Teaching Philosophy through Paintings: A Museum Workshop

Savvas Ioannou, Kypros Georgiou & Ourania Maria Ventista

ABSTRACT: *There is wide research about the Philosophy for/with Children program. However, there is not any known attempt to investigate how a philosophical discussion can be implemented through a museum workshop. The present research aims to discuss aesthetic and epistemological issues with primary school children through a temporary art exhibition in a museum in Cyprus. Certainly, paintings have been used successfully to connect philosophical topics with the experiences of the children. We suggest, though, that this is not as innovative as the conduction of a dialogue in a museum. Results were mostly positive. Pupils participated in the discussion and they gave intensive definitions of beautiful paintings and counterexamples for given definitions. The structure of inductive arguments and the difference between belief and knowledge were discussed. Progress in the analysis of inductive arguments was slightly noticeable, but it is likely that this was due to limited time spent on analysing those arguments. Furthermore, more sessions are needed to make generalisations for the effectiveness of the Philosophy for Children program in a museum instead of a traditional classroom. Even though there is discussion about the different stimuli of the discussion, it might be worth considering the effectiveness of different contexts where the discussion can take place.*

Keywords Philosophy for Children – Museum Workshop – Paintings – Aesthetics - Epistemology

Introduction

Philosophy for Children was developed in the USA in the late 1960's by Matthew Lipman and it is currently being taught in approximately 60 countries (SAPERE, 2015). Primary school philosophy is about "providing children with the opportunity to explore fundamental aspects of their experiences which are already meaningful to them, in order to become more sensitive to their philosophical dimensions (ethical, logical, metaphysical, epistemological)" (Ventista & Paparoussi, 2016, p. 613). This paper aims to present a Philosophy for Children intervention in a different context than usual. It presents how P4C can be implemented in a museum as a workshop. This paper presents a museum workshop focusing on aesthetics and epistemology. This paper will suggest a new way of teaching P4C combined with museum education. Even though this paper does not make any causal claims about the effectiveness of teaching P4C in a museum, it does set a new context for further investigation.

The aim of this research was to investigate whether fifth-grade primary school children can engage in a philosophical dialogue concerning aesthetic and epistemological issues and be critical of their and other's opinions. This research also aimed to experiment with a new way of

implementing a philosophical dialogue; that is, philosophizing through a workshop in an art museum. Another aim was to develop the verbal reasoning of children about philosophical issues.

At the beginning, topics of aesthetics and epistemology related to the workshop will be presented and approaches for teaching philosophy in primary school will be described. Then, this paper will briefly explain the exhibition and the paintings used as stimuli for the philosophical discussion. The material created will be presented and the ways that Year 5 students acted on them will be reported.

Theoretical Background

Aesthetics and Epistemology

Aesthetics and epistemology are two sub-fields of philosophy. The description of them in this paper and the workshop about them were based on the tradition of analytic philosophy. A philosophical inquiry into art refers to the "philosophical discourse about conceptual questions raised by experiences with aesthetic objects (metal-level)" (Russell, 1991, p.95). For Hagaman (1988, p.19), aesthetics is a branch of philosophy that analyses;

> [T]he basic concepts and language people use in thinking and talking about art: beauty, expression, representation, symbolism, and the like. Additionally, they investigate questions in which these concepts are embedded: What is the function or purpose of art? Do criteria exist for distinguishing a good work of art from a poor one? [...] What is the relationship between an artist's intent and a viewer's response? [...] And of course there is the big one: What is (or isn't) art, anyway?

Aesthetic questions are close to children's experience. For example, they discuss whether certain art works are beautiful or not. They argue that something is beautiful based on certain criteria. Their teachers explicitly and implicitly judge some artworks of theirs and others as beautiful.

Concerning epistemology, for Steup (2016, para.1)

> [D]efined narrowly, epistemology is the study of knowledge and justified belief. As the study of knowledge, epistemology is concerned with the following questions: What are the necessary and sufficient conditions of knowledge? What are its sources? What is its structure, and what are its limits? As the study of justified belief, epistemology aims to answer questions such as: How we are to understand the concept of justification? What makes justified beliefs justified?

According to Audi (2011), epistemology investigates particular sources of knowledge and justification: perception, introspection, memory, a priori intuition (reason in one sense of the term), testimony, and inference. We know and are justified to believe several things because of

those sources. A belief is justified, if it is grounded in those sources which give justification for beliefs.

The art exhibition provided a suitable environment to discuss specific issues about those sources. One of them is visual perception (e.g., seeing a bird) which is a type of perception. Usually, seeing an object entails that this object really exists. People may assume that beliefs about the external world are justified because we perceive it to be so. However, the world is not always as it looks like. It may seem to us that we see something, but we are mistaken about it. There are cases that it seems to us that an object is perceived, but it's not really there (hallucinations). Another case is seeing a hologram of a cup of coffee that is indistinguishable from a real one and mistake it for a real cup of coffee.

According to Audi (2011, p.185-193), inductive inference is one type of inference. When we reason inductively, the premises of a strong inductive argument provide good grounds for believing its conclusion, i.e., there is a high probability that the conclusion is true, if the premises of the argument are true. The premises are based on beliefs we have. Still, even the likeliest conclusion may be false. Inductive reasoning is probabilistic reasoning and a form of probabilistic knowledge. An inductive argument can be inductively strong or inductively weak. It's inductively strong, if its conclusion is highly probable. It's inductively weak, if its conclusion is not very probable. Justification and knowledge is transmitted in inductive inference only if the underlying argument is inductively strong.

Teaching epistemological issues in primary school students is not usually the focus of educational research. A literature review didn't find any research about teaching epistemological issues in an art museum. We believe this is possible and the following workshop was a way to test it. Children already argue about several issues in their daily life. They argue for and against views, and consider the views of classmates and adults. Engagement with epistemological issues could help them to recognise the relevance of issues concerning justification and knowledge, when they formulate beliefs. Recognizing the difference between belief and knowledge could help them analyse better their and others' opinions. The discussion with their classmates could help them to contemplate whether their beliefs are justified or not. The particular art exhibition provided a great opportunity to initiate a discussion with children about the aforementioned epistemological issues.

Approaches for Teaching Philosophy in Primary School

There are different approaches for teaching philosophy with young children. Different researchers debate about the material which could stimulate the discussion and the activities that could be included. In this article, the context of the discussion is also questioned. The dialogue should not necessarily take place in a classroom. For example, Vansieleghem (2011) implemented a Philosophy for Children session in Cambodia through a walk. Later, this research will suggest the implementation of the sessions in a museum.

Concerning the different stimuli, Glasser (1992) argues that any material could be used to initiate a philosophical inquiry or extend a theme of the IAPC (Institute for the Advancement of Philosophy for Children) materials. Those could be poetry, songs, and stories. Additional resources could also be used to explore themes that are not mentioned in the IAPC materials (e.g., environmental issues). Glasser (1992) recommended that plays, films, games, chance events in the classrooms, and the subject matter of any discipline could also be used to create a philosophical inquiry. What is more, paintings and children's drawings had been also used by teachers to discuss a philosophical issue (Jespersen, 1993). Furthermore, the curriculum for ethical education in primary schools in Germany also recommended the use of paintings to philosophize with children (Brüning, 2008).

Various methods for discussing philosophical issues were suggested. Venable (2001) suggested role play as a strategy for teaching and learning aesthetics. Role play can be inspired by current events, scandalous or unusual artwork, activities of artists, galleries, and museums. Moreover, Russell (1991) mentioned that "puzzle cases" can be utilized to confront aesthetic questions. For Brüning (2008), another method of philosophizing with children is thought experiments with ideas. This method aims to develop the philosophical imagination of children. It asks us to imagine what we would do or what the world would be like under certain imaginary situations.

According to Hagaman (1988), discussing a painting can be used as an initiation for talking about global and abstract ideas of aesthetics. The underlying meanings of a specific work of art can be discussed and then, discussion about the meanings of all works of art can be started.

Liptai (2005) maintained that while purpose-written philosophical texts are used just for initiating the philosophical inquiry and don't have intrinsic, aesthetic qualities, works of art have a different kind of physical reality and unavoidable aesthetic qualities. A work of art appeals to the eyes in a different way than a text. It helps pupils who are visual or kinaesthetic learners to focus on the stimulus. Children with short attention span and fidgety limbs can also be helped because questioning starts sooner. Children are magnetized by a work of art, and hence, they are forced to revisit it a lot of times and gain new and deeper layers of meaning. Works of art can be remembered by the children, influence their aesthetic choices, and function as reference points, as resources, and as thinking repertoire. A good stimulus for initiating a philosophical enquiry can be a work of art that is problematical and controversial, and thus, it motivates children to reconceptualize the categories of aesthetics and taste (e.g., beauty and ugliness) and leads them to construct (new) criteria. An aesthetic inquiry uses the aesthetic object for more than just a trigger for discussion.

We suggest that topics in aesthetics and epistemology can be discussed with primary school students through an art museum workshop. Paintings can be used to initiate philosophical discussions that are suitable for their age and relevant with their experience.

The context is crucial for the philosophical discussion. Brüning (1987) emphasized the importance of presenting the philosophical problem in a context that enables children to discuss it. Instead of beginning with posing a complex and abstract question, it's better to analyse a concrete situation as a starting point. A visit to a museum could be more beneficial than discussing paintings in or outside of the classroom. In the classroom, the pupils wouldn't have the space to do the activities that are possible in the museum. In and outside of the classroom, the pupils aren't close to the real paintings. The proximity to the paintings could help the children to notice details of the painting that they wouldn't notice otherwise. A philosophical discussion can arise by discussing those details.

Murris (2000) argued that both children and adults should analyse our concepts by focusing on how the words that denote our concepts are used in everyday circumstances. Analysing concepts out of the context of their use generates problems and doesn't help at all. A concept doesn't have an absolute, universal meaning outside the particular context in which it is used.

Russell (1991) suggested some procedures that are steps for learning principles of concept analysis. First, case delineation elucidates a concept by examining different cases of its use. Second, concept comparison elucidates a concept by contrasting it to similar concepts. Third, definition elucidates a concept by formulating and/or assessing a definition of the concept. While formulating and assessing a definition, it should be confirmed whether the definition is not circular and covers all and only the cases of the concept. Counterexamples can be used to show that a definition is not satisfactory. Case delineation can lead to a definition.

Benefits of Museum Education

Research revealed that it's beneficial for children to visit museums and participate in programmes there. To begin with, pupils that participated in museum multi-visits generated more instances of critical-thinking skills and used various critical thinking categories compared to pupils who didn't participate in this programme (Adams et al., 2007; Burchenal & Grohe, 2007). Second, a multi-visit program in an art museum created positive attitudes in children toward art museums and art in general, and compared to a control group, participators of this program were able to express better their appreciation and love for works of art and articulated better their responses toward art (Falk, 1999). Furthermore, in museums, shy and unconfident children "became more open and assertive, able to hold their own in conversations, and able to explain what they had done and why" (Hooper-Greenhill, 2004, p.437). Moreover, children with learning difficulties were more confident and focused in museums compared to classrooms (Hooper-Greenhill, 2004).

Jeffery-Clay (1998) noticed that a museum is an ideal environment that allows pupils to move and explore freely and work at their own pace. This environment encourages group interaction and sharing. The personal experience with real objects can make them curious and encourage them to investigate and compare the objects with their own lives and experiences. This can lead

children to question their knowledge structures, and hence, adding to or rebuilding those structures.

Methodology

Aim of the Workshop

The workshop aimed to help the children to formulate and assess intensive definitions that mention necessary and sufficient conditions for the use of a concept. For Russel (1988), a "perfect" intensive definition *"(1) "*is not circular," *(2)* "describes all of the things it is supposed to define," and *(3)* "describes only the things it is supposed to define." The latter two principles refer to necessary and sufficient conditions, respectively" (p.284). An intensive definition is a summary statement of what is common and unique to the instances of a concept. Philosophical inquiry is concerned with formulating intensive definitions. In contrast, an extensive definition is a mere list of examples or attributes that explain the concept.

In the workshop, we aimed to improve the philosophical skills of the students in the following philosophical issues:

- Assessing and formulating definitions of beautiful paintings.
- The distinction between "believing something" and "knowing something". How beliefs are formulated through perception? The workshop focused on general conditions that must be fulfilled in order to have perception that gives us beliefs that constitute knowledge. Focus was on two types of perception: vision and hearing.
- The structure of inductive arguments. What premises must be true to give us justification for our conclusions? How can the conclusion of an inductively strong argument be proven wrong? What are some examples?

The exhibition

The Loukia & Michael Zampelas Art Museum hosted the solo exhibition of Cypriot woman artist Kyriaki Phili, entitled *speculum mundi*, from the end of April to the end of May of 2017. The exhibition displayed works which are visual references to historic paintings as well as works with stills taken from film. Her two main visual references are the paintings of Johannes Vermeer and Luchino Visconti's film, *Death in Venice.* She used pencil, oil, sand as materials to make her paintings. Further, the exhibition included a video. Kyriaki Phili attempted to generate a new reading for selected artworks by Vermeer by modifying particular symbols of the historic paintings. Consequently, a new narrative and inevitably a new meaning emerges. Photos of the main paintings that were examined by the children can be found in the appendix.

A fifth-grade primary school class attended the workshop. The class consisted of 12 students. The primary school of the students is close to the centre of Nicosia, the capital city in Cyprus. The sample selection is not random and the school was selected because of the proximity to the

museum. It was assumed that the workshop was suitable for children from 9-12 years old. Therefore, the fifth-grade was considered an appropriate selection.

Implementation of the Workshop

The workshop lasted for two hours. Two of the authors of this paper, who are qualified teachers, implemented the workshop. The workshop included several kinds of activities: discussion, performing plays, and drawings. A variety of activities is needed as different students can contribute to the philosophical inquiry in different ways. According to Hagaman (1990), while discussing with children, some pupils can be models for the rest because they have better verbal skills and are confident to share their thoughts. Other pupils can be models in other activities, such as performing plays on a theme or an idea which is related to the dialogue. A variety of activities can be used to develop a community of inquiry into philosophical issues. This inquiry could be impossible for a pupil studying individually.

Following Gregory's (2007) suggestion, the role of facilitators was to (a) model and request good dialogue moves and (b) to help the children recognize in which stage of the dialogue they are and how the dialogue progresses. During the dialogue, the facilitators were intervening to detect assumptions that were not recognized by the children, suggest important different views that were not mentioned by the children, and help children to move from one stage of the dialogue to the next.

It was the first time that pupils engaged with issues of aesthetics and epistemology. For this reason, we thought it suitable to focus on encouraging pupils to give counter-examples for given definitions, and then, propose improved definitions that don't have the above mentioned counter-examples. Weekly philosophical sessions could examine the aforementioned and related issues in more depth.

A visit to the museum can be considered an example which facilitates experiential learning. The students can act differently when they are in the museum. Even though they interact with their classmates, they do not adhere strictly to the rules of the classroom and they do not strictly belong to a classroom community. They can focus on their own feelings when they see the authentic paintings and they can be inspired. In the museum, the students had the opportunity to see the authentic paintings and they were also asked to paint their own drawings.

An evaluation sheet (see appendix) was developed and administered as a pre-test and post-test to all the children, who participated to the workshop. The tests were used to identify the children's understanding and verbal reasoning about the aforementioned issues. More precisely, they were used to discover whether the workshop helped the children to understand the aforementioned aesthetic and epistemological issues, give intensive definitions about them, and evaluate definitions by noticing unnecessary and insufficient conditions and giving counter-examples. The pre-test was used to recognize the views and philosophical skills of the children prior to the implementation of

the workshop. The pupils faced difficulties on giving definitions and completing the exercises related to inductive arguments. Therefore, the workshop proceeded by emphasizing improvement on those areas. Almost all the pupils gave counter-examples for the given definitions. The post-test was used to uncover whether there was any change on the views and skills of the pupils and help them with any difficulty they still face. The facilitators were checking the answers of the pupils and helping them to fill the sheet by reminding them what they did so far or trying new ways to help them. During both tests, the pupils needed the most guidance in the exercises related to inductive arguments.

The evaluation sheet was testing whether pupils could implement specific philosophical skills. In 1 (a) and 1 (b), the pupils should have given a counter-example for each definition. In 1 (c), the pupils should have stated an intensive definition. In 2 (a), the pupils should have recognized that we don't know and explained why. In 2 (b), the pupils should have described one or more circumstances. In 2 (c), the pupils should have given a counter-example for the definition. In 2 (d), the pupils should have stated an intensive definition. In 3 (a), the pupils should have recognized which inductive argument is better and explained why. In 3 (b), the pupil should have written one premise that makes the conclusion of the inductive argument more likely to be true. In 3 (c), the pupils should have described one situation that if it really happens, the conclusion of the inductive argument is false. In 3 (d), the pupils should have mentioned what is similar in the aforementioned inductive arguments (if the premises are true, the conclusion is likely to be true, but it is not certainly true).

After giving time to students to complete the pre-test, the evaluation sheets were collected and the activities sheet (see appendix) was given to them. Each activity had a different aim. In activity 1, the aim was for the children to formulate and assess definitions of "beautiful paintings". Pondering what it is to be beautiful could help pupils to analyse paintings thoroughly and hence, appreciate their complexity. While the mimic game was happening, the kids that did the mimic were asked to tell us why they thought this specific painting was beautiful. The mimic game was used to help the children to recognise characteristics of the paintings. The children were going close to the paintings and were describing what exactly they found beautiful and why. Other pupils were encouraged to go close to the painting and mention reasons that they agree and disagree with the other children. Being close to the real paintings help the student to spot details of the paintings that could be missed in the classroom. After the mimic game was over, the teachers summarized what characteristics the children found beautiful in the paintings. The teachers asked whether all the paintings that are beautiful have any of these characteristics and whether only the paintings that are beautiful have any of these characteristics. After a brief discussion, pupils were asked to find other paintings that have the characteristics that they like and decide whether those paintings are beautiful or not. They were expected to argue for or against their initial views. Their classmates were asked if they agree or not and why. After discussion, those characteristics were found inadequate for defining the beautiful paintings, and the children were asked to propose other characteristics. During the discussion, the children were encouraged to criticize the views of their classmates. E.g., "Does this definition cover all the beautiful paintings?". "Does this

definition cover only the beautiful paintings?" Children were comfortable in their own opinions, as evidenced by the fact that no consensus was formed.

In activity 2, the aim was for the children to recognize the distinction between "believe" and "know" and discuss which conditions must be fulfilled so my belief can constitute knowledge. Contemplating the distinction between belief and knowledge could lead pupils to be more critical about their views and consider how certain they should be about them. One of the teachers drew three times the woman who wears a hat in the painting. Each time, he drew her hat and clothes with different colours. The three triplet nieces were named differently, and the children were asked to guess based on the portraits which sister stole the diamond ring. Then, they were asked to tell us why they chose the specific sister. The goal of the activity was for the pupils to formulate hypotheses about which woman is the murderer and recognise that their views were only assumptions and that they cannot be certain about them. They were also asked to tell us whether they only believe the specific sister was the thief or whether they also know that it was her. The pupils were led to contemplate how certain they were about their views and what could make them doubt their beliefs. Whenever a child said that he/she knew, the teachers mentioned good reasons given from other students for believing that another woman was the thief. They were asked to describe what exactly doesn't make them sure about their belief in this scenario. It was recognised that in this scenario, the mist prevents us from being sure about our beliefs. Then, the kids were encouraged to mention other cases in which we believe something, but we cannot be sure and know that it's true. "Under what conditions are we not sure about the truth of our beliefs?". The distinction between belief and knowledge was discussed. Sometimes we believe that something is true, but we don't know it is true because the conditions of the environment or our physical condition hinder us from doing so. Ideal conditions for our beliefs to constitute knowledge were mentioned by the children. The teachers summarized those ideal conditions, and asked whether our beliefs constitute knowledge whenever those conditions are fulfilled. The discussion was continued with more counter-examples and discussion between the children. During the discussion and at the end of it, the teachers were stating all the conditions that

Image 1 – "Girl during a music lesson"

the children mentioned in the form of the following definition: "we believe something and know it is true, if ....".

In activity 3, the students were required to analyse the structure of inductive arguments and produce examples of them. Children use inductive arguments in their daily lives without recognising it. If they do recognise it, they will probably be more critical about their views and think about how sure they should be about them. After the children completed the exercises, it was noticed by the teachers that all the children have drawn a woman as the owner of the items. The children were asked to explain why they chose to draw a woman. The children mentioned that the earring belongs to a woman. The structure of the children's arguments was made clearer by the facilitators. They were asked what alternative situations can be true. Given answers were that a man bought the earring for a present to his wife and that it's not even an earring but an olive instead. This led the children to recognise that the available evidence could be used to support another conclusion. Two more paintings were discussed with the students. Those paintings depicted the half part of a male and female human body respectively (Image 1 and Image 2). The children were asked to guess what is the other half missing. Most of the answers were that the man wears pants and the woman wears a skirt. The children were asked to justify their answer and tell different alternatives that can be true. Some children justified their answers by mentioning what they observed so far (men wearing pants, women wearing skirts). Memory was described as a source of justification. Then, the teachers told the children that what they have done so far in this activity is similar to what we do in our life every day. We come to some conclusions about the world around us by using some beliefs we have about it. "But, how certain are we for the truth of the conclusions?" Through the discussion, the children realized that the conclusions are highly probable, but we cannot be certain of their truth. What we observed and observe give us some reasons for believing the truth of the conclusions, but we still cannot exclude alternative situations to be true. Then, the children were asked to give examples of other similar arguments, but few of them participated.

Image 2 – "Adzio"

Results and Discussion

We spotted some positive differences, when we compare the pre-test and post-test of each pupil. In 1 (a) and 1 (b), 2 and 4 pupils respectively gave more or different counter-examples for the given definitions of beautiful paintings. In 2 (a), in the pre-test, 3 pupils said that they don't know that he is their friend because of the mist, and in the post-test, they gave a more detailed explanation of why they don't know. In 3 (b), 4 pupils gave a different premise that makes the conclusion more likely to be true. In 3 (c), 2 pupils gave different explanations of what Sotiris thought wrongly. While there were some positive effects, it seems that more sessions are needed to notice big improvement in the philosophical skills of pupils. The 2-hour session had some impact on the answers of the children, but more time is needed to develop more skills.

Another difference was that some pupils became more sceptical after the workshop. In the pre-test, 2 pupils gave definitions of beautiful paintings and 3 pupils gave definitions of knowing something exists that we believe we saw. However, they didn't give any definition in the post-test. This may have happened because the workshop helped the students to be critical about their views and reduce their certainty for what is the definition of some concepts. The pupils were experimenting with different definitions during the workshop, but they may have not wanted to commit to one specific definition during the post-test. It is possible that later, they will ponder about those philosophical issues longer because of this uncertainty. On the other hand, this change may have happened because we confused the children during the workshop. However, their willingness to participate with insightful comments during the activities make this hypothesis unlikely to be true. It seems that time is needed to encourage students to write down their views, even if they are not certain about them.

It seems that topics in aesthetics and epistemology can be discussed with primary school students. Children found the activities interesting and comprehensible. They participated in all of them, even though, altogether, they lasted for two hours. The pupils were enthusiastic to share their views, argued for them, and changed them when they heard a counter-example. Still, this was the first time that the children participated in a philosophical dialogue, and hence, the teachers needed to intervene often to progress the dialogue. Activity 3 needed the most intervention from the teachers. This shows that more time is needed to make clear the structure of inductive arguments and help pupils to give examples of this type of argument.

The visit in the museum was a suitable stimulus for initiating a philosophical discussion. The paintings were easily used to relate the philosophical issues with the experiences of the children. Moreover, the paintings were excellent stimuli to maintain focus on the topics. There were not as many distractions as in the classroom. The environment had mostly stimuli related to the topic of the workshop. Therefore, the discussion didn't have any digression. This is in agreement with Hooper-Greenhill (2004) who supported that pupils participate more often and are more confident and focused in a museum. Furthermore, children engaged the philosophical topics through playful activities that would be impossible to be implemented in a classroom. They found

those activities interesting, and as a result, they participated lively in the discussion. This engagement of the students in the discussions and the story-based activities are likely to promote the retention of the museum experience by the students later in time and establish learning. More specifically, according to Anderson et al. (2002), children usually recall and describe museum experiences that were embedded in the medium of story. This is not surprising as engagement with stories is a common and enjoyable part of a child's everyday culture. This finding reveals "the importance of tapping into the familiar socio-cultural aspects of children's everyday experience to mediate learning" (Anderson et al., 2002, p.223).

This workshop was a first step for improving the verbal reasoning of pupils. For Russel (1988), verbal reasoning refers "to the use of words to articulate thinking that is logically sound and based on examples that support or do not support a position on the conceptual issue in question" (p. 282). Reasoning is an important part of philosophical inquiry. Cam (2016) mentioned the basic operations of reasoning: logical justification and inference. He suggested that pupils can carry out these operations, even if the terms "justification" and "inference" are not used. 'Giving a reason' can be used to introduce logical justification, and 'draw a conclusion' can be used to introduce inference. Logical "justification is the giving of reasons in support of a suggestion" (p.8). The term 'because' can be used when the pupils carry out a logical justification. According to Brüning (1987), giving and examining reasons for opinions and beliefs is a feature of philosophical thinking. It should be examined whether the reasons for believing something are good or not. People have a good reason for believing something when a warrant can serve as a reason for having this reason. For Cam (2016), inference happens when "we reason in order to draw conclusions or to infer one thing from another" (p.9). The term 'therefore' can be used when the pupils carry out an inference.

Of course, one session is not enough to notice significant improvement in the verbal reasoning of pupils. Time is needed to make pupils accustomed to give reasons for their views and evaluate critically their reasons and that of others (Fair et al. (2015). However, the lively participation of pupils gives us a reason to examine more thoroughly the effects of teaching philosophy this way.

Limitations and Future Directions

There were some limitations on this research. First, the workshop was implemented with only 12 students, and hence, the results cannot be generalized. Second, there was only one session, and thus, we couldn't go into depth in the aforementioned philosophical topics and test whether significant improvement can be identified.

Future sessions could examine the aforementioned issues in more detail and talk about relevant topics. We assumed that some paintings are beautiful and some are not, but is this true? Are there objective criteria that can distinguish beautiful paintings from poor ones? What is the difference between being justified in believing something and knowing something? What is the

difference between being justified and truly believing something and knowing something? What are some problems of the inductive arguments?

Creating a randomised controlled trial to examine the effectiveness of conducting philosophy in museums compared to the normal classrooms is recommended. The environment as an intervention could play a significant role, particularly in an intervention like philosophy where the thinking should be stimulated appropriately and it does not necessarily require a typical environment with students sitting at their desks.

Conclusions

The implementation of the workshop had positive results. Primary school children can discuss topics of aesthetics and epistemology and found them interesting. Analysing paintings seems to be a good way to raise questions and discussion about belief, knowledge, and perception. More research is needed to analyse the peculiarities of this area of philosophy. For example, are some educational materials more effective than others to initiate an epistemological discussion? Are some epistemological topics too complex to be comprehended by children?

There was a lot of participation in the philosophical topics discussed. A variety of definitions of beautiful paintings and counter-examples were given. Students were trying to distinguish between belief and knowledge and analyse the structure of inductive arguments. Doing the philosophical discussion in the art museum was helpful. The children could focus in the discussion by paying attention to the paintings. It's quite probable that the children were focusing more time on the paintings than they would if they were seeing a photo of them. They were observing the paintings from different distances because they wanted to see every detail of the paintings, and hence, they had more stimulus for participating in the discussion. The paintings also helped them to connect the philosophical topics with their experiences. Moreover, the playful activities attracted the attention of the children. They participated in the discussion because they wanted to solve the mysteries. Walking around the museum and going closer and further away from the paintings helped the children to get into the mood of exploration. It would be impossible to implement those activities in a classroom because of the lack of paintings and space. From this experience, we conclude the benefits and drawbacks of discussing philosophical issues in a museum should be the topic of further research.

References

Adams, M., Foutz, S., Luke, J., & Stein, J. (2007). Thinking through art: Isabella Stewart
          Gardner museum school partnership program year 3 research results. *Annapolis: Institute
          for Learning Innnovation.*
          https://www.gardnermuseum.org/sites/default/files/uploads/files/Year_3_Report.pdf . Accessed
          November, 3, 2017.

Anderson, D., Piscitelli, B., Weier, K., Everett, M., & Tayler, C. (2002). Children's museum
          experiences: Identifying powerful mediators of learning. *Curator: The Museum Journal*, *45*(3),
          213-231.

Audi, R. (2011). *Epistemology: A Contemporary Introduction to the Theory of Knowledge* (3rd ed.).
          New York, NY: Routledge.

Brüning, B. (1987). What is a Philosophical Discussion with Young Children? *Analytic
          Teaching, 8*(1), 87-92.

Brüning, B. (2008). Philosophizing with Children at Universities and Schools in Germany.
          Thinking: The Journal of Philosophy for Children, 18(4), 2-5.

Burchenal, M., & Grohe, M. (2007). Thinking through art: Transforming museum
          curriculum. *Journal of Museum Education*, *32*(2), 111-122.

Cam, P. (2016). Basic operations in reasoning and conceptual exploration. *Journal of Philosophy
          in Schools, 3*(2), 7-18.

Fair, F., Haas, L. E., Gardosik, C., Johnson, D. D., Price, D. P., & Leipnik, O. (2015). Socrates in
          the schools from Scotland to Texas: Replicating a study on the effects of a Philosophy
          for Children program. *Journal of Philosophy in Schools, 2*(1), 18-37.

Falk, J. H. (1999). Museums as institutions for personal learning. *Daedalus*, *128*(3), 259-275.

Glasser, J. (1992). What's So Special About This Story Anyway? *Analytic Teaching, 12*(2), 45-52.

Gregory, M. R. (2007). A framework for facilitating classroom dialogue. *Teaching Philosophy,
          30*(1), 59-84.

Hagaman, S. (1988). Philosophical aesthetics in the art class: A look toward implementation.
          Art Education, 41(3), 18-22.

Hagaman, S. (1990). The Community of Inquiry: An Approach to Collaborative Learning.
          Studies in Art Education, 31(3), 149-157.

Hooper- Greenhill, E. (2004). Learning from Culture: The Importance of the Museums and
          Galleries Education Program (Phase I) in England. *Curator: The Museum Journal*, *47*(4), 428-
          449.

Jeffery-Clay, K. R. (1998). Constructivism in museums: How museums create meaningful
          Learning environments. *Journal of Museum Education*, *23*(1), 3-7.

Jespersen, P. (1993). Problems with Philosophy for Children. *Analytic Teaching, 14*(1), 69-71.

Liptai, S. (2005). What is the meaning of this cup and that dead shark? Philosophical inquiry
          with objects and works of art and craft. *Childhood & philosophy,* 1(2), 537-554.

Murris, K. (2000). Can children do philosophy?. *Journal of Philosophy of Education,* 34(2), 261-279.

Russell, R. L. (1991). Teaching students to inquire about art philosophically: procedures
          derived from ordinary-language philosophy to teach principles of concept analysis.

Studies in Art Education, 32(2), 94-104.

SAPERE(2015). What is P4C? Available at: http://www.sapere.org.uk/default.aspx?tabid=162 (access: 15 April 2017)

Steup, M. (Fall 2016 Edition). Epistemology. In E.N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy*.Retrieved from https://plato.stanford.edu/archives/fall2016/entries/epistemology/ .

Vansieleghem, N. (2011). Philosophy with children as an exercise in parrhesia: An account of a philosophical experiment with children in Cambodia. *Journal of Philosophy of Education, 45*(2), 321-337.

Venable, B. B. (2001). Using role play to teach and learn aesthetics. *Art Education, 54*(1), 47-55.

Ventista, O.M. & Paparoussi, M., (2016). How to introduce a philosophical discussion in your classroom: A community of enquiry in a Greek primary school. *Childhood & Philosophy*, 12(25),611-629. http://www.e-publicacoes.uerj.br/index.php/childhood/article/view/24994

Appendix
Evaluation Sheet (pre-test and post-test)

Did you know that philosophers wonder about different issues that concern us? Let's see some of them?

1.   (a)

Why are some paintings beautiful and some are not?

"A painting is beautiful, if it represents exactly the nature"

Do you agree with this definition? What do you think? A painting is beautiful only if it represents exactly the nature or can it be beautiful even without representing the nature?

_____
_____
_____
_____

(b)

"A painting is beautiful, if it has a lot of colors".

Do you agree with this definition? A painting is beautiful only if it has a lot of colors or can it be beautiful even without having a lot of colors?

_____
_____
_____
_____
_____

(c) Can you think of a better definition that reveals which paintings are beautiful?

_____
_____
_____
_____

2. (a)

> **When we discuss with other people, we tell them about many things that we believe and know. But what is the difference between "believe" and "know"? Imagine the following scenario:**
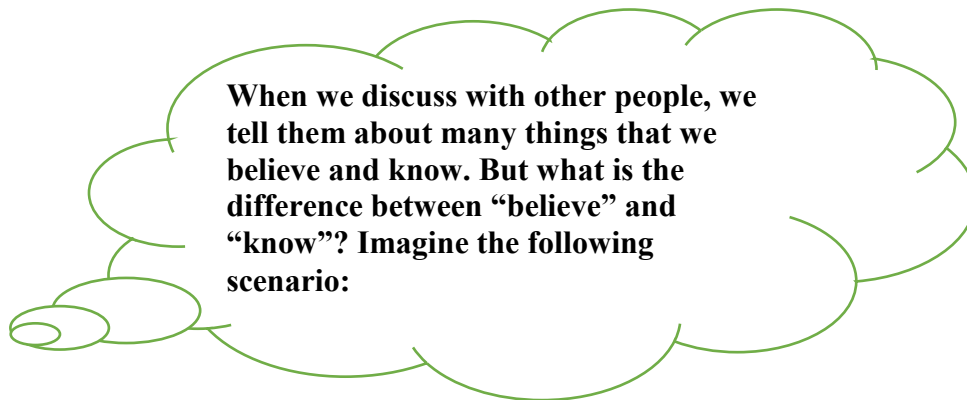
It is foggy. Someone is approaching, but we can't recognize his characteristics clearly. He looks like a friend of ours and we believe he is our friend. Can we say that we know that he is our friend? Yes? No? Why?

_____
_____
_____
_____
_____

(b) We have a lot of beliefs about what exists around us and in the rest of the world. Can you think of some circumstances that would stop us from creating precise views about the world around us?

_____
_____
_____
_____

(c) We <u>believe</u> that we see something. But do we <u>know</u> that it actually exists? A definition of whether we know that something exists that we believe we saw is the following:

> *"We believe we saw something and we know that it exists, if there was good visibility".*

Do you agree with this definition? Why?

_____
_____
_____
_____

(d) Can you think of a better definition?

_____
_____
_____
_____

3. (a) During our lives, we come to a lot of conclusions about many situations by giving arguments. George and Andreas heard someone shouting and came to different conclusions through the following arguments:

George:
I hear someone shouting, but I don't see him.
The voice is similar to Kostas' voice.
Conclusion: probably, then, Kostas is shouting.

Andreas:
I hear someone shouting, but I don't see him.
I don't see John.
Conclusion: probably, then, John is shouting.

Which conclusion is better and more persuasive? Why?

_____
_____
_____
_____
_____

(b) Look at the following argument:
The pencil of Maria has been broken.

_____
Conclusion: probably, then, Anna broke Maria's pencil.

What should we fill to make the conclusion more likely to be true?

(c) Sotiris came to a conclusion.

> **I listen to the sound of a musical instrument.**
> **This sound is similar with the sound of a guitar.**
> **Conclusion: probably, then, someone is playing guitar somewhere close.**

But the conclusion is false! Why is the conclusion of this argument wrong? What did Sotiris think wrongly?

_____
_____
_____
_____
_____

(d) How are the above arguments similar to each other?

_____
_____
_____
_____

Activities Sheet

Name: ……………………………………………………………………………………

Welcome to the Loukia & Michael Zampelas Art Museum.

Μουσείο Τεχνών
Λουκίας & Μιχαλάκη Ζαμπέλα
Loukia & Michael Zampelas
Art Museum

You are in the temporary exhibition Speculum Mundi.

1. **Look carefully at the works of Kyriaki Phili. Write in the following box the title of the art work that you think it is the more beautiful and tell us why.**

> **The more beautiful art work in this exhibition is the one with the title**
> ……………………………………………………………………………………..
> **It's the more beautiful because**
> …………………………………………………………………………………….
> …………………………………………………………………………………….
> ……………………………………………………………………………….……
> …………………….

A mimic game will start soon. Can you mimic the content of your favorite work to help the other kids to recognize it?

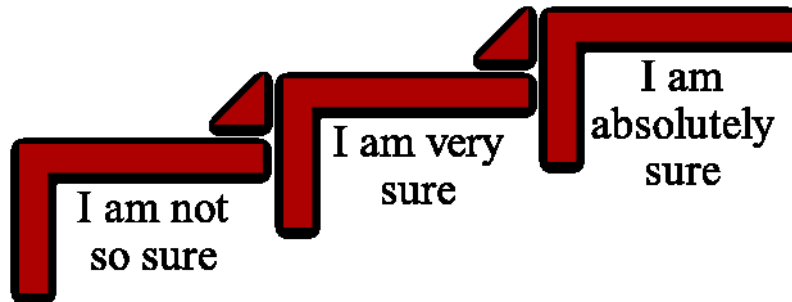2. Go and sit in front of the following art work. *"In Lido of Venice"*

Solve the mystery!

In a misty summer day, there was a robbery! Someone stole a diamond ring from the house of Mrs. Richy. The above photo was taken by the camera of Mrs. Richy's house. It looks like the thief was wearing a hat. The only people who were wearing a hat that day were the triplet nieces of Mrs. Richy. Let's meet them? Which of the three sisters can be this mysterious woman?

We have just met the triplet nieces. Write in the following box which of the 3 sisters you believe that she appears behind the mist in the painting.

> ....
> ...

How sure are you about your answer? Draw yourself to the step that represents your view.

I am not
so sure

I am very
sure

I am
absolutely
sure

Paint the figure by using the colors that represent the sister that stole the ring. Where would you draw her look?

3. **Look at the following art work. Find it and sit in front of it.**

"Locus I"

Draw in the following box the things that belong to someone.

Can you imagine their owner or owners? Draw him/her/them in the above art work and give him/her/them name/names.

> **I painted ………………………………………………………………………………..**

Address Correspondences to:

Savvas Ioannou, Doctoral Researcher
School of Philosophical, Anthropological and Film Studies
University of St Andrews
savvasioa@hotmail.com

Kypros Georgiou, Museum Educator
Loukia & Michael Zampelas Art Museum
kypros1991@hotmail.com

Ourania Maria Ventista, Doctoral Researcher and Teaching Assistant
School of Education
Durham University
o.m.ventista@durham.ac.uk