

# Implications of the Land Art Training for Kindergarten Teacher Trainees on Their Interdisciplinary Teaching Practices

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Land art (or Earth art, or environmental art) refers to an art movement in which landscape and art are linked, and art work is not just placed in nature, but draws from nature. Land art can refer to several interpretations that can be done by anyone and may be combined materials found in nature, such as leaves, fir cones, twigs, pebbles, rocks, sand, and shells. Last years, land art was connected with education in implementation of interdisciplinary projects. The purpose of this study was to describe the effects of teaching a specific land art model to teacher trainees in Pedagogical Department of Preschool Education of University of Crete in 2011–2012. Through this project, the authors seek to promote a questioning and critical approach to art teaching, and environmental awareness within the context of early childhood education developing a validated inventory of instructional procedures, techniques, and assessments methods that may be used by the profession as a framework for curriculum development and the assessment of program effectiveness. The program, which is still ongoing, began in October 2011 with completion expected in mid-May 2012. Teacher trainees, an advisory teacher, an art education instructor, and a lecturer (as supervisor) worked together to involve young children in interesting and creative land art activities. This cooperation provided an opportunity for innovation and experimentation and, especially, a context for teacher trainees to deepen their understanding of their roles for a sustainable society and improve their teaching strategies. Project evaluation was made through children's land art representations and interviews conducted by all stakeholders (teacher trainees, children, teachers, etc.).

*Keywords:* education for sustainable development, kindergarten teacher trainees, land art training, interdisciplinary teaching practices

## Introduction

The “Contribution of Early Childhood Education to a Sustainable Society” (Didonet, 2008; UNESCO, 2008) explains how to educate young children with the aim of preventing further degradation of the planet and contributing to a sustainable society where values of human rights, peace, and justice are upheld. The publication argues that as early childhood education is about laying a sound intellectual, psychological, emotional, social, and physical foundation, it has an enormous potential in fostering values, attitudes, and skills that support sustainable development. There is a great deal in the traditions of early childhood pedagogies that

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align with education for sustainability, for example, interdisciplinary approach, use of the outdoors for learning, and learning through real life projects.

On the other hand, art is a vehicle to promote global communication and understanding and helps the educator to better explain all about cultural and environmental matters (Kastner & Wallis, 1998). It is a kind of art that not only cares about nature and environment, but also cares about environmental awareness of the people (Stathopoulou, 1997; Krug, 1997; Mantere, 1992). Environmental artworks are special projects where artists, scientists, teachers, and students work together. The results are environmental art pieces created by the spirit of “ecology and sustainable development” (Andrews, 2006; Grande, 1994). The most important thing in environmental art is that these actions have, at the same time, at the same place, an artistic and ecologic meaning. So, environmental art belongs both in art education and environmental education (Stathopoulou, 1997).

The Greek education system has recently introduced a redesigned curriculum the cross-curricular framework (DEPPS), which focuses on the “holistic” development of pupils through promoting learning in capacities such as confident individuals, successful learners, effective contributors, responsible citizens, etc. (Ministry of Education and Religion, Pedagogical Institute, 2003). One of the key ideas underpinning the DEPPS initiative is the idea of “inter-disciplinarity” and the views of knowledge that differing disciplines bring to a particular issue, topic, or learning context. But while theoretical arguments for interdisciplinary implementation are strong, such approaches are problematic for both schools and teacher education. Pedagogical departments of universities show limited attention towards ESD (education for sustainable development) and many of them treat sustainable issues as academic subjects (Brinkman & Scott, 1994) policy that cannot lead to a holistic investigation of environmental issues (Zachariou & Valanides, 2006). So, the future teachers are not motivated and committed to act in the direction of new pedagogical approaches and very often can be seen into the classrooms they use traditional practices to teaching about it.

Within this framework the purpose of this study was to describe the effects of teaching a specific land art model to teacher trainees in Department of Preschool Education of University of Crete in 2011–2012. Through this project, the authors seek to promote a questioning and critical approach to art teaching, and environmental awareness within the context of early childhood education (M. M. H. Cheng, A. Y. N. Cheng, & Tang, 2010), developing a validated inventory of instructional procedures, techniques, and assessments methods that may be used by the profession as a framework for curriculum development and the assessment of program effectiveness.

## **Methodology**

### **Participants**

This study was attempted to incorporate 70 teacher trainees, enrolled in the 4th year of their study in Pedagogical Department of Preschool Education, University of Crete, 17 kindergarten classes, 25 cooperating kindergarten classroom teachers, one kindergarten mentor teacher, an art education instructor-mentor, the university supervisor, and 805 children aged 4–6 years old in an participatory action research (Hart, 1997) project.

### **Teacher Trainees’ Training Model**

The first phase of training constituted the introductory stage where the teacher trainees introduced by the

supervisor to the inter-disciplinary approach and the project methodology. During this phase, teacher trainees, the advisory teacher, and the supervisor discussed the sequential development of the program. Teacher trainees were devised into 17 working team groups (one group for each class).

During the second phase, an art instructor introduced the teacher trainees in land artwork. The presentation included three categories of artworks that they praise the sublime of nature and landscape: (1) the “artificial landscapes”, huge sculptures in the countryside where they will be transformed according to the weather, the climate, and the time passing by; (2) the “parks and gardens”, big areas designed for enjoy the people; and (3) the “made by natural materials”, special art pieces made from leaves, stones, rocks, snow, sand, etc. (Di Marko de Testa & Budovski de Specchia, 2001).

The third phase included the teaching intervention which is still ongoing. During this period, the teacher trainees were encouraged to teach the follow topics: “Trees are our life, Talos into the cave of Melidoni, Prokni and Philomila (the birds of love), Quiet!!! The nature awakens, Turtles’ protection, on the road safely”. Before each teaching, teacher trainees participated in workshops, animated by the supervisor and the advisory teacher, which focused to link the teaching topic with the spirit of sustainability and the land art.

A focus group interview was conducted with the teacher trainees to gather their views on the land art approach and possible contribution to enhancing this approach in their interdisciplinary teaching practices about sustainable education.

### **Results and Discussion**

Teacher trainees’ reports indicated that they had not opportunities to study environmental issues before this program, and the art courses in university were not related to environment education. Teacher trainees also mentioned that the training program helped them to improve their knowledge for environmental issues and correctly conceptualize the systemic and holistic character of environmental issues (Adams & Chisholm, 1999). The program activities helped teacher trainees to realise that environmental issues are not only those connected with the natural dimension of the environment, but also those that have social, political, and economic implications as well. Teacher trainees also clarified the holistic and systemic character of sustainable development. Some teacher trainees stated that the program of land art offered the participants the opportunity to connect global issues to local reality (Adams & Chisholm, 1999; Zachariou & Valanides, 2006).

Through the program, teacher trainees seemed to have acquired an increased sense of personal responsibility, not only as humans, but also as professionals. Several teacher trainees stated that their involvement in the program increased their sense of personal responsibility, and they felt ready not only to inform the wider community (parents and citizens) about the environmental degradation, but also to act at a personal level towards the preservation of the environment and the improvement of the quality of life in their communities (Zachariou & Valanides, 2006).

Several teacher trainees described that the program of land art empowered them as professionals to undertake action and work for sustainability (Gabriel, 1996). The program helped teacher trainees realise the importance of their role as future teachers. Teacher trainees’ reports also stated that the training program promoted their active involvement in designing and implementing appropriate teaching procedures. Several teacher trainees mentioned that the program offered them the opportunity to be actively involved in planning relevant activities, and their statements indicated that the program enhanced their teaching and pedagogical approaches for effectively handling sustainable issues as future teachers (Zachariou & Valanides, 2006).

It seems that the training program provided opportunities for improving teacher trainees' self-efficacy and competence to be involved in land art activities. They mentioned in their reports that the program functioned as an experiential tool that guided them how to better organize their teaching, to set objectives and accomplish them using various outdoor activities and educational approaches. Teacher trainees' reports indicated that their participation in the program was an amazing experience that fostered their willingness and motivation to be involved in similar activities in the future.

Teacher trainees also stated that their participation in the program helped them to combine theory and practice, while they designed and implemented pedagogical methods that could easily be used in indoor learning activities. The quality of teacher education programmes can be improved only if the teacher educators help student and teacher trainees identify the gap between teaching and theory, and continually facilitate them in connecting their learnt theory and practice (M. M. H. Cheng et al., 2010; Eyers, 2004).

It was highlighted that the enhanced scope of land art model promoted a "sense of adventure", "openness to new ways of learning", and "willingness to take risks" and helped them to design and apply innovative pedagogical activities targeting critical thinking, participation, outdoor learning, recreative, interactive, active, and experiential learning (Zachariou & Valanides, 2006).

All the steps of the training program were based on teamwork and encouraged the cooperation between university teacher trainees and their mentor, amongst university teacher trainees, and among university teacher trainees and young children. The results indicated that the net of collaborations that were developed amongst the participants was a crucial factor for improving teacher trainees' teaching abilities and strategies (Gabriel, 1996).

Land art readily facilitated the understanding of subject content through interdisciplinary learning and helped teacher trainees to realise that every curriculum subject can contribute to a holistic inquiry of sustainable issues.

By multi-professional collaboration between all the participants in the community of learners, we are able to create knowledge and experiences that helped them to change their educational realities by changing practice and their lived realities (Nevanen, Juvonen, & Ruismäki, 2012).

### **Conclusion and Recommendations**

The results of this study showed that land art is an essential instructional tool in training teacher trainees to teach environment education and should be part of the daily instructional methods used in all teacher training programs. Universities play a crucial role by preparing future teachers to understand that art can support sustainable development in theoretical, practical, and instructional level, adapting effective practices in daily instruction (Darling-Hammond & Bransford, 2005). So, it is important for initial teachers' education program to include courses that connect art and environment as has been the artistic movements of the 20th century land art, trash art, recycle art, etc.. Further research that examines land art education practices in Greek schools is recommended.

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