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VICTORIA PAVLOU
Frederick University, Cyprus

Investigating interrelations in visual arts education: Aesthetic enquiry, possibility thinking and creativity

ABSTRACT
Visual arts education can be an important and powerful field of learning for children. This article explores interrelations between the study of artworks and the development of creativity in children’s thinking and art-making. Starting from the premise that engagement with artworks does not automatically release children’s imaginative capacities, the article discusses how an aesthetic mode of enquiry can support children’s artviewing and enable the development of possibility thinking; the ability to make connections, to think differently and envisage new possibilities. Aesthetic enquiry can enable children to actively engage in taking their ideas further, exploring options and employing critical reflection. Providing children with opportunities to materialize their ideas after viewing an artwork, set the prerequisites for innovative solutions and the development of creativity. These interrelations between artviewing and art-making are argued theoretically and explored empirically through a small scale exploratory study with 7–8 year olds.

KEYWORDS
aesthetic enquiry possibility thinking creativity studying artworks elementary education
Περίληψη
Η εικαστική παιδεία είναι δυνατόν να αποτελέσει σημαντικό και δυναμικό πεδίο μάθησης για τα παιδιά. Το παρόν άρθρο διερευνά συσχετισμούς ανάμεσα στη μελέτη έργων τέχνης και την ανάπτυξη της δημιουργικής σκέψης και της δημιουργικής εικαστικής παραγωγής των παιδιών. Ξεκινώντας από τη θέση ότι η ενασχόληση παιδιών με έργα τέχνης δεν απελευθερώνει αυτόματα τις δυνατότητες φαντασίας, το άρθρο συζητά πώς ένας αισθητικός τρόπος διερεύνησης είναι δυνατόν να υποστηρίξει τη θέαση έργων τέχνης από παιδιά και να διευκολύνει την ανάπτυξη της εν δυνάμει σκέψης της ικανότητας να κάνουν συσχετισμούς, να στοχάζουν διαφορετικά και να μπορούν να εξετάζουν νέες δυνατότητες. Η αισθητική διερεύνηση μπορεί να βοηθήσει τα παιδιά να συμμετέχουν ενεργά στην περαιτέρω εξέλιξη των ιδεών τους, στη διερεύνηση επιλογών και στην υιοθέτηση του κριτικού αναστοχασμού. Η παροχή ευκαιριών στα παιδιά να πραγματοποιήσουν τις ιδέες τους μετά τη θέαση έργου τέχνης, θέτει τις προϋποθέσεις για καινοτόμες λύσεις και για ανάπτυξη της δημιουργικότητας. Οι συσχετισμοί ανάμεσα στη θέαση και στην παραγωγή τέχνης συζητούνται θεωρητικά και διερευνούνται πρακτικά μέσω μιας μικρής κλίμακας πιλοτικής έρευνας με παιδιά ηλικίας 7-8 χρονών.

INTRODUCTION

Education has an important role to play not just in stimulating creativity but in offering meaningful learning that develops creativity. To ensure development of creativity, we need to identify attributes that characterize creativity. It has been asserted that creativity in education involves posing questions, making connections, being imaginative, exploring options and engaging in critical reflection evaluation (Cremin et al. 2006). Taking into consideration these attributes, it is clear that creative development encompasses visual arts. For example, when an artist is asked to make art, he or she is involved in a range of decision-making, problem-solving, information-gathering, experimental and evaluative activities (Mace and Ward 2002). Similarly, creative learning can take place in art classrooms when children are engaged in aspects of intellectual enquiry that require them to be innovative, experimental and inventive (Jeffrey 2005). But, what happens when a person is asked to view art? How can artviewing1 activities promote creativity? And, why viewing artworks is important for developing creativity?

M. Greene (1995) is very helpful here. She argues that having children create art is not sufficient to foster imagination in educational settings. In fact, children may be deprived if they are not encouraged to look at works of art and to read art. Further, she notes:

It is my conviction that informed engagements with the several arts is the most likely mode of releasing our students’ […] imaginative capacity and giving it play. However, this will not, cannot happen automatically or ‘naturally’. Without spending reflective time, without tutoring in or exposure to or dialogue about the arts, people merely seek out the right labels, seek out the works by the artists they have heard they should see. (Greene 1995: 125)

This article aims to highlight and to make explicit interrelations between ways of encouraging creative learning in art education through artviewing activities.
These interrelations are initially argued theoretically and then are explored empirically, through a small-scale exploratory research study. E. Moga et al. (2000) note that while there is the common view that studying the arts makes people more creative and imaginative, this in fact has not been extensively supported by empirical data. When referring to ‘studying the arts’ more often it is assumed that one refers to making-art activities and not to artviewing activities. However, the focus of this article is on artviewing activities and in particular on artviewing activities that are based on an aesthetic mode of enquiry. In contemporary societies, which are increasingly characterized as visual societies, artviewing activities are progressively gaining wider recognition (even with non-art specialist educators) for their central role and position in visual arts education. The way artviewing activities may support the development of creativity within the context of elementary education is the central point of this article.

**CREATIVITY**

There has been a new recognition of the key role of creativity in education for some time. This has been demonstrated with several initiatives, one of which was the European Year of Creativity and Innovation in 2009. The main reason for this recognition was the realization of the key role of creativity for economic prosperity and competitiveness, as well as for social and individual well-being. Thus the European Year of Creativity and Innovation in 2009, as well as other initiatives, promoted several actions at national and European level (Sharp and Le Metais 2000) that aimed at stimulating education and research, and promoting education policy that would encourage the development of creativity in schools.

Seizing to take advantage of this renewed attention, art educators re-emphasized the important role of creativity and how it can be nurtured through the visual arts. C. Smilan and K. Marzilli Miraglia underline the need for developing creativity in all children because ‘without creative thinkers, society and culture may suffer, leaving a dangerous gap… between those who lead and those who blindly follow the status quo’ (2009: 40). Of course the important role of creativity in art education has been recognized many decades ago, during the 1960s and 1970s. However, after this period the strong support for creativity in art education seemed to disappear only to reappear during the past few years (Zimmerman 2010). At the beginning of the twenty-first century there were limited academic papers on creativity and its links with art education. For example, E. Zimmerman (2010), in a content analysis of papers presented at the NAEA annual convention and published in Studies in Art Education during the years 2007–2009, noted that only a small number of them focused on creativity. Moreover, associations between art education and creativity were implied but were not explicated or theorized.

Creativity in the present study is situated within the social psychological framework that acknowledges the central role of social structures in fostering individual creativity (Ryhammar and Brolin 1999; Craft 2002; Jeffrey 2005; Mace and Ward 2002). In the education setting, this recognition refers to the way educational programmes are organized in a way that can influence the stimulation or suppression of creativity; for example, even minor – but important – aspects of the immediate social environment (e.g. classroom climate) may affect creativity. Further, the notion of creativity adopted in this article relates to the ordinary or ‘democratic’ creativity (a
term that first appeared in the NACCCE 1999) as opposed to the notion of high, extraordinary creativity. The notion of high creativity refers to creativity as ‘the achievement of something remarkable and new, something which transforms and changes a field of endeavor in a significant way … the kind of things that people do that change the world’ (Feldman et al. 1994: 1). The notion of ordinary or ‘democratic’ creativity or the ‘little c creativity’ (Craft 2002) takes as a fundamental assumption that creativity is something that all children can do. Creativity in this study is defined as ‘[…] being imaginative, going beyond the obvious, being aware of one’s unconventionality, being original in some ways’ (Craft 2002: 3). At the core of creative activity lies imaginativeness, or what A. Craft (2002) calls, ‘possibility thinking’ and this implies that creativity should not necessarily be linked with a product outcome.

In order to explore creativity of ordinary people/children within aspects of education (social structures) and to identify associations that are not always evident in the product outcome, one needs to move away from large-scale studies (which traditionally aimed to measure creativity) towards qualitative research focusing on the actual site of operations and practice (Burnard et al. 2006). Qualitative research can take into consideration interactions with the environment and highlight dynamic, interactive aspects of creativity (Mace and Ward 2002).

**THE INTERRELATIONS BETWEEN ARTVIEWING, POSSIBILITY THINKING AND CREATIVITY**

Teaching for creativity through viewing artworks is not something that unfolds naturally. The way teachers frame learning activities, is extremely important for enabling children to engage meaningfully with artworks. One way to achieve this is to adopt an aesthetic mode of enquiry when viewing artworks. Many researchers and art educators/theorists have defined aesthetic enquiry and each describes the construct in a slightly different way according to the context that it is used. For example, some relate it with a specific perspective of conducting research in education (e.g. Alexander 2003), others with exploring broad questions about art (e.g. Lampert 2006; Lankford 1990) and others with adopting specific ways of exploring artworks (e.g. Holzer 2009). The Lincoln Centre Institute in New York City has developed and refined, over a 25-year period, a programme dedicated to aesthetic education, during which aesthetic enquiry plays a central role for supporting children’s interactions with artworks (Holzer 2009). This mode of aesthetic enquiry is adopted in this article as it allows children to be involved with processes of understanding and interpreting artworks (having a discussion around an artwork as it frequently happens when we ask adults to respond to an artwork), but also with processes of creating art, of responding to the artwork in a form of art. This enquiry process, labelled as aesthetic enquiry, has a very particular meaning that differentiates it from enquiry typically undertaken in other sciences. It includes cognitive (problem-solving and imagination) and affective (emotions) processes and it largely depends on the development of the following capacities: noticing deeply, embodying, questioning, making connections, identifying patterns, exhibiting empathy, creating meaning, taking action and reflecting/assessing (Holzer 2009). Encounters with the arts based on the adoption of an aesthetic mode of enquiry allow for the development of imagination of children, since children are encouraged to make questions, to embody and to
associate. Imagination, as Greene (1995) argues, is seen as necessary in order to create a sense of empathy for others in the world, as well as to create a sense of possibility in their lives and the lives of others. When imagination is used with intention, in order to find a way around a problem, then possibility thinking is encouraged (Craft 2002; Jeffrey and Craft 2003). Possibility thinking is where aesthetic enquiry and creativity intersect. Possibility thinking is construed as being at the core of ‘little c creativity’ (Burnard et al. 2006). It exists both in the generative process itself and in the outcomes/activities. It is characterized by the capacities to pose questions, to play, to immerse, to make connections, to be innovative, to take risks, to be imaginative and to exhibit self-determination (Craft 2002).

In order to explore empirically interrelations between aesthetic enquiry, possibility thinking and creativity, a pilot case study with 7–8-year-old children was carried out. The main research questions of study were the following:

1. How can artviewing which is supported by the aesthetic enquiry process cultivate a) possibility thinking and b) creativity in young children? And, in particular, can children embrace and practice the skills for creative learning through studying works of art?
2. How can children’s possibility thinking and creativity skills in art be tracked/document? How can we document evidence for creative learning in art?

**METHODOLOGY**

**Participants**

One class of second graders, nine boys and six girls (7–8 year olds), of a primary school in Nicosia, Cyprus, participated in the project. The children had weekly art lessons that involved art-making activities (their teacher noted that they never engaged in a discussion/dialogue about artworks before the study took place).

**Method followed**

During this exploratory/pilot case study, a qualitative approach was followed. This involved participant observation by the author who applied a series of art lessons around the theme ‘Trees’. During the implementation of the study the author kept a diary documenting children’s involvement with art materials as well as informal discussions with the children. The talks/discussions that evolved around artviewing were also audiotaped and children’s artworks were photographed to have a visual documentation of their explorations, efforts and achievement. More specifically, children’s representations of trees were documented at the beginning of the study and at the end of the study. This was done following the logic of a pre-test/post-test design that can help researchers/educators identify changes and provide substantial evidence of a programme/intervention study’s impact. Because of the particularities of visual arts education, the pre-test/post-test approach was not text based but picture based. By having a picture-based form of assessment (which did not resemble a test form of assessment) it was also ensured that the children would not feel anxiety/pressure to perform ‘better’ and skew the results.

3. Every school year in Cyprus there is a dedicated week for the theme ‘trees’ and several activities take place under this. Frequently these activities are interdisciplinary (science and environmental studies, arts education, language, etc) and run more than one week (quite often for one month).
Procedure

The study was organized by the author, who worked collaboratively with the teacher of the selected class in planning the lessons and in engaging directly with the children. It ran through a series of ten lessons of approximately one hour each for ten consecutive weeks during the period January–April 2011. The activities were not fully planned in advance but they emerged from children’s expressed interest; they were framed by the researcher but they were built upon the continued experiences of the children in the process of constructing their knowledge following a content-centre/child-initiated approach (Pavlou 2004). The first step involved the documentation of children’s potentials in representing trees at the beginning of the study. The second step involved children’s engagement with the artwork *The Tree of Life* by Gustav Klimt (1909). The children were introduced through informal group discussions (three groups of five) to the study of ‘The tree of life’. The third step mainly involved art-making activities. That is, artviewing was complemented with activities that involved taking action and creating personal artworks with a variety of art materials.

Findings

Starting point: Noting down children’s knowledge about trees and experiences with depicting trees

Initially, the children were asked to discuss what they knew about trees and to draw a tree. All children contributed to the discussion, indicating their familiarity with the theme chosen. They talked about the importance of trees for people and for animals: ‘they give us oxygen’, ‘they give us fruits’, ‘they give us paper’, ‘they are the house of birds’, etc. Then, they were asked to draw a tree. All of them choose pastels out of the variety of drawing materials available to them. All children drew a brown trunk and green foliage and few also drew fruits. Two shapes were mostly used for the foliage, as shown in Figure 1.

Artviewing: Talking about an artwork

Using a question–answer approach (Barrett 2004; Hubard 2011) and having in mind ways of encouraging the aesthetic enquiry (as described by Holzer 2009), the researcher (author) initially encouraged children to carefully observe the artwork *The Tree of Life* (1909) by Klimt (see Figure 2) and describe what they were seeing. No information was given about the artwork or the artist. Instead, the children were encouraged through questioning to explore the artwork by themselves, something that involved examining carefully, telling what they observed, listening to other’s observations, commenting and also asking. Children’s comments were short and frequently entailed similes. Their comments focused on the branches (‘Wow! There are so many branches!’), ‘they go like circles’, ‘they are like snails’, ‘It’s very big! It doesn’t end. Yes, look here (points at the edges of the artwork), the branches go on’, ‘It’s different. It has many branches, like a snail’, ‘Big!! What a big tree! Lot’s of branches’), on what they thought the different shapes on the tree were (‘there are like houses on the tree’, ‘I can see dwarfs’, ‘Wow, it’s a tree full with eyes’) and on the bird (‘What’s this? Is it a bud? … No, it’s a bird’, ‘Oh, look, here’s an owl’). Some also asked questions, such as ‘but why it is so big?’ and ‘why are the branches like that?’.

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4. The artwork was chosen based on P. Yenawine’s (2003) recommendations of how to choose artworks for inexperienced viewers (young children) and mainly it was chosen based on the criteria of accessibility (to include recognizable objects and figures), captivation (artworks that are relevant to their interests and experiences) and expressive content (artworks that are open to a number of different possible interpretations).

5. Here it needs to be clarified that there are two well-known versions of this artwork, one that focuses on the tree (Figure 2) and one that also depicts human figures. The first group of children was initially shown the larger version (the one that also depicts human figures). However, after realizing that there was an issue with accessibility because the children did not easily recognize the human figures on the right side of the artwork, the smaller version of the artwork (Figure 2) was shown. The art talk that took place focused on this one. Subsequently, it was decided that the other two groups of children would be shown only the smaller version of the artwork.
After describing what they were seeing, the children were asked to look even deeper and describe how the different parts of the artwork were depicted; the lines, shapes and colours that they were seeing. They easily named the shapes as the majority looked like geometrical ones and noticed that some shapes contained others. As for the lines, they focused mainly on the lines of the branches, that is, on the spiral lines, which they called ‘snailish’ lines. They also ‘depicted’ the different shapes and lines that they found interesting with their figures on the air. Some children used pencil and scrap paper to show which lines and shapes they found interesting. As for the colours, the

Figure 1: Children’s drawings of trees (pre-test).
children named all the different colours and were introduced to the colour ‘ochre’ because only one child knew this term/name.

Next, the children were asked to interpret the artwork; they were encouraged to speculate, to ask questions, to hypothesize and to uncover meaning. To begin the interpretation process, the children were asked to close their eyes and take a magic trip into the artwork. Then they were asked to talk about what they saw, heard or said during their trip. Some children climbed up the tree, which was, for most of them, an exciting experience. Few were scared. Here are some of their comments:

Oops! I scratched myself.
I was scared … a bit. Because I climbed up high on the tree. It’s very tall!
I wasn’t (scared). I climbed to the top and I was fine!
I felt wearied … I like it … I felt joy.
I don’t hear anything. It’s quite. It’s nice. You can climb up the branches like a monkey.
It’s a tree that you can play with. It has toys.
It has fruits but you can play … and climb … It’s the carnival of the trees!

Figure 2: The Tree of Life (Gustav Klimt, 1909).
Other children focused on the bird, wondered about its existence there, and tried to create their own stories and make meaningful connections that could interpret the artwork. Again, for some children, this was a pleasant experience whereas for others this was not.

I climbed here, here and then here … And the bird talked to me. It told me to go and find three things and solve a mystery!!

I was scared. The bird scared me. It yelled at me loudly and it attacked me. Why? Because somebody tried to cut the tree down … and the bird is going to chase him.

Few children talked in general and did not elaborate, e.g., ‘it’s peaceful’, ‘it’s beautiful’ and ‘I felt nice’. One child focused on the branches, which reminded her of a maelstrom, and said that she felt dizzy.

**Taking action: Producing pictures**

When artviewing was completed, the children were asked to depict a tree again, as an aesthetic enquiry process also involves the development of the capacities to take action and reflect. Children were told that they could take as many ideas as they would like from the artwork *The Tree of Life*. The children were given large pieces of paper and the freedom to realize the idea that they chose (there was no predetermined outcome). They were also given the same choice of materials as during the pre-test. Some children worked with pastels.

![Figure 3: Artworks made by pastels and paints.](image)
and paints, and other with drawing and scrap materials. Despite the materials used, all children depicted trees with trunks and branches. None of the children depicted foliage.

Figures 3 and 4 include four examples of artworks made with pastels and paints. In their pictures the children depicted the trunk of their tree and lots of branches. The branches are depicted with a variety of lines and shapes. Shapes can also be found on the branches and inside the trunks. The first picture in Figure 3 has a tree with four trunks. In the second picture in Figure 4 there are a small house and toys on the tree’s branches and a sun on its trunk.

Figure 5 depicts trees with personalities; they have human faces and show feelings. The first two are angry trees as the children who drew them noted that ‘some people are cutting down trees and the trees are very angry’. The third picture depicts a happy tree, a tree that is peaceful and nice; it has a heart-shaped head.

Figure 6 includes pictures made with drawing materials and scrap materials. Again, the children used a variety of shapes and lines, such as
triangles, orthogonal shapes, ‘snailish’(spiral) lines, which they connected with an innovative way to depict their trees. They used mainly colours for the different shapes depicted in their trees and cut different shapes from scrap material and glued them on the background (all children were concerned – to some extent – with the background as they thought that it was important in order to consider their picture complete).

Taking action: Making three-dimensional artworks

After the completion of the pictures it was initially planned to proceed with another theme and the study of another artwork. However, as it was mentioned in the methodology section, the activities were largely formed by the children’s needs and interests. During their picture-making the children talked about the limited opportunities they had for creating things/objects (three-dimensional artworks). They showed the researcher the only three-dimensional artwork that they had produced so far were trees (e.g. in Figure 7). The teacher had given them roundish pieces of cupboard and rolls of cardboard to decorate with different colours of sugar paper.

At that point it was decided to offer the opportunity to children to create three-dimensional artworks. It was further assumed that dealing with the same idea for a longer period of time would create a sense of depth in their art-making. A short discussion around the Klimt’s artwork proceeded, as a reminder of things that had already been discussed in previous lessons. Initially, the children were introduced to the idea of making drafts with pipe cleaners before making their ‘final’ artworks, which would have a permanent
Surprisingly, it was realized that the children had not used pipe cleaners before, and therefore more time was given for manipulation and familiarity with the material. Children were excited to use new materials and worked furiously.

Figure 7: Children’s three-dimensional representations of trees.

outcome. Pipe cleaners were used because of their resemblance to lines; flexible ‘three-dimensional’ lines in many colours. Examples of children’s artworks are shown in Figure 8. Every child made his or her own tree with its trunk and branches using pipe cleaners with different colours and shaping them into different kinds of lines.

Then, the children were given the opportunity to produce sculptures of trees with rolls of newspaper, polyester boards, plaster gauge and tape. A discussion followed the presentations of the materials (qualities and expressive possibilities) about their possible uses. Rolls of newspaper were chosen

Figure 8: Maquettes of trees.
due to their resemblance to pipe cleaners; long, roundish, thin material. Plaster gauge was chosen in order to give a permanent look to their artwork. This was a new material for children.

Again, children worked furiously until they thought their work was finished. They experienced some problems with shaping the rolls of newspaper in their desired position, but appeared to be quite persistent and tried to adjust the materials to their ideas. Some, though, were flexible and adjusted their ideas to the qualities of the available materials. They also discussed issues connected with uprightness and balance, and how they would position their works on the polyester board. Afterward, they were given the opportunity to reflect on their artworks. They particularly enjoyed dipping pieces of plaster gauge into water and applying them on their work. They were also surprised by the final product; how much solid the surface was. Some children wanted to make their sculptures more lively and beautiful and asked for paints. At the end all children painted their trees (see Figure 9).

**DISCUSSION**

When the data were analysed, it was realized that it was hard to decide whether a certain action/activity, at any given time, was promoting solely one of the three main constructs under investigation (aesthetic enquiry, possibility thinking and creativity). This was so because although these constructs are distinct from each other, they are interrelated; they share some common features as they involved common cognitive and emotional processes (see Figure 10). In the discussion that follows, we explore how the development of the one
construct sets the development of the other in motion. Additionally, we present evidence that make the connections between them explicit.

Starting from the premise that engagement with artworks will not automatically release children’s imaginative capacities (Greene 1995), a discussion with the children about an artwork took place following the aesthetic enquiry mode, which involved the active engagement of the children. The empirical data demonstrated that within this framework viewing artworks enabled children to embrace and practice the capacities of noticing deeply, embodying, questioning, creating meaning and taking action. In particular, the children were able to describe in detail what the artwork contained, to make connections, and to wonder. Further, they tried to construct interpretations based on the artwork and their own experiences, e.g., they ‘climbed’ using their imagination on the tree and ‘scratched’ themselves, they ‘talked’ to the bird and the bird ‘talked’ to them, they ‘played’ on and ‘with’ the tree, etc. It is in these instances that the mind and the body of the children were connected, blurring the boundaries between the senses, allowing the children to embody the artwork, to use their senses and feelings in order to understand the qualities of what was perceived in the artwork. Children were immersed in the artwork, an activity that involved the body in the process of meaning-making (Springgay 2005).

Being able to embody the artwork before being asked to make art enabled them to envisage new possibilities, new ways of being creative in their thinking and in their representations. Possibility thinking was evident in their oral responses/constructions of interpretations of the artworks, which were imaginative and involved risk taking. Children ‘immersed’ in the picture and talked about their experience, something that exposed them to others. Possibility thinking was also evident in their self-determination of how to represent trees after viewing how an artist had represented a tree. Children did not try to imitate/copy the artwork seen, but they were challenged to think differently and to explore how ideas found in the artwork

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**Figure 10:** Investigating interrelations: artviewing, aesthetic enquiry, possibility thinking and creativity.
could be used in their artworks. Mimicking was not a concern because art-making focused on children’s expression of interpretative ideas based on the viewing of an artist’s work. Further, the children who participated had never viewed artworks before (at least during that school year) and consequently did not have preconceived ideas of what they should do with an artwork (e.g. try to copy it). The artist’s work became a reference for children’s art-making, indicating that this was an opportunity to expand their art understanding (Walker 1996). Therefore, in their artworks there was evidence of elements that children had taken from Klimt’s work and gave them play in their representations. For example, some children played with the way different lines and shapes could be used in their artworks. Others played with the colours that they could use. Moreover, some children played with the stories they expressed during their interpretations and in their artworks the trees became alive, they were ‘anthrop trees’, expressing different states of emotions.

Through art-making the children became actively engaged in taking their ideas further, exploring options and looking at different possibilities. Some children also expressed awareness of their unconventionality in their pictures (e.g. this was done by the child who drew a tree with four trunks). Thus their artworks should not simply be considered as a response to the artwork seen but as something much more than that; an expansion of their art understanding.

Creativity was clearly more evident – to an independent observer – in the children’s pictures as opposed to their three-dimensional constructions, due to the larger amount of differences noted among them. However, it is hard to judge that because of the relative conformity noted among their three-dimensional constructions, children were not being creative. For example, during making their three-dimensional constructions (maquettes and sculptures) children exhibited great immersion in what they were doing, took risks and tried to explore possibilities that were suggested by the materials (pipe cleaners, plaster gauge), which were new materials to them.

Further, having children make three-dimensional artworks raises the issue discussed by S. Walker (1996) of how closely the art-making activities should resemble the artist’s choice in materials and/or art forms if the artist’s work is to be a reference for their art-making. Is the purpose here to invite children to transfer knowledge from the artist’s context to their own? If so, how can we avoid the danger of restricting too many parameters and thus unconsciously encouraging children to simply mimic the artwork and not being truly creative in their artworks? Children’s constructions (Figures 8 and 9) after their engagement with Klimt’s work were much more innovative than their constructions before the beginning of the study (Figure 7), and there were also some evidence of play with different lines and shapes that can be identified in Klimt’s work, and investment on expressing their own subjects.

Moreover, the findings raise the issue of recording and assessing creativity and the difficulty of identifying criteria in the context of school children. M. Fryer’s (1996) study suggests that a child’s work should be judged against his or her past performance, to what might be deemed original for a particular pupil. It appears that much less stringent criteria are required and self-assessment should be encouraged when looking at works of young children. What is novel for the individual child as meaning-maker is important (Fryer 1996; Craft 2002), rather than what is for the teacher.
CONCLUSION

To sum up, this study demonstrates that aesthetic enquiry, possibility thinking and creativity are interconnected entities/constructs. Through art talk, children can engage with understanding art and become truly creative in their art-making. Children’s artworks demonstrate visually the relationship between developing possibility thinking and creativity through artviewing. However, creativity is not developed naturally/automatically through artviewing. Teachers need to provide the appropriate environment; they need to be prepared but also willing to take risks (Lankford 1990), to encourage children to construct their own interpretations (Hubard 2011), to be open to possibility, to be willing to pass control to children (Burnard et al. 2006), and to be aware of individuality. Passing control to children is essential in actively engaging the children in their learning. The active involvement of children in being innovative and experimental in their intellectual enquiries is important in giving space for creative learning to take place (Jeffrey 2005; Cremin et al. 2006).

Overall, the exploratory case study presented is an example that highlights what the study of artworks has to offer to the learning–teaching situations and in particular on how to develop creativity. Evidence for creative learning in art was provided by documenting both children’s artworks and art talks. Although the case study presented involved a rather small group of children with no (or limited) previous experience with artworks, it is thought to be important as it facilitates depth of analysis and understanding of a complex learning–teaching situation. Whereas the findings are not generalizable, they can help teachers reflect on and enhance their practice. Aspects of the pedagogical framework include the belief that art can be interpreted on direct, personal connections, which set the preconditions for encouraging a particular kind of enquiry, an aesthetic mode of enquiry, which consequently encourages the development of possibility thinking. When talking about art is combined with creating art, then possibility thinking is given a visual form; children are enabled to transform their ideas into an art form.

An important aspect that needs to be further researched is whether generalist teachers (who in many countries – including Cyprus – are responsible for art lessons) are able to provide children with learning opportunities that encourage the development of an aesthetic mode of enquiry and consequently of possibility thinking and creativity. Current research with pre-service teachers (Pavlou forthcoming) has shown that when undergraduate modules acknowledge student-teachers’ limited experiences with artworks and target the development of their pedagogical content knowing in teaching art with artworks, student-teachers are enabled to offer meaningful artviewing activities, which adopt an aesthetic mode of enquiry. However, it appears that there is a lack of similar studies with in-service teachers.

The findings also point to issues that need further exploration, such as how to appropriately document some features of the aesthetic enquiry and possibility thinking and, in particular, risk taking and immersion in young learners’ engagement and actions. Or, how to describe progression in possibility thinking and in creativity; that is, distinct from normal to innovative as what might be normal activity in one class/setting might not be normal for another. For example, a future research may adopt the proposed framework for a whole school year with one class of children and compare the results with a control group of children. As P. Burnard et al. (2006) note, through
examining possibility thinking in action, researchers and practitioners can begin to capture some of the complexities and interplays between learning and pedagogy for creativity. Capitalizing on these insights and examining the issues arising is the next challenge.

REFERENCES


**SUGGESTED CITATION**


**CONTRIBUTOR DETAILS**

Victoria Pavlou is an assistant professor of visual arts education in Frederick University, Cyprus. Her research interests focus primarily in the area of visual arts in primary education: initial teacher education and continuing teacher professional development (profiling teaching styles, teachers’ attitudes and knowledge, developing pedagogical content knowledge, etc.), pupils’ learning preferences, motivation and creative potentials, and integrating information and communication technologies in learning and teaching (multiliteracies and multimodality, open and close software, online interactive activities, video art, etc.). Her teaching interests focus on visual arts education, museum education, educational evaluation and new technologies in primary education.

E-mail: v.pavlou@frederick.ac.cy

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