of the educational process in kindergarten through the organization and introduction of changes in the physical and material conditions of the kindergarten courtyard, and through the development of educational competences for planning an outdoor stay.

THE GOAL AND THE TASKS OF THE RESEARCH

The aim of the research was to strengthen the competences of the educators for organizing and planning the outdoor stay, that is, to create a stimulating outdoor space-material environment for the realization of the educational process.

The tasks of the research were to raise awareness of the importance and benefits of quality outdoor stay for the overall development of children, and to raise awareness about the organization and design of outdoor space for quality outdoor stay, and to encourage educators to design diverse activities and to reflect on their own role in organizing outdoor stay.

RESEARCH METHODOLOGY

In accordance with the recognized research problem and the set goal and tasks, conducting an action research with elements of an ethnographic approach was chosen for the realization of the work as a qualitative approach that places emphasis on the work process rather than its result.

According to König and Zedler (2001), action research is not primarily focused on cognition, but rather on solving practical problems. In education it is also focused on personal development, on improving practice, and on improving the quality of the educational process and the quality of the overall institution in which it is conducted (Kember, 2005). Action research is in fact a self-reflective research undertaken by the participants themselves, introducing changes in their own practice so that they could learn from the consequences of these changes (Slunjski and Burić, 2014). It is characterized by a circular (or spiral) process that involves the stages of analysing, planning, introducing change, monitoring change, and reflection and allowing it to return to previous stages as needed (Kember, 2005). Data collection techniques are generally qualitative - systematic process observation, analysis of documentation or ethnographic records, record keeping, etc., although they can also be combined with quantitative data. The data obtained are usually analysed by selecting, summarizing and grouping them in relation to the set research problem (McNiff and Whitehead, 2006).

In accordance with the chosen research approach, the questionnaire on the attitudes of educators, group qualitative interview with educators, access to pedagogical documentation, photographs, audio and video, and keeping notes in the researcher's diary were used to collect data and systematically monitor the whole process. The survey was conducted from the beginning of March to the end of June 2017, and took place in a local facility of a big kindergarten cluster in a large city in the southern part of Croatia. The non-purpose research facility is located in a residential urban settlement on the ground floor of a residential building and contains two living rooms with one common yard. Both kindergartens' groups have a full-time, 10-hour preschool program, attended by 25 children aged 3 to 7 in each group, and four educators from both groups participated in the study. Out of all educators who participated, three were about the same in terms of experience and age, while one educator was significantly younger and with far fewer years of experience.

RESULTS AND DISCUSSION

The analysis of the current situation was carried out through systematic observation and assessment of the teacher's competences in the field of organizing and plan-

ning for outdoor stay, analysis of pedagogical documentation from previous periods, questionnaire of the self-assessment of teachers' attitudes about the educational process in the open air, group qualitative interviews with educators, video documentation of existing physical and material conditions and monitoring and documenting the behaviour of children during their stay outdoors. The research was conducted through three phases of research, each phase consisting of a field of action, monitoring and reflection at the end of that phase.

ANALYSIS OF THE CURRENT SITUATION

State of the concrete courtyard was recorded, in which only the fence and static props were painted, while the rest seemed gloomy and inconsistent with the modern pedagogical conception that kindergarten spaces should initially be at least visually attractive to children (Slunjski, 2009). Furthermore, through a direct insight into the practice, it became evident that both educational groups go out into the common courtyard at the same time and return to the living rooms at the same time, allowing children to communicate and socialize more freely, with so many children staying in the open air most often one hour while activities were rarely organized and planned - the children were almost exclusively in leisure activities. In addition to the existing static yard equipment (swings, slides, climbers and sandboxes), the educators only brought balls and sometimes a table and chairs to prepare paper and crayons. An insight into the older pedagogical documentation further indicated that the educators sometimes organized polygons to encourage physical development, play with water, creative activities such as painting a large canvas, etc., but this was not noticed by direct insight into practice at this stage. Most commonly observed were situations in which children "scrambled" for access to these props, so educators spent most of their time outdoors monitoring the behaviour of children and alerting them to safety, monitoring compliance with the rules in the use of props, and directing children to resolve their disputes, so they spent less time accompanying, documenting, or encouraging different activities of children.

Also, for the purpose of assessing the current situation, the educators received a self-assessment questionnaire from which their views on children, on the role of the physical environment in the educational process, and on the organization and planning of outdoor stay were obvious, and a group qualitative semi-structured interview was conducted. The data from the questionnaire were also examined in terms of frequency, which served as a benchmark in the analysis of qualitative data.

By directly monitoring the behaviour of children in the open air and in the living rooms, more differences were observed in the behaviour of children when staying in kindergartens and outdoors. In the yard the children used to play in large groups, rarely individually or in pairs. For the most part, they were louder, noisier, often sang, and retention in different activities was shorter and they would change activities more frequently. But it was also noted that they were more likely to have quarrels or even conflicts that sometimes would turn into physical (especially with younger chil-

dren who had not yet developed emotional self-control), were less willing to share toys, had less patience while waiting for access to one of the static equipment and more often sought the intervention of an educator - as opposed to being in a living room where, in similar situations, they were more willing to share and collaborate, and more often independently solved problems in relationships and did not seek the intervention of an educator. It could be interpreted as a great difference in the layout of the living room and the yard. While the rooms are spaciouly remodelled and organized into different activity centres that encourage activities in smaller groups and are rich in the variety of materials available, the yard is left empty, with few props or materials available to a large group of children. This doesn't encourage their self-organized and self-initiated play, learning or exploration, and often for children with various developmental and emotional abilities presents a challenge that they are unable to solve independently. Thus, frustration, nervousness, or anger in children which they could not resolve, could be observed so various undesirable behaviours often occurred. However, in comparison to the answers from the interviews and the questionnaire, it can be observed that, contrary to the above, the educators perceive staying in the room as a source of anxiety, and going out as a way to deal with the accumulated stress.

The information obtained from the questionnaire shows that all educators understand the importance of the physical environment and the relationship of children to the objects in it for their overall development and authentic learning, but also shows a disproportion in the importance of the influence of outdoor space on the same. Although all educators agree that the exterior of the kindergarten should be a complete environment that meets all the developmental needs of children, direct insight into the practice has shown that the external environment is not satisfactory and does not encourage quality overall development of children. In the interview, the educators cite material conditions as obstacles: *"It is difficult in a small kindergarten to have ready materials, we simply have nowhere to store them, to save them, so we have to take it all outside first thing in the morning, then after the children go back in take it inside again, and it is already near lunch time."* But the replies to the questionnaire show that part of the educator does not consider outdoor and indoor space as equally important for encouraging children's learning, which in practice is reflected in the significantly less present planning of outdoor incentives and activities. The same is evident in the different responses from the interviews in which educators focus primarily on the role of outdoor stay in the physical development of children, and much less frequently mention other developmental areas. An attitude of distrust in children's abilities is also visible, instead of recognizing the importance of a carefully planned and prepared environment that will provide an opportunity for the development of abilities, which was observed with direct insight into the practice and older pedagogical documentation, and showed a visible difference between the identified needs of children and meeting them.

Also, the researchers' insight into the practice shows that outdoor stay is usually not organized in colder temperatures, especially in the wind and never in the rain, and

lasts very briefly when the weather is sunny but cold. Although they consider their cooperation with their parents to be “*excellent*”, the interview responses show a fear of the parents’ reaction as the main problem: “... *it gets cold, the children run, they sweat and then they get sick quickly, and then parents can come with complaints... how to satisfy everyone? Kids need movement, fresh air, we can’t overprotect them.*” But with the researchers’ insight into the practice and pedagogical documentation, it was observed that the approach of the educator to the organization of the outdoor stay does not change depending on the weather conditions, only shortening the time spent in the yard. For example, educators have rarely used the opportunity that the cold but sunny weather offers them for walking together with the children and exploring changes in nature or getting to know the local community.

In all the data processed, it was noted that educators consider the time and availability of outdoor stays fixed for all children. Researchers in groups noted that children often need isolation or rest from outdoor activities, so they would often enter the hall and lobby of kindergartens and play or talk in smaller groups, but in those situations the educators would very quickly invite them back into the yard “*because they can’t be alone inside.*” There was an unsatisfactory level of competence of the educators in assessing the needs and responsibilities of the children, and an unsatisfactory mutual organization of the educators - all four educators were present during the outdoor stay, but most of them stood together, in a group, in one place, instead of distributing in the yard and when needed, indoors.

The educators are aware of the potential that outdoor activities offer for their overall development, as shown in the interview example: “*And they are very creative, several girls have recently started building a sand castle, so the boys have joined them and built a whole palace ... It was very interesting to listen to their conversation, then we encouraged them to think about Diocletian’s palace, they all contributed their opinions, what they saw when they were out walking with their parents on the seafront, what it was for, for example the basements, why the doors are so big, etc. They had really interesting ideas and the sand palace later served them as a symbolic game. Later, when we returned to the room, the children in our group even rebuilt a dice palace in the construction centre.*” But here, as with the other views presented, one can see an insufficient level of organization and planning for outdoor stay, which is reflected in their practice. With the presence of the researchers in the group, it was noticed that the educators did not organize the yard space and only rarely planned some activities, mostly one day activity, which most often related exclusively to the physical development of children, such as a task polygon or playing ball with certain tasks. In most cases, only older children participated in such activities, while for younger children the tasks were often too challenging and they would give up quickly and no other activities or materials were planned for them. It has been noticed that in practice, educators most often do not adequately approach the organization and planning of outdoor activities, because in addition to the planned joint activities in the form that looks like front work, they leave this time for children’s leisure activities, but they don’t make the space organized and incentive so

those activities could develop qualitatively. The following are the obstacles to organizing and planning in an interview: *“We have a lot of ideas, but it is often impossible to realize them as we would like due to material conditions”* or *“We would also like to have more props to stay out there for organizing various games and training grounds, but we have nowhere to store them, the nursery is small, some outside storage would be ideal.”* However, it can be implicitly stated in the interview that the educators did not realize the need for the organization of the outdoor space and the importance of the organization of the outdoor space, and perceive the yard as a space for free physical activities where the children will *“rest”, “run”, “get out into the fresh air”* rather than as a possible stimulating environment for authentic learning and overall development, equally valuable and complementary to the environment they organize and plan in the living rooms.

THE FIRST PHASE

The scope of the first phase included raising awareness of the importance of outdoor stay, raising awareness of the role of a stimulating outdoor environment for overall child development and authentic learning, encouraging better organization and planning of outdoor stay, and introducing educators to ways of monitoring and documenting children’s behaviour in relation to spatial and material yard conditions through four shared reflections with educators. By participating in the reflections, the researcher observed and recorded the observations in a monitoring journal for the purpose of collecting data.

The aim of the first reflection was to analyse the determined initial state. The researcher shared his observations and photographs with the educators and presented the results of the educators’ self-assessment and tried to identify more clearly, together with the educators, in which areas it is desirable to introduce changes: the appearance of the yard, organization of space, variety and availability of materials, planning of incentives and activities, related planning for stay in the living room and outdoors, monitoring and documenting the behaviour of children in relation to the physical and material conditions of the yard. The explanations offered by the educators about the deficiencies in the above areas are in line with the researcher’s observations during the initial assessment. Educators say they don’t have enough room in the kindergarten where they can store the materials and props they need for outdoor stay: *“they explain several times that they don’t have enough closets and they just have nowhere to put all the things.”* In the conversation it was noticed that the educators do not notice the difference in their own pedagogical approach in the living room and in the yard. The researcher therefore tried to direct them to self-critical thinking about their own practices and attitudes, comparing the appearance of indoor and outdoor nursery spaces and highlighting the great efforts of educators in creating and planning the overall stimulating environment in indoor versus their relation to outdoor space. In the end, it was concluded that the educators were also dissatisfied with the “cold” and disincentive yard, and realized the difference in their

own approaches. They have tried to analyse it themselves, stating that in their work they are primarily focused on activities in the living room, while going out sometimes can be seen as an opportunity for children, but for them too to “breathe” a little, which is explained by the possible saturation, given the years of work - three educators have 37+ years of service. In the end, the term and topic of the next reflection was agreed, and also the agreed task was to think about ways to improve the identified areas with identified deficiencies, taking the approach that is usually followed in organizing and planning the room stay. In another common reflection, the aim was to broaden the knowledge of educators so that the presentation presented relevant contemporary theoretical knowledge, and through photographs and videos showed various examples from practice in Croatia and in the world (UK, Scandinavian countries, USA, Canada, etc.). The educators came prepared with their own ideas, got involved, asked questions, and the reflection focused specifically on analysing the examples and considering their application - they express a special interest for planting the garden, as in the initial interview. Educators remain primarily concerned about the lack of material conditions and point out the lack of space to store the necessary materials that they cannot leave outside as a major obstacle. Therefore, during the reflection, a tour of the interior of the nursery was made and the possibilities of reorganization were considered.

Finally, initial guidelines for introducing changes were agreed: arranging the appearance of the yard by painting the floors or walls, arranging the space by dividing the yard into a playground – larger space where static equipment are placed, and into a quiet area – smaller space by the entrance to the nursery, where there is more shade , designing and planning activity centres in a quiet space, designing and producing didactic-materials, freeing up a smaller interior space in the lobby to store materials. Until the next reflection, the task was to reflect on the possibilities of concrete implementation of these guidelines, since the aim of the third reflection was to plan the external environment for the coming quarter. The educators expressed a desire to expand the project which was taking place at that time considering the interest of the children, the project was “My body” and, among other things, it was thematically developing in the direction of healthy eating. So it was decided that a quiet space would be organized and a permanent activity centre - a garden –would be planned with vegetables and spices to encourage further interest of children and experimental learning about food. It has also been agreed that this peaceful space will be enriched by other centres which will be planned, modified and supplemented depending on the interest of the children, so the educators decided to design a research centre for the start. The researcher still had to encourage educators to think about involving children and parents in the design or procurement of materials for centres, as well as materials that could enrich the play and activities of children in the rest of the yard. Finally, educators also got familiar with ways of monitoring and documenting children’s behaviour with respect to changes in spatial and material conditions, and it is agreed that they and the pedagogue will document activities with a camera so that the introduction of changes can be evaluated on shared reflections for further development .

SECOND PHASE

In the second phase, the introduction of changes started, which, by agreement, was initiated by the organization of the space. Educators and the researcher monitored and documented the changes and the behaviour of the children in relation to them. The researcher visited the group twice a week, and by participating that way he was recording the observations in the monitoring journal. This was used in common reflections and to decide jointly on any further changes that would be introduced. Shared reflections were organized four times during this phase and the researcher and educators analysed the collected documentation and evaluated their work together. By mutual agreement, the educators first visually divided the space into two parts: the larger part - the playground and the smaller part - the space for peaceful activities, laying a large carpet at the bottom of the quiet space, before the playground began. For this they also had a foundation in the very physical appearance of the yard, which is narrower at the entrance to the kindergarten (the part between the fence and the wall of the building in which the nursery is located), and then it spreads around the building into a large space where static props are placed (slide, swings, sandbox, climber). First, the educators put picture books and puzzles on the carpet, so that the children immediately understood how they were supposed to behave. They would take off their shoes, sit or lay on the carpet, and in small groups or more often in pairs, scroll through picture books or put together jigsaw puzzles, and some of them wanted to be alone and even fall asleep in the sun. Also, other kids running or playing ball and other props, approaching that space, would slow down their movement and play intuitively.

In the quiet area, the educators began to bring several tables and chairs, which they set up against the wall or along the fence, in order to facilitate the passage to the kindergarten, but also having in mind, as agreed in the previous phase, the use of the fence for the organization of centres activities and placement of didactic materials. Also, the tables are always placed in the same place, two by the fence and one by the wall, so the children could get used to their arrangement. Initially, the tables were equipped only with crayons and papers and encyclopaedias and picture books on planting, gardening and food production, thus stimulating children's interest and expanding the "My Body" project, in which they were included in the living rooms at that time. In this way, but also through other activities in the living room (educators invited a visiting theatre with the play "The Bunny and the Vegetable Garden"), they stimulated children's interest and through conversations, by telling stories they prepared them for the introduction of a newly designed outdoor activity centre - the garden in pots. Since the kindergarten is part of an apartment building and has only a concrete fenced yard, on the common reflections in the previous phase, it was agreed that the plants would be planted in long narrow pots and placed against the wall. The educators have involved the children in the whole process - from soil tillage, planting and transplanting to watering. Cherry tomatoes, peppers, zucchini, cucumber, lettuce, parsley, onions, chard, strawberries, mint, basil, thyme and other decorative

plants and flowers were planted, with the cooperation of parents who brought numerous plants and seeds for planting. Educators noticed that the garden was an incentive to teach children in multiple developmental areas - cognitive, emotional and social. Children were planting and studying plants, and various forms of communication were made - they asked questions to educators, developed their own theories about plant growth and fruits in conversation with each other - in which educators continued to encourage them, thus developing children's language and speech, creating awareness about nature, cause and effect, and developing scientific and mathematical thinking, seeking answers to how much soil to put, how much water to pour, and why, they developed personal responsibility, taking care about conditions in which plants could grow. Throughout this phase, the garden continued to be a favourite gathering place for children - children took care of "their" plants, watering them, adding soil, monitoring changes in their formation, tying climbing plants, protecting plants from too much sun, setting nets for shade etc., or they would just come to sit next to the plants alone or in pairs, and some quiet conversations between children which were often characterized by fantasies and expressions of their own feelings or experiences were recorded there.

At the end of this phase, the plants grown by the children grew and bore their fruits and were ready to be harvested. The educators planned to collect the fruits together, talking with the children about recognizing the ripeness of the individual plants and fruits, which they studied together by comparing their plants with pictures from children's encyclopaedias and picture books about gardening. Also, in the conversation, the children asked questions about ways of picking different plants, made suggestions on how to pick or cut individual plants and fruits, using the encyclopaedias mentioned above, and they wanted to make a vegetable train modelled after a picture book. The educators appreciated this and brought in cardboard boxes that they, together with their children, put together and shaped into a small train. The children thus independently harvested the vegetables and spices they grew, stacking them in wagons by type. This train was later used both in the yard and in the living room to play the market. Together with their educators, the vegetables were taken to the kitchen where their assistant showed them how to clean and prepare the vegetables. Of course, they wanted to taste what they had grown right away, so they, together with their educator and assistant, washed, peeled and sliced the cucumbers, which the assistant then served them that day as a snack in the yard. They continued so the whole week, the assistant showed them how to prepare, clean and cook the chard that everyone tasted the next day (although according to educator's observations, the chard is not a popular meal among children), then washed and cleaned lettuce, then tasted the cherry tomatoes and finally the strawberries. The children were very proud of their fruits and showed their parents what they had grown, and parents also expressed interest in tasting their products. The educators therefore spoke with the children about the upcoming final ceremony and together with them planned what kind of food from their products they could prepare for the event. So, on the day of the ceremony, by the children's choice the educators and the assistant pre-

pared pizzas on which the children laid their zucchini, peppers and tomatoes and other vegetables which the nursery teachers brought, and together with the children prepared mint tea which children then served to their parents.

Throughout the second phase, the educators used the children's interest in the garden and changes in the plants as incentives for designing activities in other centres - the visual art expression centre, the research centre, etc. and even in the design of playground activities. Therefore, the next step in introducing change was to design a research centre. As the children poured water every day, often playing with water - pouring it on their hands, pouring water from one watering can to another, etc., the educators took advantage of their interest and decided to devise materials and incentives for exploring and playing with water. By mutual agreement, it was decided to design materials that would be functional in terms of easy entry and exit into the yard, which could be adapted and transformed in the further development of changes and would not take up too much space but would be able to hang on the wall or fence and so be used both in the yard and in the living room. Accordingly, the educators made a collaboration with a carpenter who made them several frames of light wood in which he placed a mesh on which different elements could be placed as needed. The educators involved the children in the process of editing these frames, so the children themselves painted them and connected the elements to them. As an initial impetus for the research centre, the educators offered children items such as plastic bins, jugs, poles, plastic tubes, bottles and funnels that the children connected in different ways on the frame and, pouring water, investigated water flow, flow time, volume, volatility, etc. Children's interest in water exploration lasted for several weeks and was followed by educators to devise new activities and introduce new incentives such as hourglass, colours, floating and non-floating materials, making paper boats, suds and the like. On shared reflections, the educators noted that the children stayed in these activities for the longest time, some for 40 to 60 minutes each, and interpreted the children's great interest in exploring and playing with high temperature water and their natural interest and curiosity about the element they do not have the opportunity to explore otherwise in living rooms. The research centre continued to be designed by educators throughout the second phase of the research, changing the elements on the frames and introducing new materials and incentives and devising different activities. In doing so, they were guided by the interest of the children, but also by the opportunities provided only by the natural environment. The peaceful space where the centres were organized was in the shade of nearby trees between which the sun peeked out, prompting children to explore the shadows and light. They were framing various new elements such as CDs, artificial crystals, dark and light fabrics, etc. So the children explored the different properties of the elements in relation to light and studied their effects, observed the shadow they provide, etc. This prompted many new activities directed by the educators - the children thus outlined the shadows with chalk on the floor and drew the outlines of their own shadows in different positions of the body, brought different materials and toys from the living rooms and observed their glare and shadows, the educators encouraged them

to monitor the movement of the shadow during days, they made a sundial and studied the time reading by shadow, etc. Also, the educators enriched the research centre with a number of natural materials, as they noticed through the insight in the documentation, that the children showed great interest in branch cuts (originally intended for kindergarten because on them the educators drew letters, numbers, symbols, dots, etc.) and used them in self-initiated and self-organized activities, arranging them in size, outlining their appearance, etc. Therefore, they brought more natural materials to the nursery, such as wooden branches and cuts, pinecones, pebbles, sponges, and made scales, secured magnifiers, a tailor meter to measure length and width, etc., thus enriching and directing children's self-initiated study. Introduced natural materials also stimulated children's creativity, so one girl used a different type of pebbles as a cross-game, which other children gladly accepted, so they painted and decorated the necessary material themselves and created their own game. Then one boy took coloured pebbles and devised a new game inspired by Candy crush, which aimed to combine as many pebbles of the same colour in a row from the opponent.

In addition to the gardening centre and the research centre, which were constantly present and enriched during this phase, the educators also planned and designed other centres with common reflections, following the interest of the children, so they were not constantly present, but changed frequently. This is how the Centre for Art Expressions, the Centre for Preschoolers, the Centre for Household and Symbolic Play, and the Centre for Construction and Exercise Centre were created in the playground area. The Household and Symbolic Game Centre was first designed when children explored the water. On shared reflections, through video insights, it was noted that younger children were less likely to engage in water activities at the research centre and spent less time in those activities, often transferring water in pots to other locations in the yard and starting games in which they immersed other toys in the water, imitating boats, submarines, fish, swimmers, etc., or simply pouring the water from one vessel to another. Therefore, the educators prepared a small plastic pool, cans, sponges, soap foam, etc., which encouraged the further development of the symbolic game. Also, with the inclusion of soap and sponges, the children started washing and cleaning their toys, so the educators soon hung a rope, bucket with clip-pers on the fence near the pool, and began to bring some dolls and their clothes and some kitchen utensils from the rooms. Children bathed dolls, washed, squeezed and dried clothes, washed dishes, imitating their parents. Similarly, the preschool centre was actually initiated by a group of preschoolers who often put out their worksheets outside, so educators produced didactic material from branch cuts with the help of a carpenter. They used to draw letters, numbers, mathematical symbols and symbolic representation of numbers in dots, and prepared different activities and tasks for joining, analysis and synthesis, simple addition and subtraction, etc. But monitoring and documenting showed that children did not stay long in these activities, and soon they reworked this material, as noted earlier, at the research centre.

The Centre for Art Expressions was created, as mentioned, at the very beginning of this phase through the preparation for the introduction of a gardening centre. The

educators brought out crayons, markers and pastels along with encyclopaedias and picture books on gardening, and motivated the children to draw their imaginary gardens, discussing what they would look like, what they would plant in them, etc. And when the flowers they planted bloomed, the children themselves began to look for different mediums to paint, studying carefully the colours and shapes of the different flowers. With the introduction of changes, the Centre for Art Expressions was a little neglected in planning, as children often participated in the design and colouring of didactic and other materials designed and introduced by educators for other centres of activity.

Finally, in addition to designing and planning for activity centres in a quiet courtyard space, educators introduced new materials and props and designed activities for the playground area as well. In cooperation with the researcher, they acquired new props such as a basketball basket for the wall, cones, jumping ropes, etc., with the help of which they planned various polygons or activities with tasks for children that encouraged their physical development and teamwork. Also, the new props enriched the children's leisure activities, so they themselves designed different games with new props. The children were very happy to participate in all the physical activities and did not need much encouragement. They tasked each other with different tasks modelled on those planned by educators, planned polygons, demonstrated their abilities, taught others, and helped them perform certain tasks or movements. And the educators continued to encourage them by creating various posters with examples of various exercises and demonstrations of their performance, which were hung in one corner of the playground and a small exercise centre was created there, which was supplemented by the production of dumbbells of various sizes and weights, and by bringing some small floor mats out. In addition to exercise equipment, educators gradually introduced new materials into the playground area, and the most successful were car tires, which were painted by the children themselves and later used by the educators and children in various ways through this phase of research. Initially, educators used tires and other props to design polygons in which children had to pull, jump in and jump out from tires, push them between cones, etc. But soon it was noticed that children used tires in other ways - often they simply sat and talked to each other, piling them up and hiding in them, laying them beside their bodies and imitating driving a car, etc. It was concluded on common reflections that this could be further encouraged by designing a construction centre. Therefore, the educators one day collected and brought into the yard some new materials that they thought would adequately stimulate children's creativity and from which children would be able to construct different buildings - cardboard boxes of different sizes and plastic crates that could be stacked on top of one another and were surplus in the main kitchen of the institution. The children, and especially the boys, showed great interest in this material, and that day, using car tires, boxes and crates, they stacked and rearranged, entered, climbed, etc., and several of them stayed in the open air all the time in these activities. Unfortunately, as there was no room in the nursery to store these boxes and crates, it was agreed that the kindergarteners would stack them at the end of the

working day and leave them in the corner of the yard. But the following morning, most plastic crates from the yard were gone and some cardboard boxes were destroyed, which demotivated educators in further designing the construction centre.

In addition to introducing changes in the physical and material conditions in the yard and changes in organization and planning, there has also been a change in the openness of children's access to the yard. Prior to the research, educators were guided by the philosophy of "open doors" in the interior of a nursery. Children moved freely from one living room to another, participated in the activities of both groups of their choice, and stayed in the hallways, where different activity centres were also designed. At the beginning of the second phase of the study, the kindergarten teachers began to open the doors of the kindergarten and allow children to enter and leave the room in the courtyard and vice versa between breakfast and lunch, although they continued to invite the children to go out together at a time when the daily rhythm of the group predicted. They agreed with the children to discuss the rules of behaviour when entering and leaving, which the children very quickly accepted, and agreed to inform the educators about their departure or arrival, as agreed upon in the joint reflection. The educators expressed their concerns about this change because of their fears about child safety and a sense of responsibility in the event of an accident, and accepted it only one month after the second phase of the research started. Following this change, it was noticed that the educators extended their joint stay outdoors during the second phase of the study and towards the end it lasted the entire period from breakfast to lunch, since most children preferred to choose outdoor activities, they would go out only after eating breakfast and most would only leave the premises with inquiries from educators about toys and materials they would like to bring outside, and very few children kept playing in the rooms. Thus, at the next joint reflection, a big difference could be noticed in the attitude of the caregivers and their attitude towards this change - the caregivers stated that initially every now and then one of them came in and out for the children and checked what they were doing, while later they did so much less often as they have gained trust in children. The end of this phase of the research coincided with the end of the pedagogical year, so in the end the educators, as they have traditionally organized it, in collaboration with the parents, planned a thematic day called "Kindergarten beach". Children came to kindergarten equipped with bathing suits, towels, sun creams, and parents and educators prepared various equipment such as inflatable pools and mattresses, beach balls, parasols, etc. For children it was a special experience and their laughter and exclamations of joy echoed throughout the neighbourhood.

THIRD PHASE

The aim of the third phase of the research was to evaluate and compare the initial and final status through joint reflection, the self-assessment questionnaire of the educators, and by conducting a group qualitative semi-structured interview with the educators to examine their opinions and attitudes about the changes introduced.

The attitude of the preschool teachers about the behaviour of the children and the observance of the rules in the yard significantly changed compared to the initial situation, which was evident from the repeated questionnaire and from their answers in the final interview: *“It seems to me, indeed, that there is much less conflict and strife. Boys used to argue about the ball often, and now they have so many different things that are much more interesting to them. They stay longer in various activities and constantly devise new games, using new material in new ways.”* The educators saw the impact of the environment on children’s behaviour: *“The children really enjoyed every new change and were happy to participate in everything. I say, they also designed the landscaping and didactic materials themselves. And they were very careful about using them and moving them from centre to centre. They became aware of their responsibility to their environment because they themselves participated in its creation.”* And *“... if they found themselves there, they seemed quieter, they would be somehow quieter, warning each other to look out for the plants so they wouldn’t be cut down. They would be able to sit there, look at the fruits and talk about how much they would grow, if they had enough sun, water.”* Through the questionnaire, the attitude of two older educators was observed, who viewed the yard as a space for free physical activity for the physical development, before introducing the changes, about understanding the purpose of the outer space, which one of them points out in the interview: *“I, personally, did not think about the organization of the yard modelled after the living room, but now I saw the advantages of such arrangement. For example, we have a building corner in the room, what difference does it make if we organize it outside? But out there, the kids were stacking car tires, boxes, so they handled much bigger and heavier materials, it was a challenge for them, and then they could slip in and out. It’s a different interaction with the material ...”* There is a noticeable change in the minds of educators, but also in reflecting on the ways in which indoor and outdoor spaces can complement each other with a view to the overall development of children in all areas. There was also a noticeable change in educators’ attitudes about the availability of backyards for children during the day and the time to go outside together. In a shared reflection, educators said they were most afraid of change in this area because of fears about child safety, but although they still felt the yard should not be accessible all day long and saw many issues to think about, they also saw their own prejudice about the independence and responsibility of children.

However, the biggest changes in the attitudes of the educators were in the area of importance of the organization and planning of the outdoor stay - landscaping, creating a quality spatial and material environment, designing and planning incentives and activities, and their own role in monitoring, documenting and evaluating the work. The educators themselves see the difference in their approach: *“Now they have more choices. We still plan activities such as polygons, as we have agreed, we have left most of the yard as a playground, but depending on their interests, we also plan incentives for playing in different centres and constantly change those centres in that part of the yard for “peaceful” activities. For example, there was a research*

centre there all the time, and it took the kids' interest in water research, and then we also planned a household centre, so the kids washed dolls and clothes in the water, squeezed and hung their goods, imitated their moms (laughs)." It can be seen that the educators became aware of their own shortcomings and their that they came over them, but as obstacles in the realization of their ideas, they still pointed out, as at the beginning of the research, material conditions: *"I often had to come early to take everything outside. There is a lot of these new materials for different centres that need to be brought out, organized and set up earlier."* In the joint reflection it was concluded that for a quality stay outdoors it was the most important to realize the difference in the caregiver's approach to organizing and planning work in rooms and outdoors. Knowing that a diverse and stimulating spatial-material environment encourages self-organized and self-initiated activities of children and facilitates their overall development in all areas, as well as the importance of the role of educators in monitoring and promoting children's interests and the needs to encourage children's natural learning, the educators emphasized that through the previous stages of research they started to see the difference and recognized their own failures. The educators also emphasized that with the introduction of changes and their upgrading, their level of motivation increased, they felt empowered and noted that they were also much more creative in their work in designing new incentives, materials and activities. The educators were also satisfied with their professional development, emphasizing that the support of the pedagogical researcher, through prepared material, practical examples and literature, but above all through cooperation in planning and assistance in critically reflecting on their work and attitudes, encouraged them to overcome their fears and distrust of their abilities or the question of the success of certain changes. Apart from that, it was concluded that their work was greatly facilitated by the weather when the changes were introduced - three spring months in which the weather was mostly clear and warm - which made educators want to continue their research in the autumn and winter months, thinking about the challenges they could face during that period.

CONCLUSION

The research was characterized by the collaboration of educators and researchers who thought together about their own practice - examining obstacles and opportunities for improvement. Following the development in the research phases, a number of changes can be observed from the initial state. Primarily, educators' attitudes toward outdoor stay prior to the introduction of change reflected a lesser importance on outdoor stay that was understood as a short break from activities within the living rooms, and was predominantly characterized by perceived problems and obstacles - risks to children, lack of appropriate material conditions, and etc. Educators mostly took on a supervisory role in the outdoors while children were in free play without a created stimulating environment. Such results are in line with other major qualitative studies already cited (Maynard and Waters, 2007; McClintic and Petty, 2015), but also with the more extensive quantitative research conducted by Kalpogianni (2019)

with educators in Greece and also showing how Greek kindergartens generally have inadequate outdoor spaces, and educators perceive outdoor stay as a time and space for short breaks whereby they take on a supervisory role, focusing on problems such as risks, insufficient material conditions and child behaviour, that is, conflicts between children, and some future researches in Croatia could be focused at the quality of outdoor stay as well.

A significant change also occurred in the behaviour and play of children during the research. Prior to the introduction of changes, children usually only participated in a functional game, quickly transitioning from one activity to another and often entering into conflicts, while changing the space, organizing into zones, introducing activity centres and new materials, could result in longer retention in a certain activity, richer and more diverse play and communication and less conflict, which is consistent with the stated findings of research on interior and interior remodelling (Acer, Gözen et al., 2016) and exterior spaces (Czalczyńska-Podolska, 2014). The introduction of the garden, where the activities and play of children were the most diverse and the longest, and which gave rise to incentives for activities in other centres, had a special impact on these changes. Similarly, Vandermaas-Peeler and McClain (2015), in a longitudinal study of gardening in an American nursery, showed that gardening gives children a boost and opportunity to develop in diverse fields - practical life skills, scientific and mathematical thinking, environmental awareness, etc. Wishart, Cabezas-Benalcázar, Morrissey and Versace, 2018; Brussoni, Ishikawa, Brunelle, and Herrington, 2017; Nedovic and Morrissey, 2013 also show that with the introduced natural materials, children have a better quality game that lasts longer and is characterized by more diverse socialization and communication among children, and show a greater focus of attention and longer maintain concentration in play than in more traditional backyard spaces. Unfortunately, this study could not monitor those due to the material conditions and geographical location of the kindergarten, but the influence of the new gardening centre was noted and it could be noticed when the children were given the choice of where to stay, as they chose the outdoor space more often and stayed there for a long time, which was also showed by Kos (2010) in Slovenia, where surveyed children chose natural environments as their favourite play areas.

Finally, it can be concluded that the aim of the research was fulfilled - the educators have made some awareness and some changes in their attitudes, thus improving their practice in the planning and organization of the stay outside, but they have not managed to overcome all obstacles, and some introduced organizational changes are unsustainable in the long run. However, they provided guidance for further research in this area - in particular on the importance of outdoor children's stay in child development and how to organize outdoor stay in early and preschool institutions in Croatia.

LITERATURE

1. Acer, D., Gözen, G., Firat, Z., S., Kefeli, H., Aslan, B. (2016): Effects of a redesigned classroom on play behaviour among preschool children. *Early Child Development and Care*, 186(12):1907-1925
2. Agostini, F., Minelli, M., Mandolisi, R. (2018): Outdoor Education in Italian Kindergartens: How Teachers Perceive Child Development Trajectories. *Frontiers in Psychology*, 9:1911
3. Bilton, H. (2010): *Outdoor learning in the early years: Management and innovation*. Routledge, London
4. Bjørgen, K. (2016): Physical activity in light of affordances in outdoor environments: qualitative observation studies of 3-5 years old in kindergarten. *Springer Plus*, 5(1):950-961
5. Blanchet-Cohen, N., Elliot, E. (2011): Young children and educators engagement and learning outdoors: A basis for rights-based programming. *Early Education and Development*, 22(5):757-777
6. Brussoni, M., Ishikawa, T., Brunelle, S., Herrington, S. (2017): Landscape for play: Effects of an intervention to promote nature-based risky play in early childhood centres. *Journal of Environmental Psychology*
7. Copeland, K.A., Kendeigh, C.A., Saelens, B.E., Kalkwarf, H.J., Sherman, S.N. (2012): Physical activity in child-care centers: do teachers hold the key to the playground? *Health Education Research*, 27(1): 81-100
8. Czaczyńska-Podolska, M. (2014): The impact of playground spatial features on children's play and activity forms: An evaluation of contemporary playgrounds' play and social value. *Journal of Environmental Psychology*, 38:132-142
9. Ernst, J. (2014): Early childhood educators' use of natural outdoor settings as learning environments: an exploratory study of beliefs, practices and barriers. *Environmental Education Research*, 20(6): 735-752
10. Garric, R. (2009): *Playing outdoors in the early years*. Continuum, London
11. Goddard-Blythe, S. (2009): *Attention, Balance and Coordination – the A.B.C. of learning success*. Wiley-Blackwell, Oxford
12. Gopnik, A., Meltzoff, A.N., Kuhl, P.K. (2001): *The scientist in the crib: What early learning tells us about the mind*. Harper Collins publishers, New York
13. Hansen, K.A., Kaufmann, R.K., Walsh, K.B. (2001): *Kurikulum za vrtiče: razvojno-primjereni program za djecu od 3 do 6 godina*. Korak po korak, Zagreb
14. Kalpogianni, D.E. (2019): Why are the children not outdoors? Factors supporting and hindering play in Greek public day-care centres. *International Journal of Play*
15. Kember, D. (2005): *Action learning and action research*. Kogan page, London
16. Kos, M. (2010): Outdoor play and learning in Early Childhood. U: *Collection of papers Encountering, Experiencing and Exploring Nature in Education*, 108-113
17. König, E., Zedler, P. (2001): *Teorije znanosti o odgoju*. Eduka, Zagreb
18. Luchs, A., Fikus, M. (2013): A comparative study of active play on differently designed playgrounds. *Journal of Adventure Education and Outdoor Learning*, 13(3):206-222
19. Maleš, D., Stričević, I. (1996): *Druženje djece i odraslih*. Školska knjiga, Zagreb
20. Mårtensson, F. (2010): Igra na otvorenom u središtu zdravstvene kampanje. *Djeca u Europi: zajednička publikacija mreže europskih časopisa*, 2(4):11-12
21. Maynard, T., Waters, J. (2007): Learning in the outdoor environment: a missed opportunity? *Early Years*, 27(3):255-265

22. McClintic, S., Petty, K. (2015): Exploring early childhood teachers' beliefs and practices about outdoor play. *Journal of Early Childhood Teacher Education*, 36:24-43
23. McNiff, J., Whitehead, J. (2006): *All you need to know about action research*. Sage Publications, London
24. Miljak, A. (2000): Učenje nije mučenje ako se odvija na prirodan način. U: zbornik radova *Učiti zajedno s djecom – učiti*, Čakovec
25. Miljak, A. (2009): *Življenje djece u vrtiću*. SM naklada, Zagreb
26. Morrissey, A.M., Scott, C., Rahimi, M. (2017): A comparison of sociodramatic play processes of preschoolers in a naturalized and a traditional outdoor space. *International Journal of Play* 6(2):177-197
27. Nedovic, S., Morrissey, A.M. (2013): Calm, active nad focused: Children's responses to an organic outdoor learning environment. *Learning Environment Research*, 16:281-295
28. Slunjski, E. (2008): *Dječji vrtić – zajednica koja uči*. Spektra Media, Zagreb
29. Slunjski, E., Burić, H. (2014): Akcijsko istraživanje i razvoj nove kulture odnosa temeljene na autonomiji i emancipaciji učitelja, *Školski vjesnik*, 63(1-2): 149-162
30. Slunjski, E. (2016): *Izvan okvira 2: Promjena*. Element, Zagreb
31. Starc, B., Čudina-Obradović, M., Letica, M., Pleša, A. (2004): *Osobine i psihološki uvjeti razvoja djeteta predškolske dobi*. Golden marketing - Tehnička knjiga, Zagreb
32. Stevanović, M. (2003): *Predškolska pedagogija*. Andromeda, Rijeka
33. Vandermaas-Peeler, M., McClain, C. (2015): The green has to be longer than your thumb: An observational study of preschoolers' math and science experiences in a garden. *International Journal of Early Childhood Environmental Education*, 3(1):8-28
34. Vukašinić, A. (2016): *Osobna motivacija odgajatelja kao ključ osuvremenjivanja odgojno- obrazovne prakse*. U: Slunjski, E.: *Izvan okvira 2: Promjena*. Element, Zagreb
35. Waite, S. (2017): *Children learning outside of classroom from birth to eleven*. Sage, London
36. White, J. (2007): *Playing and learning outdoors – making provision for high-quality experiences in the outdoor environment*. Routledge, London
37. Wishart, L., Cabezas-Benalcázar, C., Morrissey, A.M., Versace, V.L. (2018): Traditional vs naturalised desing: a comparison of affordances and physical activity in two preschool playscapes. *Landscape Research*
38. Nacionalni kurikulum za rani i predškolski odgoj i obrazovanje (2014), RH, MZOŠ, Zagreb (on-line). Preuzeto s: <http://www.azoo.hr/images/strucni2015/Nacionalni-kurikulum-za-rani-i-predskolski-odgoj-i- obrazovanje.pdf> (15.7.2019.)