ESTUDOS EM DESENVOLVIMENTO MOTOR DA CRIANÇA XIV

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UNIVERSIDADE BEIRA INTERIOR

Título:
Estudos em Desenvolvimento Motor da Criança XIV
Editores:
Kelly O'Hara, Bruno Travassos, Carla Lourenço
Capa:
Inês Batista
Edição:
UBI Edições
Universidade da Beira Interior, 6200-001, Covilhã
Tel.: 275329153
http://www.ubi.pt
Impressão e Acabamento:
Reprografia UBI
Tiragem:
200 exemplares
Data:
Outubro, 2019
ISBN:
Impresso: 978-989-654-605-2
Digital: 978-989-654-606-9
N.º de Depósito Legal:
463759/19

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Outdoor oriented practices for early childhood education (opiece) - building an educational play street in turkey

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RESUMO

Brincar ao ar livre e envolver-se em atividades físicas ao ar livre contribui para o desenvolvimento motor das crianças e para a sua saúde física e mental. Assumindo que as ruas deveriam ser áreas usadas não apenas para os transportes e atividades sociais, mas também para brincar e aprender, e considerando o brincar ao ar livre como uma forma de desenvolvimento e educação, uma rua orientada para a brincadeira educacional está a ser desenhada e construída na cidade de Hendek, Turquia. Fundamentado na teoria das affordances, o design dos elementos da rua e da paisagem visa proporcionar oportunidades lúdicas que possam ser facilmente detetadas e utilizadas por todos, de acordo com as suas necessidades desenvolvimentais, promovendo assim o desenvolvimento motor e sócio-emocional das crianças, a sua independência e mobilidade. Considerando a literatura sobre os espaços lúdicos exteriores e ouvidas as perspetivas do município, educadores e pais, foram definidas algumas orientações para o desenho da rua quanto à (a) segurança e supervisão; (b) tipos de brincar e níveis sociais proporcionados; (c) elementos naturais e artificiais; (d) organização padronizada e não padronizada dos elementos.

Palavras-chave: brincar ao ar livre; competência motora; competência sócio-emocional; jogo livre; desenvolvimento da criança

ABSTRACT

Playing outdoors and being engaged in outdoor physical activities contributes to children's motor development, and to their physical and mental health. Considering that the streets should be areas used not only for transportation and social activities but also for playing and learning, and assuming outdoor play as a crucial venue for development and education, an educational play street is being

designed and built in the city of Hendek, Turkey. Grounded on the theory of affordances, the design of the street and landscape elements aims to provide playful opportunities that can be easily detected and used by everyone according to their developmental needs, therefore promoting children's motor and social-emotional development, independence and mobility. Given the theoretical background on playscapes design and the input from the municipality, preschool teachers and parents, some guidelines were defined for designing the street, regarding (a) safety and supervision; (b) afforded types of play and social levels; (c) natural and man-made elements; (d) standardized and non-standardized organization of elements.

Keywords: outdoor play; motor competence; socio-emotional competence; free play; child development

INTRODUCTION

Play provides children with a sense of freedom and safety, which encourages them to discover, practice and master their competencies without the fear of failure, therefore contributing to their adaptive functioning and well-being[1]. Whether in a street, park, or forest, one of the most preferred places for children to play is outdoors. Outdoor environments give children a big scale scenario, where they can move freely and put their hands-on nature, experiencing natural phenomena such as the seasonal changes, the weather and the shadows[2]. A bigger scale also invites children to heavy (harsh) movements and physical activity, which encourages motor development and physical activity[3] and increases their risk-taking experience. Hence, providing controlled risk-taking opportunities in early childhood teaches children how to manage risk and improves their self-confidence[4-7] and ability to cope with more dangerous situations that are difficult to manage[5]. In such environments, while exploring their environment, children become aware of their own bodies and what they can do. Making mistakes while testing their physical limits is vital to the learning and development of children[5]. Besides, the exposure to sunlight, open air, soil and other natural elements, contributes to physical health and

development[7,8]. From a social-emotional perspective, the experienced freedom to move (in and move out), makes it easier for children to initiate and maintain social interactions[2]. For example, a child can easily move away from an emotionally intense interaction, take a deep breath while thinking how to cope with it, and come back to the group in order to solve it. In short, outdoor activities support children's development, learning, mental health, physical health, including physical activity and healthy weight.

Rousseau, Froebel, and other early childhood pioneers have claimed that learning taking place outdoors based on self-discovery, experiencing and collaboration, is very important for the education and the development of the child. Recently, many European Countries have been putting their efforts to recover outdoor learning, reintegrating outdoor practices in early childhood curricula. However, due to a number of reasons including the indoor-centered and supervised culture of nowadays, the rapid urbanization, traffic increasement, concerns about insecurity and less attractive streets and play spaces, the time spent outdoors has been declining[9].

THE DESIGN OF A PLAY STREET: IMPORTANT CONCEPTS

Considering that streets should be areas used not only for transportation and social activities but also for playing and learning, and assuming outdoor play as a crucial venue for development and education, an international team has been working on the idea of an educational play street, which will be designed and built in the city of Hendek, Turkey. The design of the play street was grounded on Woonerf concept[10] and on the theory of affordances[11], aiming to promote Turkish children's independence and mobility.

The Dutch word *Woonerf* literally means living yard, and the concept was developed to design residential road spaces shared by pedestrians and cars. In a woonerf street the car is a guest in the street and therefore should follow the pedestrian's pace. According to

the urbanist Ben-Joseph[10], a woonerf street has (a) visible entrances and signalling, establishing the superiority of the pedestrians over all the street users, (b) a shared and paved space so everyone realizes that there is no division between cars and people, forcing cars to drive at a slower pace, (c) physical barriers such as curves and slopes also to slow down the traffic, and (d) accommodates landscaping and street furniture that encourage social opportunities. In a woonerf, limiting vehicular speed not only improves residents' feelings of safety, but also promotes greater use of the public space. These features of woonerf allow more social interaction spaces to be created, more people walking on the streets, cycling, playing and interacting with each other. In other words, a woonerf turns the street into a liveable and attractive environment for various activities[12].

Gibson's theory of affordances[11], concerning "the reciprocity between the proprieties of the environment and the characteristics of the organism", is also of paramount importance when designing a play space. Transposing Gibson's theory to the design of a play street, it is clear that the elements and the landscape must afford different kinds of (meaningful and motivating) playful opportunities that can be easily detected and used by everyone according to their development needs. Besides, it is also important to consider the concept of independence of mobility[13], specifically the influence that 'a license' to move around independently in the environment has on children's physical, cognitive and social-emotional development. Thus, the street should be attractive and safe enough so children can use it on their own, and parents feel comfortable letting their children use and explore the street independently.

THE OPIECE PLAY STREET DESIGN

Considering the principles for creating outdoor play environments proposed by referenced play researchers and landscape architects[14,15], and given the input from Hendek

Municipality and the needs' analysis of Hendek's preschool children teachers and parents, important guidelines were defined for the design of the play street.

First, instead of building a completely new and modern area, ignoring the surroundings and the culture, it was assumed the importance of working with the landscape and the natural elements that already existed, preserving the sense of place and identity[16] of the OPIECE street and surrounding play areas (i.e., the memories, the nature). The challenge is to build a unique place where Hendek children feel they belong to, instead of a generic place that could be anywhere in the world. For example, given the importance that football has for children of Hendek, it was decided that the football field that had been already built in the surroundings should be preserved. Another idea was, instead of demolishing the walls near the street, build a boulder climbing wall along the sidewalk, giving an opportunity of risk and challenge.

In order to adapt the woonerf concept to the intended educational play street, it was decided that the street should be coloured with different draws (e.g., curvilinear dashes, circles), which will help drivers to immediately recognise that they are in a different domain, where children can play freely, and therefore a lower speed and more caution is required. Moreover, sidewalks will also have different coloured tiles to invite pedestrians for physical play (e.g., play hopscotch) and games with rules (e.g., play draughts).

The projected place (which includes the educational play street and the surrounding areas) will incorporate a number of specific play areas. Such organization took into consideration (i) the preschool children (through their drawings about the ideal street), teachers and parents' suggestions (through open-ended questions and interviews) for whom it is important to design the play areas according to children's development, so everyone can easily understand the developmental purposes of each area, but also (ii) the

recommendations of Shackell and colleagues[15] recommending to focus on abilities rather than on ages when designing play areas. Thus, the play taxonomy proposed by Smilanksy[16] was taken into account, as it combines both requisites. Hence, six areas were suggested: four areas according to Smilansky's play taxonomy[17] – physical play, constructive play, dramatic play and games-with-rules – , a fifth area for sensory integration and a sixth area for social gathering. These areas will be interconnected by a broad, looping, curvilinear pathway (or pathways) as research shows that such characteristics afford high levels of physical activity and diversity of activities[14].

'Open design' and 'overlapping scales of difficulty' are two key criteria for the design of the six areas[15]. 'Open design' intends to make use of and stimulate children's creativity and imagination by presenting them with diverse equipment with no defined function. For example, a curved concrete structure can be a seat for the auditorium, a surface for skateboards, or even a wall for smaller children to run along or draw with chalk. Moreover, while the main idea for the multisensorial area is to give toddlers the opportunity to touch and explore different textures (e.g., sand, grass, volcanic rocks, woodchips), this area will be designed in a sun clock format. This way, it will invite older children to engage in physical play, as well as to learn how to measure the time in hours, weeks and months, using their own shadows. Another example is the dramatic play area, where old trees will be used to create a structure that invites children for both dramatic play (trees branches create a house or a bench), but also for physical play (balance games over the thicker branches). Besides, 'overlapping scales of difficulty' enable children with different characteristics and abilities to play next to each other, learn from one another, and discover how they can integrate themselves and others in play[18]. For example, a boulder climbing wall can have many routes with various levels of difficulty, therefore inviting children from different

ages and motor abilities to climb together. Also, while a 3-year-old child will carefully walk on a stepping rocks pathway (i.e., physical play area), a 9-year-old will challenge him/herself to cross it running and an elderly person will use it to stimulate his/her balance skills.

Concerning the physical play area, where a stepping rocks or a wooden logs pathway will be implemented to promote motor abilities such as balancing, jumping and rough and tumble play, it is important to note that the standardization of equipment will be avoided as "play becomes simplified and the child does not have to worry about his movements. This does not prepare him for all the knobby and asymmetrical forms he is likely to be confronted with outside the playground and throughout life"[19].

Finally, there will be a variety of natural loose parts such as rocks, fallen leaves, pine needles, pieces of tree root, fallen fruits from trees and wood chips (therefore, there should be a variety of trees and bushes). Other (bigger) kinds of loose parts will also be included, for example, big wood blocks, tires, pipes and boxes. Research shows that loose parts encourage child-led play and promote physical activity, creativity and problem-solving skills. Moreover, the inclusion of loose parts in an outdoor environment increases constructive play, which enables dramatic play[20].

To sum up, when designing outdoor learning and playing environments, an interdisciplinary team should take into account a number of conceptual constructs (e.g., theory of affordances, concepts of independence and mobility, play taxonomies) which should be intertwined with the perspectives, needs and expectations of the community (e.g., children, parents, teachers) and with the culture/identity of the place to be intervened. Such challenge is currently being carried out in the OPIECE project.

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