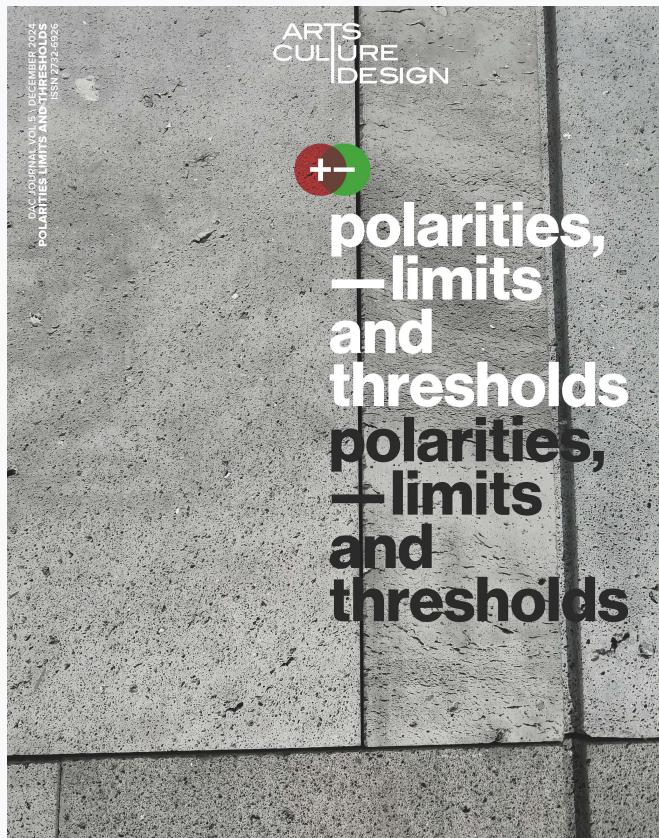


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CHILDREN CREATE EMOTIONAL PLACES (THE HUT). DESIGN PRACTICES IN RELATIONAL, EXPERIENTIAL AND ECOSOMATIC PEDAGOGICAL APPROACHES, IN RESPONSE TO THE CONTEMPORARY SCHOOL MINDSET

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CHILDREN CREATE EMOTIONAL PLACES (THE HUT). DESIGN PRACTICES IN RELATIONAL, EXPERIENTIAL AND ECOSOMATIC PEDAGOGICAL APPROACHES, IN RESPONSE TO THE CONTEMPORARY SCHOOL MINDSET.

ABSTRACT

In this article it is argued that the lack of proximity to the school environment and learning hinders the holistic development of children. What is missing in contemporary learning is the development of children relationships with the emotional, social and environmental world and most importantly with themselves. Community build-up is deemed essential in this research for collaboration, active engagement and participatory planning in an everyday learning context. Collaboration within the community is intended to improve the children's daily lives and not simply to improve their performance in a learning subject outside their own interests and culture. In this way, children are actively and spontaneously involved in the events that they themselves create. The experiential situations stem from children everyday life, generating intense emotion, a key feature for their all-round development. Children experiences are formed in a playful, multimodal, open and interactive field with the community.

In this research a holistic scheme of work is approached, with intensive active engagement, creative play in nature, kinesthetic action, and ecosomatic perception. At the same time, by intervening experientially and participatively in the natural landscape of the school, students through ecosomatic pedagogy understand both the environmental and material cultures as a concept with permeabilities. In relational experiential pedagogy, the interactive dynamics of persons (from the perspective of their

emotional engagement) with their environment is important. Person and environment do not constitute two separate entities that interact but they rather constitute a single condition of existence in the world. Thus, the atmosphere of the school changes as children relate directly and intensely emotionally to individuals and the environment.

INTRODUCTION

It is now a given that the nociarchic character of the school is not sufficient to express the needs of the child (Kalouri-Adonopoulou, 1999, p. 37), neglecting more than it should the social and emotional aesthetic aspects of his/her personality. The educational system, trapped in the impasses of encyclopedism, turns the educational process into an endless verbiage and a futility, since the connection of knowledge that has not been acquired with the activation and mobilization of the subject, is lost and indeed very quickly (Chrysafidis 2000, p. 66). What is required today is not so much skills as the ability to acquire skills and transform them. Similarly, it is found that without the parallel development of emotional intelligence, the individual cannot deepen concepts, become responsible and empathetic in his/her relationships with others. The curriculum that wants to be creative aims at the utilisation of all the individual's potentials in a universal and not fragmented way, with the ultimate goal of connecting knowledge to life. It should provide for processes relevant to experimentation with the unknown and all this in relation to the child's inherent tendency to investigate and learn, mainly how to think rather than what to think (Xanthakou, 2011, p. 79). In order to implement the above objectives, education must turn to introducing of creativity in everyday teaching and practice and not only in the form of specific lessons. When creativity is fostered, the emotional, social and moral development of the child is facilitated (Xanthakou, 2011, p. 77). "Creativity is a universal characteristic of self-realization" (Gowan et al., 1967, p. 26).

The main purpose of this research was to study how children can naturally experience art in their everyday life. While the most ideal context seems to be aesthetic education, which has the potential to potential to include the basic principles of a lively educational process, meaning those of learning experience, proximity and self-activity (Krustalakis, 2002, p.25). The premise is that art and culture cannot be separated from everyday life, as well as that "Aesthetic education is not only acquired through the learning process, but also through everyday life" (Glykofrydi-Leontsini, 2006, pp. 331-332).

The aim in this pedagogical research is to welcome everyday life as a continuous reconstruction by transforming experiences (Dewey, 1934). It is equally important that education promotes experiential learning, within the wider field of life as felt and experienced by students. In this context, facts and situations stem from everyday life, as well as from the experiences and concerns of the child, created within the social environment where it lives (Chrysafidis 2000, p. 17). The child's lives and activities are legitimately transformed into an experiential, playful, multimodal, open and interactive field with the community. After all, the child is creative when it is in harmony with the needs and interests of its environment (Lowenfeld & Brittain, 1975) as the aesthetic education has the ability to regulate the psyche of the child (Vygotsky), to identify with humanitarian education (Eisner, 1965) and to build healthier societies (Eaton, 1989).

This article will study the experiential perception of students in an interactive community environment that was established in relation to the large school community

in the context of an art class. In the research, an axis of work projects with a sustainable and interventionist character was developed, in the natural micro-scale of the school via the formation of a community. Following the experiential method the children create what they themselves have declared that they desire, in this case a house. The action took place in the natural environment of the school with a strong eco-physical and relational interweaving of the community. The actions, the perceptual development, the relationships, the ecological and sustainable consciousness of students were studied in a free, open and playful action format, through the methodological framework of Action Research. Through the thematic analysis, the key conceptual meanings of the project were captured, which helped to decode the meanings of the project and lead to the scheme of experiential, ecosomatic¹, relational² pedagogical approach and participatory design, as a counterpoint to the distorted mindset of the school routine.

2. THEORITICAL FRAMEWORK

THE IMPORTANCE OF EMOTION THROUGH THE HOLISTIC-EXPERIENTIAL LEARNING METHOD

According to Konstantinos Bakirtzis (2005) experiential learning activates the individual, arouses its interest and co-motivates it. Learning is triggered through the emotions of the experience. Learning is at the same time a social and emotional activity. The emotion which is the object of knowledge, influences both the assimilation of knowledge and the behaviour. According to John Dewey, a primary and basic human need is emotion, which leads to the psychological need for the formation of motivation and interests not only for action but for all psychosomatic functions. Whereas, even today in education, priority is given to reason over emotion, to facts over values, to spirit over intuition, to material over spirit, to functional values over intrinsic ones (Lithoxoidou, 2005, p. 847). So that segregation, fractionalization and materialistic worldview isolate and downplay the spiritual aspects of reality (Lithoxoidou, 2005, p. 847). The school has to orient its teaching intervention towards the emotional experience in order to achieve learning and development. The best educational proposals, programmes and logistical infrastructure risk leaving the student indifferent if they fail to move him or her, if they don't create motivation and interest (Bakirtzis 2006).

Experiential learning does not conflict with theoretical knowledge and its deepening. The individual is a single entity and as such must be treated, as in all its activities (Bakirtzis, 2005, p. 75). The holistic nature of live learning wants individuals to participate through their senses, emotions and cognitive abilities. It focuses on sensation, making learning more personal and emotional. It fosters cognitive and emotional development as well as the creation of relationships with oneself, other participants, the instructor and the world in general. The process in this kind of active learning is continuously shaped until the participants acquire the ability to recognize, evaluate and reconstruct the experience in order to give it meaning (Triliva & Anagnostopoulou, 2008, p. 54-5). With experiential learning we enter a holistic-global mode of child development and learning where biological, social, emotional and cognitive developments, affect and influence each other (Schirrmacher, 1995, p. 42).

¹ Ecosomatic, is a new concept that recognizes the human body as an integral part of the global ecosystem, while the ecology of our body becomes part of the ecology of the earth. It is a new movement that explores, bodily sensory experience in relation to the environment

² Relational learning requires a deep interaction with the inner self, with other humans, living beings, things and places.

THE VALUE OF THE SOCIO-SPACIAL DIALECTIC IN CHILDREN'S EXPERIENCE

Today, the prevailing trend in school life in Greece is that the “built-in learning in classrooms is reduced to tasteless repetitions of pseudo-activities that shrink the child, alienate it from the process of knowledge itself, and isolate it from critical interaction with its environment” (Tsoukala & Germanos, 2020, p. 15). Children spend approximately six to eight hours a day at school, with the result that their identity is increasingly aligned with predetermined places, routines and activities. The standardized format of the school setting, confines children to the inside of classrooms and eliminates important aspects of learning offered by outdoor spaces, such as challenge, exploration and risk-taking (Stephenson, 2009). The socio-spatial structuring of the individual, according to contemporary sociological, psychological, psychoanalytical, anthropological and neurophysiological scientific trends, orients education in open, flexible, fluid and with the urban and wider environment intertwined situations (Tsoukala & Germanos, 2020, p. 16). In other words, a cornerstone of a truly child-centred education is the dimension of space, which should provide children with rich stimuli in spaces and environments, opportunities for engagement and autonomy, multiple challenges of active participation in the learning process, interaction and collaboration, social bonds, creative exploration and expression. That is, flexible spaces that provide stimuli for creative learning (Epstein, 2007).

The educational environment is a socio-spatial structure which is interwoven with both spatial and non-spatial practices of the educational process (Charalambous & Psathitis, 2020, p. 232). The material environment offers accumulated information to children and an opportunity to communicate with the man-made and natural environment (Trimi, 2005, p. 556). The concept of connecting to space can embody both the interface with the physical and social context (Altman & Low, 1992). Children in a space can discover countless new possibilities and develop activities that combine physical, symbolic, social, and cultural elements into an unbroken whole (Costal, 1995). When functioning as an active subject, the child has the potential to explore and intervene in space, alone or by communicating and interacting with others (Germanos, 2020, p. 33).

THE IMPORTANCE OF BIOFRIENDLY DESIGN AND THE ECOLOGICAL NATURE OF CHILDREN

It is desirable for children to be taught live the values and the process of life itself through a playful and revelatory way. According to Tim Ingold (2000, p. 18) biological as well as cultural skills are developed and integrated into the human organism through practice and education in an environment. Active engagement with the environment seems to create an ecological context through the relations that are created, in which learning occurs in a natural and existential way. Thus, by identifying with other beings (animate and inanimate) the individual realizes that the interests of the environment are also its own and spontaneously undertakes to defend them, without being imposed by any moral principles (Protopapadakis, 2008, pp. 57-58). Through biophilic design, students connect emotionally with the events of natural environment, creating a deep engagement with nature. ‘Self-realisation’ an important concept of Deep Ecology is the process through which people perceive themselves in an intense interplay with the rest of nature (Georgopoulos, 2002, p. 309).

Bill Devall and George Sessions (1984, p.305) taking this idea further, argue that Deep Ecology requires a more advanced maturity that leads beyond

identification with humanity to an identification with the non-human world. At the same time, studies of young children show a sense of unity with the non-human world, where the boundaries of self and others are initially absent (Rochat, 2003). All of the above findings conclude that ecopedagogy is consistent with Deep Ecology's goals (Washington, 2018) of biophilia and self-realization by teaching children what they already more or less know on their own.

3. THE METHOD

In this article there are presented the results in 1 of the 17 experimental work projects that were implemented during the basic research of the writer. 25 children, aged between 7 and 12 years, were active in the field research which took place within an Experimental Greek School for six months.

THE MAIN RESEARCH QUESTIONS ARE:

1. Whether holistic experiential learning through aesthetics can shape a culture of aesthetic literacy among primary school students?
2. Whether aesthetic development as a live experience can engage children in participatory design by creating social and relational networks that aim at collaborative activities. Can children be involved in school design decisions? How does participatory design relate to sustainability and aesthetics within school understand their role and responsibility in the environment, looking forward to become adults with sustainable-sensitive literacy?
3. Is the everyday contact of young children with the environment and the material world, more capable of shaping aesthetic experiences than conventionally, detached from real life, art education?

4. ABOUT ETHICS AND RESEARCH SUBJECTS

This research was approved by the Ethics Committee of the University of West Attica, as well as by the management of the Experimental School where it was conducted and finally signed by all the parents of the participating students. The survey focuses on primary education and includes students from seven to twelve years old. In general, primary education provides a fertile ground for research studies aimed at activating perception, change and personality formation.

Primary education lends itself to interventionist type work plans, since children from 5 to 10 old, are at their most receptive age (Kalouri-Adonopoulou, 1999, p. 89). Children at this age learn mainly experientially and communicate emotionally. They learn about the world through their senses and emotions, they are exploring and discovering everything around them, but also, they learn how to learn. However, not much research on aesthetic and visual education in children of this age was found in the international literature. In addition, in the few studies that were found and had been conducted in the daily field of learning with young children on the subject of visual arts, it was found that they were mainly limited to the subject of painting, which was considered in this research an

outdated form of aesthetic learning and also inadequate, as the aim is for the student to experience aesthetic issues through its everyday life.

5. THE EDUCATIONAL RESEARCH ACTION IN SCHOOL

According to the characteristics and requirements of the present applied research, the Educational Action Research is the most appropriate method, since it is mainly characterized by its participatory and collaborative nature, the open dialogue, the critical and reflective dimension, the circular and formative character of the processes. Gilbert De Landsheere (1996) says that the purpose of action research is to link what traditional research tends to separate: theory and practice, research and action, psychology and social, emotional and cognitive. Action Research which is intertwined with educational research (McNiff & Whitehead, 2000) is interventionist and requires the involvement of participants. The researcher is asked to propose solutions or ways to bring about change and monitor the effectiveness of these changes (Tsiolis, 2014, p. 51). Research and teaching are treated as an indivisible whole, addressing issues that have been identified and improving the educational process as a whole. Efforts are made for personal and group change in practices, beliefs and perceptions (Katsarou, 2016, p. 295).

Action Research aims to be as participatory, collaborative and as inclusive as possible. All active subjects are involved as partners in the research decisions, regarding both the content of the research and as to the methods that are used (Katsarou, 2016, pp. 246-253). Action research enables the study of a situation in a holistic way where all factors are treated as a set of relationships that interact with each other (Glubou & Kakana, 2020, p. 100).

6. USE OF THEMATIC ANALYSIS TO FOCUS ON THE MEANINGS

Thematic analysis was used to analyze the qualitative data. It is a flexible method of analysis, which can be used with multiple modes of interpretation which originates from different theoretical or scientific starting points (Braun & Clarke, 2012). It is a method of identifying, highlighting and describing recurring meaningful patterns, i.e. 'themes' that emerge from the qualitative research data (Maguire & Delahunt, 2017). These themes are revealed through systematic their identification, organization and understanding in the total research data set (Braun & Clarke 2012). The analysis process requires fine manipulation in order to meet the in-depth analysis of the data. The emergence of a theme is mainly determined by the extent to which it is considered somewhat important in relation to the research purpose (Braun & Clarke, 2006). This means that the researcher will have to make sense of, connect and interpret the research material, according to specific scientific assumptions and the overall research design. While the researcher traced the numerous patterns of meaning and gained access to collective ways of making sense, she focused on the meanings that were most appropriate for answering her research questions (Braun & Clarke 2012, p. 57; Tsiolis, 2018). Virginia Braun and Victoria Clarke (2006, p. 87) speak of the researcher's 'immersion' in the research data set. Especially in this study with numerous different data formats, Thematic Analysis seemed to be a particularly useful method to reduce the meanings by an abstractive process in order to capture the important elements and concepts contained in the data (Ayres, 2008). Thus, coding is a dual process that aims

through conceptualization to reduce the complexity of the material and at the same time open up new interpretive possibilities and conceptual frameworks. Coding functions more as conceptual schemas, which on the one hand enable the data to be understood and on the other hand are malleable and amenable to transformation.

7. THE METHODOLOGICAL TOOLS. OBSERVATION AND REFLECTION DIARY

Observation means “seeing” with all my senses a situation that is evolving. At the same time the information is collected and recorded with the scope of studying it afterwards in order to be able to draw conclusions. By observing the reality where the phenomena take place, the true elements that make up the situation can be identified (Kedraka, 2003). After observing and listening, the teacher analyzes the collected data. What differentiates the observation method from others is that the researcher studies the social phenomena which are produced in real-life conditions (Kyriazi, 1999). Observation is ideal for research in the early years of education, where the active involvement of children can be achieved through interesting activities as they act in material space by using their whole body (Tzekaki, 2007, p. 110-111). Suzan Stacey (2020, p. 50) encourages educators to observe how children manipulate materials, whether they insist on a single way, or other more unusual ways.

Observation in Action Research is always participatory, in the sense that the observer participates in the collective life of those he observes, looks, listens, talks with them and they know that is observing them and for what purpose. That is, he is also part of the educational situation he observes (Katsarou, 2016, p. 288). In participatory observation, the observer-researcher becomes a “player” in the action, appropriating one of the roles he studies (DeWalt & DeWalt, 2010) and collecting data through its active participation in the group activities (Iosifidis, 2003, p. 56). Reflection helps the educator to elongate the moment in order to reflect on what is happening. Observation and reflection soon become a habit, a natural and spontaneous way for the teacher-researcher to function in the classroom. Stacey (2020, pp. 232-240) argues that this approach allows educators to become researchers within their own workplace. They pause for a moment what they are doing and connect the information to what they have seen or what they are about to do next. The pause and the break from action, gives the teacher the space to make sense of what is being observed. It is often a period of instability as it attempts to unify thought and action. The diary is the most dynamic and creative tool of qualitative research, contributing significantly to the development of the researchers’ reflection. Through the diary technique the teacher becomes more aware of what is happening around him/her, what he/she is doing in each situation, knowing what is unformed in him/her, but also himself/herself as an educator. He/she discovers the wisdom that lies within, confirming or challenging his/her beliefs. Journal writing is natural because of the effortlessness of writing, unhindered by second thoughts or expectations of others (Katsarou, 2016, p. 291). The diary in this research was the most important tool as it preserved events, ideas, concerns, reflections and feelings (Katsarou, 2016, p. 292).

8. RESULTS

The aim of this Action research was for young children to approach art in a natural way, through their own childhood culture and needs. The research, studies the ways in which

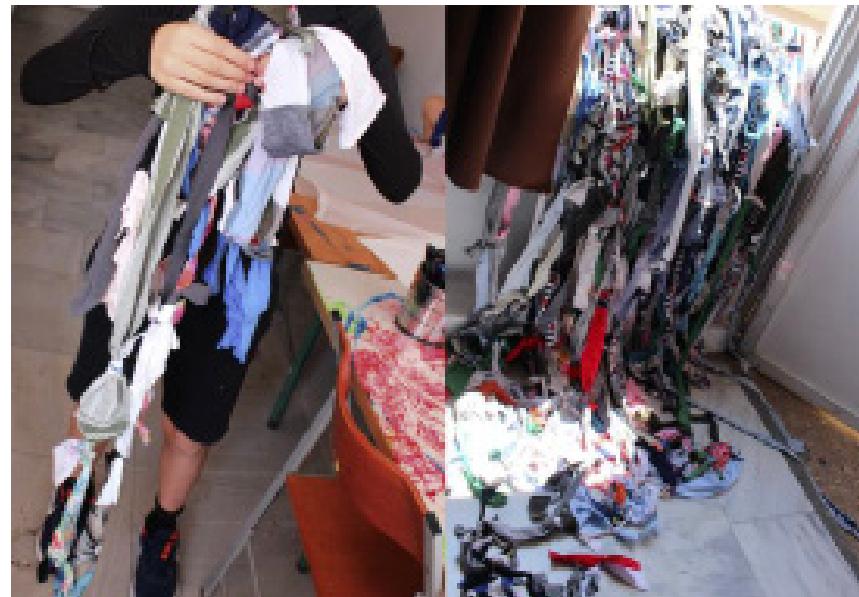
children's aesthetics are perceived and shaped within contemporary everyday material culture, and material culture is considered as the means for a more meaningful connection to aesthetics than conventional real-life detached education based on formal academic art. Children also act participatively within a community, symbolically simulating real life, thus learning cooperation and the right to participate in the decisions of the space in which they live. In addition, by cultivating an aesthetic appreciation of material culture and space through sustainable education with aesthetic implications, children understand their role and responsibility in the environment.

9. THE EMOTIONAL PLACE. THE SHELTER AS AN EXTENSION OF THE DWELLING

In this project students used their old clothes to construct a spatial simulation of a shelter in the school's woodland. They re-cycled by cutting and tying the clothes to form large ropes (Figure 1) with which they wrapped tree trunks together (Figure 2). That project was created by the children's desire to create a sort of habitat for children within the schoolground. Children named it on their own as a hut.

Students created this "refuge-place" with their own hands, ideas and thoughts (Figure 3). For young children it is very important to create "places" and very often they simulate them with the idea of "home ". It was observed, especially in young and middle

Figure 1.
Children re-cycled their own clothes
by cutting and tying them to form large
ropes



children, that the “hut” meant for them a place where they could isolate themselves, or to bring their friends there. Jay Appleton (1975) bibliografia considers that the concept of shelter is of paramount importance and that it represents the “nest-place” symbolizing protection, security and isolation. Gaston Bachelard (1982) in the light of phenomenology, introduces us to the intimacy and dreaming that the dwelling offers the individual and likens it to a shelter, referring to the ‘poetic images’ of primitive shelters such as the hut, the shell and the cave, “The house where we are born is more than a dwelling body, it is a dream body. Each of its shelters has also housed a dreaming” (Bachelard, 1982, p. 42).

Also, there is a case that children needed to transfer the home environment to the school, representing the family through a symbolic game. And perhaps this symbolic game played the role of a transitional space. That is, that psychological space in between

Figure 2.
Children wrapped tree trunks together with the recycled ropes to form the “hut”



Figure 3.
Children's desire was to create a sort of habitat in the schoolground. Children named it as a hut



objective reality and its subjective vision, an environment that exists both inside and outside the body, a space of composition that is always already inhabited by many others (Winnicott, 1971). This transitional and safe context, combined with play, gives children the freedom to explore and learn creatively through environments to co-exist with others (Winnicott, 1971). On the other hand, the strong need to create a “shelter” symbolizes the need of communication with others in a special place. Researchers argue that people are attracted to those natural environments that are products of socialization processes (Knopf, 1987). “The house is not at all a concept of architecture, but of sociology, psychology and psychoanalysis (...)” (Pallasmaa, 2020, p. 132).

10. THE RELATIONAL PLACE

The aim through the in-situ installation of the hut in the forest was to transform school space into a place of encounter and interaction, lined with experiences and emotions (Clark, 2010). In literature, middle childhood has been identified as an important stage strongly associated with place (Sobel, 1993; Chawla, 1992; Hart, 1979). Yi-Fu Tuan (1977) suggests that after 6 to 8 years, place experiences consistently accompany children until adulthood as their interest leaves the egocentric internal context and increases for the everyday environment. Place is experienced by the child at its greatest intensity and spatial elements such as paths, hiding places and other special places which are involved in their daily lives more than in any other age period (Ward, 1978, p. 23). While children’s need to create spaces for themselves is directly related to the construction of ‘personal’ space (Wallon, 1984) however, the identity of space is linked to the identity of the ‘ego’ and in this respect it emerges as very important in child development.

The relational meaning of space arises through the relationship between people and places (Lefevre, 1977) and in this sense there is no space that is not characterized from relations. Furthermore, education fails to address the spontaneous and unpredictable teaching situations that emerge from children’s active participation, such as the places that are formed by them as they play (Germanos, 2014). In practice, these situations occur thanks to the freedom that children have in their relationship with space, which allows them to form micro-environments correlated with their interests and behavioural tendencies, that is, to create ‘places’ (Germanos, 2014). Therefore, a space when invested by children’s actions *per se*, offering opportunities for collaborative and creative interaction that function as learning experiences, can gradually become a place, following the configurations created by the modifications of material elements or the semantic mutations in the context of children’s body movements and wanderings and personal experience (Germanos, 1997). Alison Clark (2010) states that children during a collaborative mode of working acquire an environmental spatial literacy because the places created by themselves function as material fields of education and learning environments, rather than as empty spaces containing standard forms of organization and function that lead to limited predetermined and inflexible educational practices.

PARTICIPATORY DESIGN AS AN EDUCATIONAL PRACTICE

THROUGH THE FORMATION OF A COMMUNITY

In this work project through participatory-social design and community-based learning, the interaction between the group team and the school community was observed in a

two-way way, with the aim that both sides feel like participants and active players in their own space. The children took action through participatory planning, taking into account the interest of the student community by interacting with other children and teachers in the school. The relationships and symbolic creativity that develop in the children's social environment are interwoven in the context of participatory design, revealing possibilities for transforming relationships. Thus, the catalytic role that interpersonal relationships, multimodal expression and polyphony play in enhancing children's collective symbolic and experiential interdependence with their environment and the people around them is ultimately highlighted (Patsarika, 2020, p. 197). Participatory experience is not just a method or a set of methodologies but a mindset and an attitude (Germanos, 2010). The aim is to shift, from passive to active participation of children and to activate them children in the decision-making process (Gesiou & Sakelariou, 2020, p. 297).

Children, as protagonists and regulators of their daily life at school, make decisions about the space in which they consume about 1/3 of their childhood. Dewey (1907, p. 44) saw the school as an 'embryonic community' which is a thumbnail of society and argued that education should be linked to the real experiences and challenges of the community, providing opportunities for students to be actively involved in problem solving. What creates a sense of community is the expression of children's opinions, the appropriation of the space they live in and the consolidation of their rights in the form of action at the local level (Trikalitis, 2014/2015). Thus, activating the children's school space in a preparatory stage of real life and at the same time hoping for children to become in the future culturally informed and aware citizens (Chapman, 1993). Education should be a collaborative and participatory process that actively engages the community and allows children to interact and participate in shared experiences (Dewey, 1986, 1907). When the educational process is based on experience and interaction then it can resemble a laboratory where students work as a team in a pleasant atmosphere (Dottrents, 1974).

11. A DIALOGIC, ECOSOMATIC AND LIVE PEDAGOGICAL APPROACH

What usually happens is that students rarely leave the classrooms to do something in the school grounds; the children in this research acted in the real field of the school in a highly interactive way. They took on any task, as demanding as it might be, as long as they were active in the school ground other than the usual classroom. In this energized, dialogic, multi-sensory and playful space, participatory and experiential learning emerged. "Dialogic and playful space emphasize the incomplete, open, in-the-making space, the fluidity, the material and signifying-symbolism of space, while activated space denotes the implicit involvement of space in the child's activities within a collaborative condition of school life" (Tsoukala, 2015).

During the construction of the 'hut' while the children were weaving the fabric ropes into each other to form its casing, they seemed to have invented a kinesthetic body-play (Figure 4). "When we experience a structure, we unconsciously imitate its formation with our bones and muscles" says Pallasmaa (2022, p. 101). The students did not have to say much to each other, they spoke with body language. The children were engaged in this kinesthetic play and hardly needed coordination or any other help from the teacher-researcher in a quite demanding task. They handled the environment with spatial awareness and made appropriate use of their material stock (Figure 5). Eliki Diamantouli and Athina Fousteri (2020, p. 304) say

that “The children’s bodies play and interact with each other. With the catalytic potential of imagination, the ingredients of play are finally stirred into a unified mixture. Space and play are bound together in a special relationship that activates both space and play through performance”. What is observed is that the sense of movement not only gave rhythm to the work but also form to the construction. In a playful and kinesthetic way, the children materialized their movement and transformed it into a tangible yet permeable material substance. The children’s bodies in this case were the tool that manipulated the material medium.

Figure 4.

During the construction of the ‘hut’ while the children were weaving the fabric ropes into each other to form its casing, they seemed to have invented a kinesthetic body-play.

Figure 5.

The children handled the environment with spatial awareness and made appropriate use of their material stock (Figure 6).



What is established is a deep connection between movement and materiality as primitive elements of the environmental arts, with pedagogy emerging as a choreographic force that brings mobility and materiality together in ways that create environments, events, experiences, ecologies of learning and of participation (Rousell et al., 2018). The body becomes part of the experience, speaking now of a live-ecosomatic approach to place. In reality, the body and psyche are shaped according to principles that guide the self-balancing processes of the natural world (Beauvais, 2012). By advancing the ecosomatic approach, knowledge can be formed from both embodied and sensory perception as well as psychology (Beauvais, 2012). A key feature of the ecosomatic-biographical approach is the focus of attention on the relationships between entities and how they mutually interact in the process of their dynamic interactions in the development of meaningful places (Hunginis & Liapi, 2015). This means that a phenomenon cannot be studied in isolation but only relationally, i.e. in relation to its context, the possibilities offered by its environment and the embodied subjects interacting with it (Ungrinis & Liapi, 2015).

Taking the concept of experience learning a little further, Kyriaki Tsoukala (2015) argues that pedagogy shifts from the active learning student and group dynamics to the universal communication of the child with everything that surrounds it. This communicative intensity and scope are encapsulated in the term relational-centred-experiential-pedagogy by setting it as a prerequisite of operation, the emotional engagement of the child with its environment, both cultural and physical. The relationship with the environment and others, synergizes the intrapsychic with the interpsychic through emotion, that has been caused by the live emotional experience (Tsoukala, 2015). According to Konstantinos Bakirtzis (2000) the experience activates the individual, arouses its interest and “co-motivates” it. Learning is triggered through the emotion of the experience. This emotion influences both the assimilation of knowledge and behaviour. Tsoukala (2014, p. 312) argues that it is the concept of “involvement” which refers to that inner experience characterized by self-concentration, intense and inner motivation, energy current, high degree of satisfaction, contact with the emergence of creative drive, leading to total involvement of the person and full activation of his/her abilities.

12. MEANINGFUL PLACES MADE BY CHILDREN

During the construction of the “hut”, the rest of the school children who happened to be in the courtyard at that time asked if they could also enter the space where the construction was taking place, until one student asked: “How much does it cost to enter the playground? I’ll pay whatever it takes to get in!” From the children’s reactions, it was clear that the construction of the hut resonated with the school community (Figure 4). Although the children had visited fantastic playground facilities in their lives, they longed to enter the hut created by their classmates as if it was a magical place. There is an explanation to all this, however, as prefabricated play spaces have a significant disadvantage in dramatically limiting the scope and development of play (Shackell et al., 2008). Fixed play structures with their predictable, limited options and adult-determined conditions of space use leave little room for children’s mobility and imagination. Play spaces that do not allow the transformations that children bring about, effectively deny them access to the world of imagination (Germanos, 2004). Instead of promoting spontaneity and creativity, playgrounds offer a configuration of guiding objects that inhibit children’s

imagination (Lefavire & Döll, 2007). On the contrary, spaces that are grafted with elements of the child's world of imagination and personality, but also modified for the needs of play, create the conditions for truly free play (Birbili & Papandreou, 2020, p. 494). The children who watched the construction of the hut may have been so keen to participate apparently because they understood that they could intervene in the project, just like their classmates. Moreover, children apparently identified more with the aesthetic creativity of their peers than with adults. In conclusion spaces that are constructed and conceptualized by children have a greater impact on them than adults' constructions.

13. CONCLUSIONS

This research argues learning that is produced on a relational and affective way, giving the learner a complete picture of the world through holistic perception. The research was applied in primary education where the experiential method is recommended, as at this stage children discover and learn about the world, sensorially and emotionally (Danko-McGhee, 2006 ; Schirrmacher, 2002). Through the work projects which developed in the physical spaces of the school, the children showed that they had a strong interaction with the environment, especially in the in-situ constructions or installations. The children loved to be outside of the classroom (as in Greece most days of the year are sunny) and interact with small fields of nature in the school. They managed their material sustainably, wisely and with economy. The material environment of the school is intended to be a field of intense experiences that stimulate children's desires, motivations and interests in order to develop and cultivate their intellectual, emotional and social powers (Tsoukala, 2014, pp. 40-41); Susan Stacey (2020, p. 167) argues that "When children step out of the classroom a whole world of new experiences opens up before them". The results showed that when children experience their world in a free and playful way, they learn more easily, creatively, more complexly and finally they form attitudes and life skills.

During the research and through practical methods of participatory design, the students transformed into individuals who could decide the best solution for the community that would represent its interests (Davidoff, 1965). They created a community culture and worked together with heterogeneities to achieve a purpose, building relationships and friendships. As time went by, the children took more and more initiatives for the good of the community and offered their creations without self-centeredness to the large school community. The children symbolically simulated real life, thereby discovering their right to participate in the decisions of the space in which they live. Additionally, by cultivating the aesthetics of material culture and space through ecopedagogical education, they understood their role and responsibility in the environment. Relational learning, however, did not stay at the level of human relations but moved to an ecological context where all elements of the environment are equal, discovering at the same time the ontological character of material. In this phenomenological approach to material culture, things were understood as events, as consequences of collective actions and practices, in which people, things and places were simultaneously involved (Dan Hick, 2010) (Figure 5).

In this work project a holistic scheme of education is approached, with an intense experiential activity, creative play in nature, kinesthetic action, and ecosomatic perception. The children's aesthetic perception towards material culture and natural environment was developed through participatory action. Pedagogy shifts from the active learner and group

dynamics to the universal communication of the child with what surrounds it, through a relational-centered-experiential-pedagogy setting as a prerequisite the emotional engagement of the child with its cultural and physical environment (Tsoukala, 2015). Relation-centred pedagogy focus on the communicative and interactive functioning of the members on the school community. By approaching these qualities of dialogic, polyphonic, playful, activated, interactive space, working with materiality and light, landscape and terrain, a new form of learning experience is formed (Tsoukala 2015). This study aims to form a pedagogy with more freedom and naturalness in the school environment. Children should not separate practical life from school life. School should become a natural place of development for children but also be linked to adulthood without creating gaps in the development of the individual. The closer learning is to the physical life of the individual, the easier the child's life can be harmonised with his/her adulthood.

REFERENCES

Altman, I., & Low, S.M. (1992). Place Attachment. *Human Behavior and Environment*, 12. https://doi.org/10.1007/978-1-4684-8753-4_1

Appleton J. (1975). *The experience of Landscape*. London: John Wiley & Sons.

Ayres, R.U. (2008). Sustainability Economics: Where Do We Stand? *Ecological Economics Review*, 67, pp.281-310.

Bachelard G. (1982). *I poiitiki tou chorou [The poetics of space]* (E.Veltsou & D.Hatzinikoli, Trans.). Athens: Hadjinikoli.

Bakirtzis, K. (2006), *Epikoinonia kai Agogi* [Communication and Education]. Athens: Gutenberg.

Bakirtzis, K. (2005). To Vioma kai i Simasia tou [The Life and its Meaning]. In A.D.Georgopoulos (eds), *Environmental education. The Emerging New Civilization* [Environmental Education. The New Culture Emerging] (pp.73-103). Athens: Gutenberg.

Beauvais, J. (2012). Focusing on the Natural World: An Ecosomatic Approach to Attunement with an Ecological Facilitating Environment. *Body, Movement, and Dance in Psychotherapy*, 7(4). pp.277-291. <https://doi.org/10.1080/17432979.2012.716081>

Birbili, M., & Papandreou, M. (2020). Dimiourgia Anoichtón Chorón Paichnidíou sto Astíko Perivallon: I Periptosi tou 'Pop Up Adventure Play' [Creating Open Play Spaces in the Urban Environment]. In K.Tsoukala & D.Germanos, *Paidiki Chorikí Afigimatiotita* [Children's Spatial Narrative] (pp.493-513). Athens: Epikentro.

Braun, V., & Clarke, V. (2012). Thematic Analysis. In H.Cooper, P.M.Camic, D.L.Long, A.T.Panter, D.Rindskopf, & K.J.Sher (eds), *APA Handbook of Research Methods in Psychology, Vol. 2. Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological* (pp.57-71). American Psychological Association. <https://doi.org/10.1037/13620-004>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), pp.77-101. <https://doi.org/10.1191/1478088706qp063oa>

Chapman, L. (1993), *Didaktiki tis Technis. Prosengiseis stin Kallitechniki Agogi* [Teaching art. Approaches to Art Education] (A.Lapourtas, transl). Athens: Nefeli.

Charalambous, N., & Psathiti, Ch. (2020). Theoritikó Plaisio gia ti Meleti kai Katanoisi Apodotíkon Ekpadeftikon Perivallonton [Theoretical Framework for the Study and Understanding of Efficient Educational Environments]. In K.Tsoukala & D.Germanos (eds), *Paidikí Chorikí Afigimatiotita* [Children's Spatial Narrative] (pp.229-241). Athens: Epikentro.

Chawla, L. (1992), Childhood Place Attachments. In I.Altman & S.Low (eds), *Place Attachment* (pp.63–86). New York, US: Springer.

Chrysafidis, K. (2000), *Viomatiki-Epikoinoniaki Didaskalia. I Eisagogi tis Methodou Project sto Scholeio*. [Experiential-Communicative Teaching. The Introduction of the Project Method in the School]. Athens: Gutenberg.

Clark, A. (2010), *Transforming Children's Spaces: Children's and Adults Participation in Designing Learning Environments*. London, United Kingdom: Routledge.

Danko-Mcghee, K. (2006). Nurturing Aesthetic Awareness in Young Children: Developmentally Appropriate Art Viewing Experiences. *Art Education*, (59)3, pp.20-35. <https://doi.org/10.1080/00043125.2006.11651591>

Davidoff, A. (1965). Advocacy and Pluralism in Planning. *Journal of the American Institute of Planners*, 31(4), pp.331-338. <https://doi.org/10.1080/01944366508978187>

Devall, B. & Sessions, G. (1984). The Development of Natural Resources and the Integrity of Nature. *Environmental Ethics*, 6(4), pp.293-322.

DeWalt, K.M., & DeWalt, R. (2010), *Participant Observation: A Guide for Fieldworkers*. Lanham, MD, US: Rowman Altamira.

Dewey, J. (1986). Experience and Education. *The Educational Forum*, 50(3), pp.241-252. <https://doi.org/10.1080/00131728609335764>

Dewey, J. (1934), *Art as Experience*. New York: Minton, Balch.

Dewey, J. (1907), *The School and Social Progress*. Chicago, US: University of Chicago Press.

Diamantouli, E. & Fousteris, A. (2020). A.B.C. from Participation: Playgrounds in the City of Larissa [A P.H. from Participation: play spaces in the City of Larissa]. In K. Tsoukala & D. Germanos, *Paidikí Chorikí Afigimatiótita* [Children's Spatial Narrative] (pp. 303-318). Athens: Epikentro.

Dottrents, R. (1974), *Paidagogiko kai Didasko. I Scholiki Paidagogiki kai i Eidiki Didaktiki* [Educating and teaching. School pedagogy and special education] (G.A.Vasdekis transl). Athens: Diptixo.

Eaton, M.M. (1989), *Aesthetics and the Good Life*. Cranberry, NJ, US: Associated University Presses.

Eisner, E.W. (1965). Toward a new Era in Art Education. *Studies in Art Education*, 6(20), pp.54-62.

Epstein, A. (2007), *The Intentional Teacher: Choosing the Best Strategies for Young Children's Learning*. National Association for the Education of Young Children.

Georgopoulos, A. (2002), *Perivallontiki Ithiki* [Environmental Ethics]. Athens: Gutenberg.

Germanos, D. (2020). Dimiourgontas ton Choro tou Paidiou sto Scholeio: H Prosengisi apo tin Plevra tou Christi kai o Paidagogikos Schediasmos tou Chorou [Creating the Child's Space at School]. In K. Tsoukala & D. Germanos, *Paidikí Chorikí Afigimatiótita* [Children's Spatial Narrative] (pp.31-55). Athens: Epikentro.

Germanos, D. (2014). Anamorfonontas to Scholiko Choro: Apo ton Choro ton Kanonismon ston Choro gia to Paidi [Reforming the School Space: From the Space of Regulations to the Space for the Child]. Proceedings of the Panhellenic Conference with International Participation. *Ana-Stochasmoi gia tin Paidikí Ilikia* [Reflections on Childhood] (M. Tzekaki & M. Kanatsouli eds) (pp. 448-467).

Germanos, D. (2004). To paichnidi, mia alli prosengisi tis ekpaideftikis diadikasias [The play, another approach to the educational process]. In P.Hadjikamari and M.Kokkidou (eds), *To paichnidi stin ekpaideftiki diadikasia* [The play in the educational process] (pp. 64-76). Thessaloniki: University Studio Press.

Germanos, D. (1997). To Yliko Pedio Agogis: Mia Didaktiki Prosengisi pou Stirizetai stin Paidagogiki Poiotita tis Schesis tou Paidiou me ton Yliko Choro [The Material Field of Education: A Pedagogical Approach Based on the Pedagogical Quality of the Child's Relationship with Material Space]. Proceedings of the 7th International Conference, Pedagogical Science in Greece and Europe. *Taseis kai prooptikes* [Trends and Perspectives] (M.I.Vamboukas & A.G.Chourdakis eds), (pp.444-458). Athens: Hellenic Literature.

Gesiou G., & Sakelariou, M. (2020). Schediasmos ton Exoterikon Choron ton Nipiagogeion kai i Symmetochi ton Paidion [The Design of Kindergarten Outdoor Spaces and Children's Participation]. In K. Tsoukala & D. Germanos, *Paidikí Chorikí Afigimatiótita* [Children's Spatial Narrative] (pp.281-302). Athens: Epikentro.

Globou, A. & Kakana, D.M. (2020). Ta Paidia Anaschediazoun to Choro tis Taxis tous: Mia Erevna Drasis sto Nipiagogeio me tin 'Prosengisi tou Mosaikou' [Children Redesign their Classroom Space: An Action Research in Kindergarten with the 'Mosaic Approach']. In K. Tsoukala & D. Germanos, *Paidikí Chorikí Afigimatiótita* [Children's Spatial Narrative] (pp.97-114). Athens: Epikentro.

Glykofrydi-Leontsini, A. (2006), *Aisthitiki kai Techni. Kritikes theoriseis* [Aesthetics and Art. Critical considerations]. Athens: Symmetry.

Gowan, C.L., Demos, D.G., & Torrance, P.E. (1967), *Creativity: Its Education Implications*. New York, CA: Hogn Wiley & Sons.

Hart, A.R. (1979), *Children's Experience of Place*. New York, US: Irvington Publishers.

Hicks, D. (2010). The Material Culture Turn: Enent and Effect. In D.Hicks & M.C.Beaudry (eds), *The Oxford Handbook of Material Culture Studies* (pp.25-98). Oxford, United Kingdom: Oxford University Press.

Ingold, T. (2000), *I Antilipsi tou Perivallontos* [The Perception of the Environment] (A.Vrettou transl, S.Nanoglou eds). Athens: Alexandria.

Iosifidis, Th. (2003), *Analysi Poiotikon Dedomenon stis Koinonikes Epistimes* [Qualitative Data Analysis in Social Sciences]. Athens: Kritiki.

Kalouri-Adonopoulou, R. (1999), *Aisthitiki Agogi* [Aesthetic education]. Athens: Hellen.

Katsarou, E. (2016), *Ekpaideftiki Erevna-Drasi. Polyparadeigmatiki Dierevnisi gia tin Anamorfosi tis Ekpaideftikis Praxis* [Educational Research-Action. Multi-paradigmatic Investigation for the Reform of Educational Practice]. Athens: Critical Scientific Library.

Kedraka, K. (2003). Methodologia Paratirisis [Observation methodology]. Retrieved March 10, 2024 from, <https://adulteduc.gr/>

Knight, L. (2016). Playgrounds as Sites of Radical Encounters: Mapping Material, Affective, Spatial and Pedagogical Collisions. In N. Snaza, D. Sonu, S.E. Truman, & Z. Zaliwska (eds), *Pedagogical Matters: New Materialism and Curriculum Studies* (pp. 13-28). New York, US: Peter Lang.

Krustalakis, G. (2000), *Diapaideagogisi, Poreia Zois* [Education, Life Course]. Athens: Lychnos Ltd.

Kyriazi, N., (2000), *I Koinoniologiki Erevna: Kritiki Episkopisi ton Methodon kai ton Technikon* [Sociological Research: A Critical Review of Methods and Techniques. A Critical Review of Methods and Techniques]. Athens: Hellenic Literature.

Landsheere, G. (1996), *I empeiriki Erevna stin Ekpaidefsi* [Empirical Research in Education] (G.Diplas eds). Athens: Tipothito.

Lefaivre, L. & Döll, H. (2007), *Ground-up City: Play as a Design Tool*. Netherlands: 010 Publishers.

Lithoxoidou, L. (2005). H empeiriki Erevna stin Ekpaidefsi. [The Emotional Dimension in Environmental Education. Weaknesses, Perspectives, Pedagogical Approaches]. In A.D.Georgopoulos (eds), *Perivallontiki Ekpaidefsi* [Environmental Education]. Athens: Gutenberg.

Lowenfeld, V., & Brittain, W.L. (1975), *Creative and Mental Growth*. New York, US: MacMillan.

Lefebvre, H. (1997), To Dikaioma stin Poli. Chóros kai Politiki [The Right to the City. Space and Politics] (P.Tourniotis transl, N.Karachalios, eds). Athens: Papazisis.

Magouliotis, N.A. (2002), *Eikastikes Dimiourgies mesa apo tin Paratirisi. Idees-Skepseis-Protaseis Drastiriotiton* [Visual Creations through Observation. Ideas-Thoughts-Proposals for Activities]. Athens: Kastaniotis.

Maguire, M., & Delahunt, B. (2017). Doing a Thematic Analysis: A Practical, Step-By-Step Guide for Learning and Teaching Scholars. *The all Ireland Journal of Teaching and Learning in Higher Education*, 9(3), 3351-3514.

McNiff, J., & Whitehead, J. (2000), *Action Research in Organisations*. Routledge.

Pallasmaa, J. (2022), *Ta Matia tou Dermatos. I Architektoniki kai oi Aisthiseis* [The Eyes of the Skin. Architecture and the Senses] (G.Tournikiotis transl, P.Tournikiotis eds). University Publications of Crete.

Pallasmaa, J. (2020), *Dodeka Dokimia gia ton Anthropo, tin Techni kai tin Architektoniki 1980-2018* [Twelve Trials for Man, Art and Architecture 1980-2018] (A.Sasa Lada & K.Xanthopoulos transl, P.Sultanis eds). University Publications of Crete.

Patsarika, M. (2020). O Symmetochikos Schediasmos Paidion kai Architektonon sto Scholeio os Topos Dialogou [Participatory Design of Children and Architects at School as a Place of Dialogue]. In K.Tsoukala & D.Germanos, *Paidikí Chorikí Afigimatiótita* [Children's Spatial Narrative] (pp.195-214). Athens: Epikentro.

Protopapadakis, E.D. (2008), *Perivallontiki ithiki. O Arne Naess kai i vathia oikologia* [Environmental ethics. Arne Ness and deep ecology]. Komotini: Sakula.

Rochat, P. (2003). Five Levels of Self-Awareness as they Unfold Early in Life. *Consciousness and Cognition*, 12, 717-731. [http://dx.doi.org/10.1016/S1053-8100\(03\)00081-3](http://dx.doi.org/10.1016/S1053-8100(03)00081-3)

Rousell, D., Cutcher, A.L., Cook, P.J., Irwin, R.L. (2018). Propositions for an Environmental Arts Pedagogy: A/r/tographic Experimentations with Movement and Materiality. In A.Cutter-Mackenzie, K.Malone & E.Barratt (eds), *Research Handbook on Childhoodnature Springer International Handbooks of Education*. Springer International Handbooks of Education <http://dx.doi.org/10.1007/978-3-319-67286-1>

Shackell, A., Butler, N., Doyle, P., & Ball, D., (2008), *Design for Play: A Guide to Creating Successful Play Spaces*. Crown/Play England/Big Lottery Fund.

Schirrmacher, R. (2002), *Art and creative development for young children*. Albany, NY, US: Delmar Thomson Learning.

Schirrmacher, R. (1995), *Techni kai Dimiourgiki Anaptyxi ton Paidion* [Art and Creative Development of Children] (T. Gazerian transl, R. Kalouri, eds). Athens: Ellin.

Stacey, S. (2020), *Anadyomeno Programma kai Paidagogiki Tekmiriosi stin Proscholiki Ekpaidefsi. Apo ti Theoria stin Praxi* [Emergent curriculum and pedagogical documentation in early childhood education. From Theory to Practice] (K.Kafetzi transl, D.Evaggelatou eds). Athens: Gutenberg.

Stephenson, A., (2009). Horses in the sandpit: Photography, Prolonged Involvement and 'Stepping Back' as Strategies for Listening to Children's Voices. *Early Child Development and Care*, 179 (2), pp.131-141. <https://doi.org/10.1080/03004430802667047>

Sobel, D. (1993), *Children's Special Places: Exploring the Role of Forts, Dens and Bush Houses in Middle Childhood*. Tucson, AZ, US: Zephyr Press.

Tilley, C. (2001). Ethnography and Material Culture. In P.Atkinson (eds), *Handbook of Ethnography* (pp.258-271). London, United Kingdom: Sage.

Trikaliti, A. (2015). Aeiforo Elliniko Scholeio [Sustainable Greek School]. *Dialogoi! Theoria kai Praxi stis Epistimes tis Agogis kai Ekpaidefsis* [Dialogues! Theory and Practice in Education and Education Sciences], 1, 125-129.

Trikaliti, A. (2014). Aeiforo Elliniko Scholeio: Oloi Noiazomaste, Oloi Symmetechoume[Sustainable Greek School: We All Care, We All Participate]. *Perivallontiki Ekpaidefsi* [Environmental Education], 5(50).

Triliva, S. & Anagnostopoulou, T. (2008), *Viomatikí Mathisi. Enas Praktikos Odigos gia Ekpaideftikous kai Psychologous* [Experiential Learning. A Practical Guide for Teachers and Psychologists]. Athens: Topos.

Trimi, E. (2005). Techni kai Perivallon: Eikastikes Efarmoges se Mikra Paidia me ti Methodo tis «Eis Vathos» Prosengisis [Art and Environment: Artistic applications for young children using the "in-depth" approach]. In A.D.Georgopoulos (eds), *Perivallontiki Ekpaidefsi. O Neos Politismos pou Anadyetai* [Environmental Education. The New Culture Emerging] (pp.551-589). Athens, Gutenberg.

Tsiolis, G. (2014), *Methodoi kai Technikes Analysis stin Poiotiki Koinonikí Erevna* [Methods and Techniques of Analysis in Qualitative Social Research]. Athens: Kritiki SA.

Tsoukala, K. (2015). Antilipsi, Syllipsi kai Katalipsi tou Scholikou Chorou [Perception, Conception and Occupation of School Space]. In E.Gourgiotou & K.Ungrinis, *Architektonikes*

& *Ekpaideftikes Paremvaseis gia ti Dimiourgía Topon Mathisis sto Nipiagogeio* [Architectural & Educational Interventions for the Creation of Learning Places in Kindergarten]. Thessaloniki: Thessaloniki.

Tsoukala, K. (2014), *Roikes Chorografies* [Streaming Chorographies]. Athens: Epikentro.

Tsoukala, K. & Germanos, D. in collaboration with Gloumbou, A., Katsavounidou, G., Panteliadou, P., & Tombrou, P. (2020), *Paidiki Choriki Afigimatiotita* [Children's Spatial Narrative] (D. Asimakopoulou eds). Athens: Epikentro.

Tuan, Y. F. (1977). *Space and Place: The Perspective of Experience*. Minneapolis, MN, US: University of Minnesota Press.

Tzekaki, M. (2007), *Mikra Paidia Megala Mathimatika Noimata* [Young Children Big Math Meanings]. Athens: Gutenberg.

Ulmer, J. B. (2015). Embodied Writing: Choreographic Composition as Methodology. *Research in Dance Education*, 16 (1), pp.33-50. <http://dx.doi.org/10.1080/14647893.2014.971230>

Ungrinis, K.A., & Liapi, M. (2015). Ekpaidotopoi: Diatyponontas to Dynamiko Choriko Apotypoma tis Efcharistis Ekpaideftikis Diadikasias [Articulating the Dynamic Spatial Footprint of the Pleasant Educational Process]. Proceedings of the International Symposium, *Topoi gia Empeiries Máthisis. Erevna, Dimiourgia, Allagi* [Places for Learning Experiences. Research, Creation, Change] (D.Germanos & M.Liapi eds) (9-10 January, Thessaloniki, Greece) (pp. 120-137). Department of Early Childhood Education and Education Sciences, TEPAE, Aristotle University of Thessaloniki.

Vygotsky, L.S. (1933/1998). Infancy. In R.W.Rieber, A.S. Carton (eds), *The Collected Works of L.S. Vygotsky, Child Psychology*, 5. New York, US: Plenum Press.

Wallon, H. (1984), I Psychiki anaptyxi tou paidiou [The Mental Development of the Child] (M.Lomi transl). Athens: Glaros.

Winnicott, D. (1980), *To Paidi to Paichnidi kai i Pragmatikotita* [The Child, Play and Reality] (G.Kostopoulos transl). Athens: Kastaniotis.

Ward, C. (1978), *The Child in the City*. New York, US: Pantheon Books.

Washington, H. (2018). Education for Wonder. *Education Sciences*, 8(3), 125. <https://doi.org/10.3390/educsci8030125>

Xanthakou, G. (2011). *Dimiourgikotita kai Kainotomia sto Scholeio kai tin Koinonia* [Creativity and Innovation in School and Society] (G. Xanthakou, F. Monks, M. Kayla eds). Athens: Diadrasis.