

OUTDOOR AFFORDANCES IN PRESCHOOL EDUCATION: EXPLORING THE EDUCATIONAL POTENTIAL OF EXTERIOR SPACES

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Abstract

This article draws on the Final Internship Report developed within the Supervised Teaching Practice course of the master's degree in Pre-school and Primary Education. The study focused on the role of outdoor space in promoting *affordances*, with emphasis on pre-school education, given the richness of observed interactions. Outdoor environments offer opportunities for meaningful, playful and holistic learning.

Affordances are understood as possibilities for action that emerge from the complementarity between the child and the environment, shaped by perception, motivation, and development. Observations revealed a progression from sensory exploration toward more complex motor and symbolic actions, reflecting children's dynamic appropriation of space. Findings highlight outdoor spaces as authentic extensions of learning, capable of fostering autonomy, creativity, imagination and cooperation, while reinforcing the educator's role in designing rich and challenging environments.

Keywords: Outdoor space, preschool education, affordances, free play, holistic development.

1 INTRODUCTION

The importance of outdoor space for children's overall development has been widely recognised in both research and educational practice guidelines. Outdoor environments offer opportunities for free movement, direct contact with nature, and meaningful social interaction, thus fostering learning that is playful, experiential, and holistic. Within this framework, the present article draws on an excerpt from the Final Internship Report, developed in the scope of the Supervised Teaching Practice course unit of the master's degree in Pre-school and Primary Education. The study centred on the role of outdoor space in promoting *affordances*, with a specific focus on the context of pre-school education, given the richness and diversity of the interactions observed in this setting.

Affordance refers to the complementarity between an organism and its environment, shaped by individual abilities, motivations, and perceptions. This theoretical lens highlights the dynamic and evolving relationship between children and their surroundings, showing that the action potential emerges through active exploration, imagination, and interpretation of the environment. Observing how children engage with outdoor spaces allows us to uncover not only the physical opportunities provided, but also their symbolic and social dimensions, thereby emphasising the educational value of these contexts [1].

2 METHODOLOGY

Outdoor spaces are recognised as privileged places for learning, allowing children to interact with their environment, explore nature and actively build knowledge. The sensory experiences lived in these spaces mobilise children, allowing them to build lasting knowledge [2]. Playing outdoors enhances children's physical, emotional and social development [3], [4].

The conceptualisation of affordances was defined as possibilities for action offered by the environment to a given organism [1]. This concept was further developed with a distinction between potential, perceived, used and prohibited affordances. Potential affordances exist regardless of whether they are recognised; perceived affordances depend on the subject's perception and experience; used affordances result in concrete actions; and prohibited affordances are those that are not allowed due to external factors, such as adult interference [5], [6].

Recent studies demonstrate the positive influence of affordances in educational contexts, reinforcing the need to plan and enrich outdoor spaces with pedagogical intent [7], [8], [9].

Educators play a key role in designing outdoor spaces that foster exploration. It is emphasised that professionals should observe and listen to children to organise the space according to their interests and needs, making it aesthetically appealing, safe, challenging and pedagogically rich [10], [11].

This study was conducted at a Private Social Solidarity Institution (IPSS) that provides nursery, pre-school and primary school education. The pre-school education followed the High-Scope model, promoting autonomy and active involvement of children in routines and learning.

The group observed consisted of 23 three-year-old children. The classroom was organised into areas of interest: library, writing, construction, games, painting and science. The outdoor space included a playground, playing field, green area and vegetable garden. It was valued as a space for free and spontaneous exploration, where adult intervention was only carried out when necessary.

A qualitative approach was followed, based on participant observation, photographic records, field notes and observation grids, collected during moments of free play. This methodology allowed for an in-depth understanding of the children's spontaneous interactions and behaviours in relation to the environment.

3 RESULTS

The observations revealed a high level of interaction between the children and the different elements of the outdoor space. Among the affordances identified were running, symbolic play, the use of loose materials, contact with nature, and cooperation in group games. For example, the use of sensory panels outdoors allowed not only for tactile and visual exploration, but also for the development of language and imagination.

The children were active, curious and motivated to explore, revealing problem-solving skills, initiative and autonomy. The perceived affordances were often shared and updated based on peer observation, demonstrating the value of social interaction in the learning process.

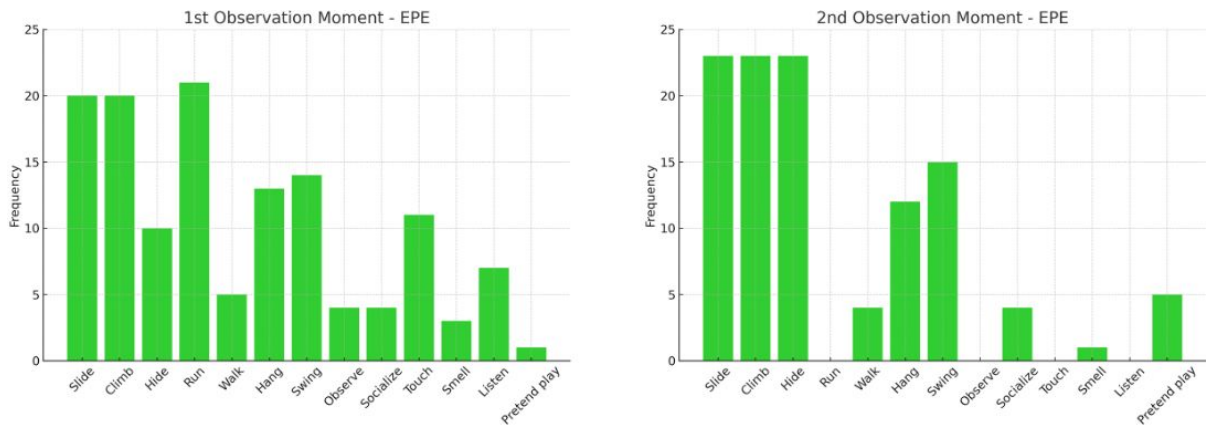
The presence of the educator as an attentive observer and facilitator of experiences was fundamental to safety, encouragement and the expansion of learning. The careful organisation of the outdoor space and freedom of choice were decisive elements in the quality of exploration.

3.1 Graphical representation of affordances observed in EPE

Following a qualitative analysis of children's interactions in a preschool setting, the actions most frequently enabled by outdoor spaces were systematically recorded and categorised into three distinct types of affordances: physical, sensory and social. This categorisation provided a clearer understanding of the opportunities for action that the environment offered, and how the children perceived and acted upon them.

The observations were carried out at two distinct moments, enabling an evolutionary analysis of how children progressively engaged with the environment. By comparing these moments, continuities in the use of certain affordances could be identified, as well as transformations indicating growing familiarity with the space, increasing confidence in using structures, and diversified behaviours.

The figures below summarise the collected data, highlighting the most common categories of action. They show that physical affordances predominate, sensory exploration plays a variable but significant role, and symbolic and social dynamics gradually emerge. This provides a comprehensive picture of how outdoor spaces support multiple dimensions of child development.



Figures 1 and 2. Graphs referring to the 1st and 2nd moments of observation of affordances

A comparative analysis of the two observation periods (figures 1 and 2) reveals continuity and change in how children use and adapt outdoor spaces. Motor actions such as 'sliding', 'climbing', 'running' and 'hiding' predominate in both moments, highlighting the central role of physical affordances in fostering gross motor activity. These behaviours, which are deeply rooted in children's natural need for movement, reflect both individual dispositions and the structured opportunities offered by the environment to support this type of action.

However, qualitative changes emerge from the first to the second observation that suggest an evolution in the children's relationship with space. In the second observation, behaviours such as 'swinging' and 'hiding' become more prevalent, indicating a more intricate exploration of structures, enhanced motor coordination, and often, the onset of socially oriented play, including chase and hide-and-seek games. This can be interpreted as evidence of growing familiarity with the environment, in which children progress from basic actions such as running and sliding to activities that require bodily mastery and, often, cooperation with peers.

By contrast, sensory affordances such as 'smelling' and 'listening' decrease during the second observation. This reduction may be linked to the fact that sensory exploration is more prevalent during initial encounters with a new environment, when novelty prompts children to discover their surroundings through their senses. As familiarity increases, attention appears to shift towards motor, relational or symbolic engagement. Therefore, the decrease in sensory actions should not be viewed as a loss, but rather as an indicator of a developmental transition towards more complex forms of interaction with the environment.

Similarly, although not frequent, symbolic behaviours such as 'pretend play' persist, albeit at lower levels. This persistence is significant as it shows that, even in contexts that are strongly shaped by physical affordances, children create spaces for imagination and narrative construction. Outdoor environments can therefore be understood as polysemic spaces that simultaneously host opportunities for intense bodily action and symbolic projection.

The evolution observed across the two stages highlights the importance of viewing outdoor play as a dynamic and progressive process. Rather than mere repetition, what emerges is a trajectory of appropriation, whereby children progress from initial sensory exploration to more structured, diverse, and occasionally cooperative activities. This interpretation aligns with ecological approaches to development, which view children as active agents who identify, select and transform the affordances of their surroundings.

From a pedagogical perspective, these findings emphasise the importance of designing outdoor spaces that are rich and challenging, incorporating multiple layers of affordances — motor, sensory, relational, and symbolic. Only such environments can adequately support the complexity of child development by enabling the interconnection of body, mind, imagination, and social interaction.

4 CONCLUSIONS

The outdoor space proved to be an educationally rich environment that contributed decisively to the children's holistic development [2], [3], [5], [6]. The diversity of affordances observed allowed for freedom, autonomy, creativity, and physical and emotional expression. A clear progression was

revealed by the comparative analysis of the two observation moments: from initial sensory affordances, such as 'smelling' and 'listening', to increasingly complex motor and symbolic affordances, including 'swinging', 'hiding', and 'pretend play'. This trajectory reflects the evolving way in which children appropriate space, progressing from immediate discovery to more elaborate, imaginative, and socially mediated forms of engagement.

These findings emphasise that outdoor spaces should be regarded as an integral part of the learning environment, not just as recreational areas [10], [11]. They support the view that such spaces nurture motor competence, as well as symbolic creativity, imagination and cooperation with peers. The variety and richness of the available affordances reinforce the ecological perspective that children actively construct meaning through their interactions with the environment.

Educators play a central role in amplifying these opportunities by intentionally shaping safe environments, aesthetically engaging and pedagogically challenging. Through reflective practice and attentive listening to children, educators can enhance the diversity and quality of perceived and used affordances, ensuring that outdoor spaces fully support multiple dimensions of development.

It is hoped that this study will contribute to the recognition of outdoor environments as transformative contexts where the body, mind, senses and social relations converge, and inspire future research that further explores the pedagogical value of affordances in early childhood education.

Outdoor exploration is revealed to be a dynamic process evolving from sensory, to motor, to symbolic affordances. This trajectory highlights the significance of diverse, challenging and open-ended environments in fostering comprehensive child development, where the body, imagination and social interaction are closely intertwined.

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