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Creative pedagogies: examining the pedagogies fostering possibility thinking in primary classrooms, using learning resources associated with museum visits

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ABSTRACT

The pedagogies of fostering possibility thinking (PT) have been investigated for over a decade in early year and primary settings. This paper reports the findings of a qualitative study that sought to identify the teachers' pedagogical practices that foster children's (aged 9–10) PT through alternative resources of learning such as museums in Cyprus. Eight primary teachers took part, and the findings were compared with the existing PT literature which offers an in-depth investigation of the pedagogical features nurturing PT (time, space, learner's agency, standing back and forward). The analysis also suggests a new pedagogy (narrative improvisation) that teachers started using after the museum visit. The study provides a starting point for further research on the aspirations of pedagogies fostering PT using alternative resources of learning such as museum spaces. This paper presents the key findings of the study through a figure and ends with suggestions for further research.

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Creativity; possibility thinking; pedagogies; museums; narrative improvisation; drama

1. Introduction: situating the focus of the study

Theories of pedagogies have been written about extensively over many decades, among these are Piaget (1926, 1975), Bruner (1960, 1966, 1971), Vygotsky (1962), Bloom (1956), and many others. Alexander (2004, 7) defines pedagogy as 'the act of teaching and its attendant discourse' which encompasses other views such as those of Watkins and Mortimore (1999, 3) who judge the term to mean, 'any conscious activity of one person designed to enhance learning in another'. Creative pedagogy describes the practices that enhance creative development through the three interrelated elements of creative teaching, teaching for creativity, and creative learning. Therefore, this paper uses the term 'pedagogies' rather than 'pedagogy' to acknowledge the plurality of the strategies used by the teachers' there is not a one-size-fits-all creative pedagogy.

Woods (2004) documented among the key strategies employed by the creative teachers the imaginative approaches, spontaneous reaction, making emotional connections, creating atmosphere, and role play. Additionally, earlier studies had identified four core characteristics of creative teaching: making learning relevant to students; enabling them to take ownership of learning experiences; the passing back of control; and the encouragement of innovatory action (Woods 1995). Jeffrey and Craft (2004) have documented numerous other characteristics of creative teaching strategies including flexible structures, encouraging the taking of roles, considering emotions, using humour, creating

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critical events, problematising, stimulating the imagination through narratives, encouraging play, developing team identities, and establishing a dynamic caring school ethos. Cremin and Chappell (2019) through their literature review (they draw on studies from 1990 to 2018), identified seven inter-related features that characterise creative pedagogies used. These are generating and exploring ideas; encouraging autonomy and agency; playfulness; problem solving; risk-taking; co-constructing and collaborating; and teacher creativity. The above studies opened paths for the empirical investigation of teachers' pedagogy for fostering creativity, an area towards which this study has been addressed.

1.1. Empirical work on possibility thinking

It has been argued (Craft 2000, 2001, 2007) that at the heart of creativity is Possibility Thinking (PT), which drives creativity in different ways in different domains. The notion of PT (Craft 2000, 2001) is considered as 'thinking in novel and valuable ways about the world' (Craft 2000, 9). In its initial format, PT had three main principles: the use of imagination to find a solution for the problem, the asking of questions which children do normally, and play (Craft 1999). These three principles formed the original conception of PT. However, the concept of PT has been developed and changed over the years. PT implied the learner's engagement with problems and the shift from 'What is this and what does it do?' to 'What can I do with this?', whether this is through question-posing or behaving 'As if' (Craft 2010).

The pedagogical strategies that had been evidenced as crucial for fostering the development of PT (Figure 1) in classrooms are: 'standing back, profiling learner agency and creating time and space' (Cremin, Burnard, and Craft 2006, 108). Standing back, fosters learners' autonomy, and provides students the opportunity to follow their own interests gaining agency in their learning. In this way, the teacher can notice children's actions, understand their thinking in the process and build on this. Enriched space and stretchy time, it is argued, encourages children's motivation and involvement in the activity. These principles can help the engagement of children by allowing them to make decisions and take responsibility for learning (Figure 1).

Craft, McConnon, and Matthews (2012) in their study, build on previous findings that have documented PT, tried to answer two questions which are 'How is children's creativity manifest in child-



Figure 1. A model of pedagogy and possibility thinking (Cremin, Burnard, and Craft 2006, 116).

initiated play?’ and ‘What is the role of the practitioner in supporting creativity in child-initiated play?’. In response to the second question, the analysis revealed five ways in which practitioners supported children’s creativity in child-initiated play. These were by provoking possibilities, allowing time and space, being in the moment, making interventions and mentoring in partnership. The new PT features in relation to pedagogies helped to develop a new representation of PT.

Focusing more on teacher’s pedagogies, it is argued that allowing time and space for children’s responses, being in the moment with the children, making interventions and mentoring in partnership can provoke possibilities. Craft et al. (2012), the strategies of valuing learner agency and offering time and space and extended the strategies of standing back and enabling context. The teachers are seen as co-authors or ‘meddlers-in-the-middle’ (Craft et al. 2012) balancing standing back and stepping forward in their classroom. These can be seen through Figure 2.

However, what is much clearer in this study is how practitioners blended standing back with stepping forward into children’s play-space, co-imagining with the children. The above analysis offers further insight into the dynamic between children and between children and adults (Craft et al. 2012).

Cremin, Chappell, and Craft (2013) revisited key published work, and drawing on data previously analysed for PT features, explored how narrative might relate to the current theoretical framework. This new analysis revealed that narrative plays a foundational role in PT and that the narratives were individually, collaboratively, or communally constructed and had a common set of narrative features. Figure 3 shows how the new analysis extends the previous studies in terms of the role of narrative in PT as well as the teacher’s role in this procedure.

This current paper draws on the theory of PT already built (Burnard et al. 2006; Chappell et al. 2008; Craft, McConnon, and Matthews 2012; Craft et al. 2012; Cremin, Burnard, and Craft 2006; Cremin, Chappell, and Craft 2013) and explores and expands the theory on pedagogies inspiring PT during the follow-up lessons of a museum visit, using the interactive museum programmes as the learning space that will inspire the exploration of novel (for the children) ideas and concepts.

1.2. Museums and PT. How they link?

Csikszentmihalyi (1997) proposed a model of creativity that links creativity with culture and in a more broaden sense with museums. According to Csikszentmihalyi, creativity results from the dynamic operation of ‘a system composed of three elements: a culture that contains symbolic rules, a

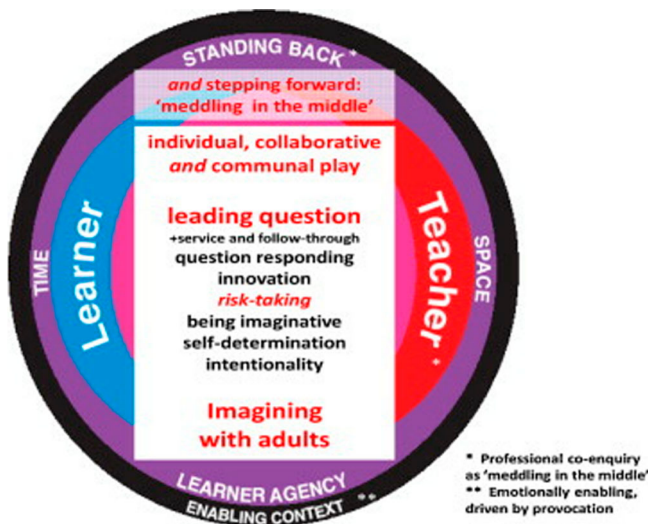


Figure 2. Pedagogy nurturing possibility thinking (Craft et al. 2012).

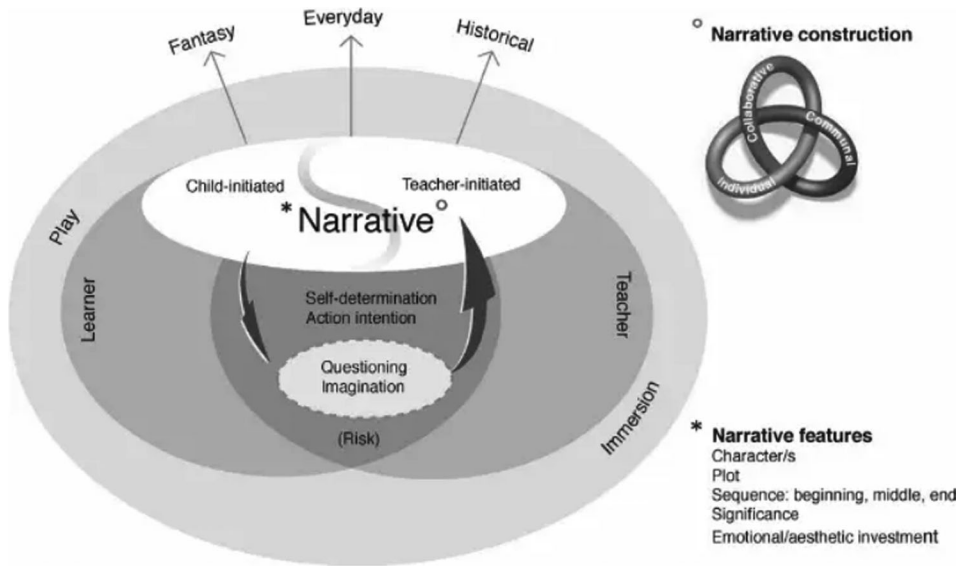


Figure 3. The role of narrative in possibility thinking (Cremin, Chappell, and Craft 2013).

person who brings novelty into the domain, and a field of experts who recognise and validate the innovation' (Csikszentmihalyi 1997, 6). These three main elements (person, field, and domain) affect the others and are affected by them in turn (Csikszentmihalyi 1988). Each component is a necessary factor in creativity but is not sufficient, in and of itself, to produce novelty.

Another theory proposed by Glăveanu (2010) argues that a cultural framework of creativity in which the creation of new artefacts is emerging between the creators and different audiences is impacted by the cultural resources. These three elements are immersed in dialogue with 'an existing body of cultural artefacts, symbols, and established norms' (Glăveanu 2010, 12). This model shows that the 'tension' between these elements shapes creativity, with the 'new artefact' to be part of the 'existing culture'. Strong links exist between the creative outcome and the creator, and each has a role in constructing this identity. But how a museum can support these processes and creativity to emerge?

Museums are ideal places where stories can be told that encourage visitors to make their own meanings. Dickinson and Neelands (2006) noted that: Stories are the most fundamental way we learn. They teach without preaching, encouraging both personal reflection and public discussion. Stories inspire wonder and awe; they allow a listener to imagine another time and place, to find the universal in the, and to feel empathy for others (Dickinson and Neelands 2006).

Drama and improvisation, according to Lemons (2005), provides an accepting and supportive social community, in which creators can face uncertainty and take risks, to be open to experience, trust others' potential to contribute, and therefore build on their confidence. He emphasises that the process of improvisation is itself a challenge and a risk-taking action: it 'requires a willingness to abandon routines' (Lemons 2005, 30), especially when receiving unexpected responses from other team creators that need to be built on. This kind of exploration link with the notion of PT and the everyday creativity is the focus of this paper.

The story, or the content of an interactive museum, can involve social issues (Bolton 1992), or themes from other subjects such as an historical event (Clements 1996; Somer 1994), unfinished stories told by the teacher and needing to be developed by learners (Heinig 1993), or the story invented by the whole class with the teacher's prompting and guidance (Wagner 1999). No matter in which form, there is always a tension in the story (that is what makes the story interesting), which enables teachers to set a context that not only involves experience related to children's

everyday life but also triggers children's curiosity 'with problems to solve, with open-endedness that requires a filling in of gaps, with information and ideas to synthesise into new relationships ...' (Torrance, in Heinig 1993, 8).

If story is the mean to arouse curiosity and invite children to jump into a learning context voluntarily, then role play is the vehicle through which children explore or develop the dramatic context. By being in role and acting out in drama, children are learning by doing, experiencing the tension, or confronting the problem themselves, instead of merely reading or accepting knowledge from the teachers. The reason that drama is effective in helping children make sense of meaning is because: 'children learn best by making and doing, and drama provides them with a physical and concrete resource for examining issues that might otherwise remain abstract and inaccessible' (Neelands 1990, 25).

Through story, children's curiosity and their active engagement are aroused. As they experience delight in learning a new story, they are also offered the opportunity to experience the tension themselves, to solve the problem, or explore the gap by being in roles imaginatively. Children not only live through their knowledge by acting in a different role, but also learn to pose questions, find out more possibilities, take risks, and be playful in inventing new ideas. These features reflect the notion of PT as well as link further PT, drama, and museum interactivity.

2. Context of the study and sample

The study was four months long and it was conducted in Cyprus. The four primary schools are public institutions in Larnaca. The sample of this study consisted of eight case study teachers with their students aged 9–10 years old. Eight cases were chosen to 'make a compromise between the difficulties of multicase and the limitations of a single case study' (Lin 2010, 112). The reason for selecting these eight teachers was that they had as their primary goal to foster and inspire creativity and creative thinking in their classrooms using out-of-classroom resources. These eight cases visited two public museums (Museum A and Museum B).

It was teacher's decision which museums to visit. Several factors were taken into consideration. Firstly, it was the experiential and interactive nature of the programmes. Secondly, the theme and the areas of the curriculum in which these two programmes involve the students have as a target to nurture students' creativity and creative thinking. An additional factor was the easy access for the students and teachers to take part and participate in these programmes.

3. Methodology

A case study approach was used to guide the data collection and analysis. This study was a combination of descriptive and multiple-case studies. The study is situated within the interpretive paradigm, seeking a deep understanding of participants' experiences. Therefore, data collection involved a variety of naturalistic methods such as one-to-one interviews with the teachers; classroom and museum visits observations (field notes, video-recordings, and still images); and teachers' and researcher's reflections, for gathering qualitative data.

The data collection of this study encompassed several stages. The first stage of data collection was the interviews, which were conducted with teachers not only at the beginning and at the end of the study but during many phases of this project. The second stage involved classroom and museum lesson observations which were video recorded. During all the lessons, the teachers and the researcher sought to undertake reflection-on-action (Shön 1987) in their diaries. The third stage involved the clarification and triangulation of the research findings. The teachers watched specific episodes of the classroom and museum visit videos and reflected upon them. The data reduction of this study involved the narrowing in on 78 selected episodes out of 95. The selected episodes were representative of descriptive codification.

The analysis follows the basic coding sequence (Open Axial Selective) iteratively between primary data and the emerging theoretical framework (Warburton 2005). In the data analysis, it was aimed first to identify open and axial codes for the teacher's/museum educators' pedagogies for fostering PT. The data analysis was a deductive procedure having in mind the PT features identified from the literature (Burnard et al. 2006; Craft et al. 2008) and at the same time, the researcher remained open to other possible pedagogical features which might emerge from the analysis. The primary aim was to identify categories and concepts emerging from the text and then to link them with the axial codes. Through the above stages, the organisation of the analysis was largely derived from the PT framework. Appendix 1 (Table A1) shows the overall analysis process of the pedagogical features identified in the eight cases with the plan of the instruments used for the data analysis process.

4. Ethical considerations

Ethical issues are of great importance in research and should be indivisible from every step of the research process (Creswell 2009). Therefore, ethical issues were taken into serious consideration in the research plan and comply with the guidelines issued by the British Educational Research Association (BERA 2018). The ethical issues that could be raised for this study are related to the data. The informed consent of the research institutions' ethics committee, the Ministry of Education and Culture in Cyprus, as well as the participants' written approval (teachers and parents) has been gained. Children's informed consent was gained as well. As far as their privacy is concerned, the participants' data were treated with confidentiality and anonymity to cover their right to privacy. Pseudonyms were used for children (e.g. Girl A, Boy A), for teachers (e.g. Case 1), for schools (e.g. School 1), and the museums (e.g. Museum A). The participants were informed that the data were kept on a secure password-protected computer, that it would be only for the researcher's personal use and that no person would have access apart from the researcher. The teachers and children were informed from the beginning of the project about their right to withdraw from the research for any or no reason at any time.

5. Findings and discussion

The data analysis revealed that the pedagogical features used by the teacher for nurturing their student's PT identified were common across the eight cases, namely, time, space, providing learner's agency and teacher standing back and forward into the learning process. An additional pedagogical feature was identified: the narrative improvisations inspired by the interactive museum programme. In this section, the themes are exemplified through quotes and vignettes from the case studies, which demonstrate the teacher's pedagogies used for nurturing children's PT.

For this paper, four episodes were selected for detailed exemplifying in Appendix 2. The reason for choosing these specific key episodes was the detection of children's PT. The identification of PT and pedagogical features in the episodes was derived from existing PT frameworks such as those of Burnard et al. (2006), Craft et al. (2012), and Cremin, Chappell, and Craft (2013). Explaining and interpreting these thematic topics holistically, with illustrations relating to the research question, will be undertaken in the following pages.

5.1. Narrative improvisations from museum programs inspired teachers' pedagogies

Museums are now brokers of experiences, not just collectors of objects (Emery 2001; Freedman 2000; Matheson 2006). Museum interactivity can adopt two essential approaches based on the collection that it holds. These are the story and the role play which can enact various practices in drama (e.g. theatre games, improvisation) and contribute to achieving the objectives of drama. Dickinson and Neelands (2006) suggest that story, at the heart of everyday lessons, is the imaginative resource that gives delight and stretches the imagination, while role play offers the opportunity for imagining

oneself differently when facing the same problem or situation as in the story. The dynamics between these can involve the children in narrative nature activities with 'as if' concepts very easily.

The analytical process of this study resulted in and identified all the key PT pedagogical features identified from earlier studies Burnard et al. (2006); Craft et al. (2012); Cremin, Chappell, and Craft (2013). The analysed episodes in this study were characterised as fantasy and historical narratives in nature. Contrarily, with Cremin, Chappell, and Craft (2013) study, the everyday narrative was not identified in the analysed episodes. This happened because the everyday narratives were 'more grounded in what is realistically possible' (Cremin, Chappell, and Craft 2013, 18), something that does not reflect the context of the project as it has as a theme in the Greek myths and legends. Fantasy and historical narratives were evident in all the analysed episodes of this study.

Four extracts from episodes documented after the museum programmes have been selected here to make the argument of this paper stronger. The episodes selected draw upon observations, field notes, and teacher's reflective journals. It is important to note that all the episodes presented here are the researcher's translations from Greek.

It was evidenced that the multi-sensory museum programme that the students came across during the visit inspired them to remain active and engaged through the visit and nurtured their PT. Case 5 teacher (TRJ, Case 5, MV) reflected that the museum educator used the museum's exhibits to create a fascinating story to inspire students' curiosity, engagement, and imagination and encouraged learners to express themselves creatively, and as a result, the teacher kept the lesson full of experiences (TRJ, Case 5, MV). She also reflected that, 'as a result, the follow-up classroom lessons always have some of the sparking atmosphere that the visit created for the children ... the teacher needs now to take advantage of that in the follow up lessons' (TRJ, Case 6, MV). Case 6 teacher (TRJ, Case 6, MV) pointed out in her reflections that the children's participation in this unique scenario stimulated and challenged them. 'I will do the same' (TRJ, Case 6, MV) she added to her reflective journal adding this statement into a circle to emphasise it.

Regarding the findings of this study, a pedagogy that the teachers perceived from the museum visit programme were the Narrative Improvisations. This study describes the term 'Narrative Improvisation' as a teaching process through which the students were occupying a character in a particular time, space, and position. This was achieved through the creation of a unique plot from the teacher that the students were participating in filled with a range of experiential learning opportunities. The teacher is using a role to start 'writing' the drama. Then the children were selecting the rest of the plot, phrases, and actions and use an imaginary, 'as if' role to 'write' themselves into the action. Through this, the students were acting, talking, problem solving, or reacting at the moment and this is something that the narrative nature of the museum visit programme enabled students to do. It was evidenced that the learning was made important, fun, and relevant to children's learning through drama activities something that links with what Dickinson and Neelands (2006) argue. Therefore, creative learning methods are required in the learning process in drama (Mages 2006). The teachers through this dramatic process gave the children autonomy over their learning (learner agency) and gave time and space for the children to actively engage with the scenario, which involved children's creative capacities.

The first example took place after the Museum A visit, in which the teacher created cross-curricular activities, inspired by the museum programme and museum objects. The Case 4 teacher decided to expand what the children did during the museum visit in the home economics lesson (Recipe episode). During the visit, the students participated in the excavation, and among the findings were olives, figs, almonds, sinkers for fishing, and oil containers. This teacher inspired by the museum scenario (Appendix 2) continued to use it during his follow-up lessons. The Case 4 teacher decided to use the same narrative improvisations in his first follow-up lesson during the Home Economics Lesson, as the one which the children participated in during the visit. At the follow-up lessons, he praised his students for experimenting and making a recipe by considering their findings from the excavation.

I would like you to close your eyes (sound of the sea was at the background) travel back in time and place yourselves on 'Kyrenia I' ship. (a minute of silence) Ahoy sailors. Your captain is speaking! Hello my sailors! It is time for us to cook to celebrate our journey to the sea. Here are your ingredients and you can use one more ingredient of your choice. What will you cook?' [...] Children started creating their recipes. This exploration took 40 minutes. At the end they placed all their recipes in a middle round table. As sailors they tasted each other's foods and then they voted using an amphora for placing the votes. (Ob, Case 4, L6-Ep8)

A group of children created a well-known recipe, including one magic ingredient which they argued that the mermaid Thessaloniki gave to them during the museum visit. They refused to reveal what this magic ingredient was as mermaid Thessaloniki would curse them (Ob, Case 4, L6–E8). During the episode, the following conversation took place between the members of the group:

[...]

Boy A: Our recipe has nothing special; no one is going to be impressed. It is just a salad.

Girl A: It does not matter, we tried our best.

Girl B: Wait a minute, I will add a special ingredient. (Then the girl brought a small bottle full of glitter from her pocket and pretended to add a small quantity to their recipe.) I will add just a little ... not too much. (Then she stirred their salad and tried again). Ah ... Now it tastes much better.

Boy A: Let me try (the boy tries their salad). You are right, it tastes different ... wow ... Where did you find that small bottle? Who gave it to you

Girl B: I will tell you, but it is a secret ... mermaid Thessaloniki gave it to me yesterday.

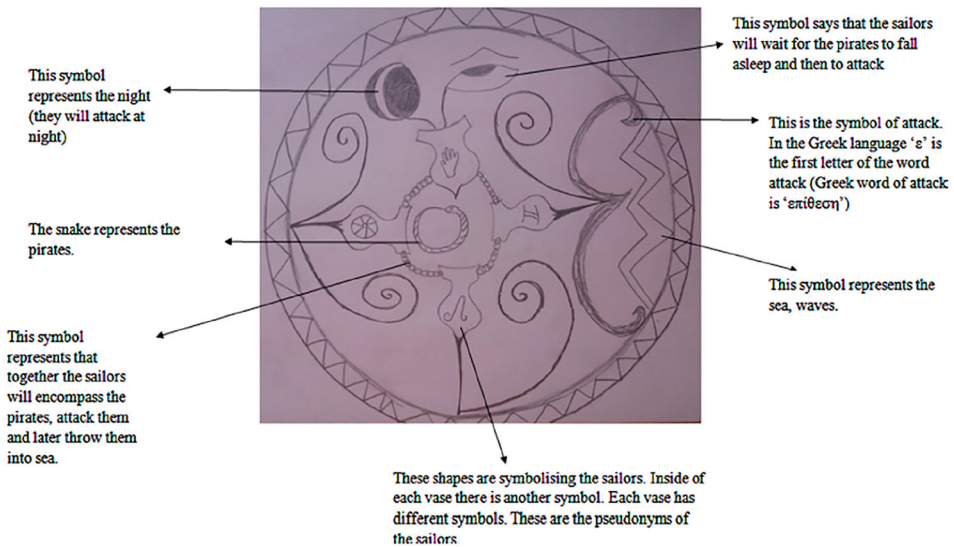
Boy A: I think it will be better not to reveal this magic ingredient as mermaid Thessaloniki will curse us. Then all the group members agreed, and the girl put the small bottle back into her pocket.

[...]

(Ob, Case 4, L6–E8)

The findings revealed that the narrative improvisation inspired children's exploration and experimentation. These narrative improvisations lasted from the beginning until the end of the lesson with the children responding to the teacher's task by placing themselves in an 'as if' context. The teacher gave them time to explore and a space full of possibilities to support them further. Additionally, the teacher encourages children's autonomy and agency, something that agrees with Cremin and Chappell (2019) literature review of 17 papers. The teacher was observed to stand back during this exploration to let the children freely experiment. The narrative improvisation required the groups to invent and create a recipe and a story around their recipe by combining previous knowledge, innovative imagination, and playful spirit. Children were responding to the teacher's task by placing themselves in an imaginary context (verbal or non-verbal) and by testing, predicting, undoing, accepting, rejecting, evaluating, compensating, and completing. The children were highly motivated from the museum visit scenario and were highly engaged in the cooking task, by thinking concepts, engaging closely with one another, imagining, and solving diverse problems. Being imaginative and playful with ideas led to innovative concepts and solutions for the scenario task that their teacher involved them in.

The second example took place during the follow-up lesson after the Museum A visit. The Case 2 teacher engaged the students in an imaginary story, based on the museum visit scenario that the children took part in, further extending the narrative context that the museum visit had created around sea. According to the scenario, the students were sailors who were captured by pirates, and they should create a secret encryption code to communicate with their companions to agree on how to escape. The episode itself focused on a group of children who created a code that looks like a drawing (Picture 1). The episode tracks them creating a drawing, thinking about their escape, and beginning to design their own secret code with a specific focus. The teacher's narrative improvisation used the children's previous interactive experience from the museum visit to frame their thinking and connect current and previous experiences. The drawing represents a story, in which the sailors had to wait until the moon takes the place of the sun and the pirates eventually fall asleep. Then all of them had to surround the pirates and throw them into the sea. In the drawing, they represented themselves with the shape of a vase because they had transferred a lot of vases with their ship *Kyrenia I*. The sailors were linked with chains because the pirates



Picture 1. Using symbols (Ob, Case 2, L6-E8).

locked them up by using chains. They put their secret name code into a circle with a lot of other drawings, for the pirates not to identify that it was a secret code.

This dramatic process and the theatrical atmosphere (narrative improvisation) created by the teacher managed to inspire children's creativity and PT. Children had the time and space to explore and they were encouraged to make their own decisions about their own stories; they were encouraged to engage in, to control, and to contribute to their own experimentations and explorations with the narrative playing a foundational role. The findings revealed that the narrative improvisation required the group to create and invent a code. The teacher reflected that (TRJ, Case 4, F1MV), 'They had lots of possibilities on their hands because they emulate with concepts and language to tell their own stories by writing in symbols.' She added that (TRJ, Case 4, F1MV) this group invented a code by being in an 'as if' world, using unusual interpretations and stepping beyond the obvious. 'They were so inspired by the vase from the museum visit and the symbols that the vase has on it' (TRJ, Case 4, F1MV). It was observed that they were playing with ideas and new possibilities, encountering, and solving the problem, as well as having a strong connection-making between ideas and actions (RRJ, Case 4, F1MV). The children used this possibility space created by the narrative improvisation provided by the teacher, imaginatively responding to one another's questioning, introducing new elements, and shaping the narrative; they engaged individually and collaboratively to construct it. The teacher stood back and gave time and space for the children to explore and experiment.

The third episode can be seen in Case 7 (Ob, Case 7, L5-E5) in which the teacher is inspired by the museum visit B scenario about the exchanging of goods (Appendix 2). The narrative improvisation created by the teacher invited students to be 'transformed' into kings of the twelve Cypriot kingdoms of ancient times. They were able to keep in these roles from the beginning until the end of the lesson. The students were able to feel, think, and act in a context very successfully. The children chose which kingdom they wanted and after doing research and learning all about their kingdoms they participated in a kings' conference. The following quote shows what happened during the conference:

Teacher: Let us make a toast for today's meeting. I hope that we will have a good year with lots of profit.

-Cheers! [said all together and trying to clink their glasses]

- Teacher: For a long time now I wanted to organise this conference in order for us to talk to each other, my friends. We have to create a plan for our trade. We must agree the countries that each of the kingdoms will have trade with, in order for all of us to have profits and not to have any disagreement. Do you agree?
-Yes ... yes we agree. [said all together]
- Teacher: OK, let us start our conversation. What are your plans, King of Kition? [...]
- King of Tamassos: I intend to cooperate with the King of Kition if the kings want. I was thinking to export my copper to some of the Greek islands like Crete and Milos [the king showed to the other kings the two islands on the map]. What do you think, King of Kition? Are you interested? I will give you 20% of the profits.
- King of Idalion: [the king of Kition was going to talk but the King of Idalion interrupted him] Ah ... just a minute. This was my plan also. I will do it. Not you. My kingdom is full of copper. What I am going to do with it? Forget it. [said angrily]
- King of Tamassos: What are you talking about? I said it first. This was my idea.
- King of Idalion: Yeah, right. I will give you 25% of the profits, King of Kition.
- King of Kition: Well ... [King of Tamasos interrupted King of Kition]
- King of Tamasos: I will give you 30%.
- King of Idalion: I will give you 35%.
- King of Kition: My friends, we will find a solution. [...]
(Ob, Case 5, L1-E1)

The students' narrative was driven by participating in the symposium during the museum visit programme and continued later (during the follow-up activity), with their participation in the king's conference. The teacher created this possibility space/scenario (narrative improvisation) inspired by the museum programme and the children responded to the task imaginatively, in an innovative, playful, and intentional way, and shaping the narrative. The teacher offered time and space for the children to explore their ideas and to be part of the narrative with the teacher helping and supporting the children throughout the process giving them learner's agency. Children's PT was constructed individually, communally, and collaboratively. The children used the possibility space created by the narrative improvisation and created a strategic plan for their kingdoms, responding to one another's questioning, accepting, and rejecting ideas and shaping the narrative. The teacher was observed to standing back and forward during this process, something that was also observed by Craft et al. (2012).

The fourth episode inspired by the scenario and the exhibits of Museum B (Appendix 2) was about the myth of Arion being saved by dolphins at sea. During this episode, this group of students decided to role play the scene they imagined answering the teacher's question, 'What would happen if we took the story a step further? If you were Arion, what will you do? How will you save yourself?' A group of children imagined that Arion asks for the king's help after he is rescued by the dolphins. Thus, the following scene took place:

- [...] The king was looking sceptical and was touching his mouth. Then he turned to his left side (there was no one there) and started shouting.
- Boy C (King): Guards! Guards, go straight to the harbour. Arrest the sailors who tried to kill Arion, take all their gold, and bring them in front of me on their knees. [Then he turned to Arion.] They will apologise to you and then we will throw them into the sea. They will not hurt you again.
- Boy D (Arion): Thank you my King. [...] (Ob, Case 8, L2-E2)

Then the king organised a symposium for Arion where all the children in the classroom took place. Music was on and a girl (who was not taking part to the scene) started dancing pretending to be one of the participants of the symposium. It was affirmed by her physical engagement that she was acting as if she was one of the participants of the symposium. The videos and the transcriptions showed that she was clapping her fingers to have a rhythm from the music that she imagined that they were listening to. She was into her role. She was so concentrated to what she was doing. Suddenly, another student came next to her and he was pretending to play music (RRJ, Case 8, L2-E2).

This group of children used this possibility space created by the teacher to imaginatively respond to the teacher's question, introducing new elements and shaping the narrative; they engaged individually and collaboratively to construct it. The teacher once again gave time and space for the children to explore and to involve at the end the whole class in the symposium. The teacher was standing back most of the time and let the children to create characters that did not exist and managed to involve them into their scene by being imaginative, self-determined, intentional, and playful with ideas and context, as well as innovative. The above scenario was something unexpected from the teacher's point of view. As she commented in her reflective journal,

This was fantastic. He explored and expanded his role by placing himself in the king's shoes. I could never imagine that by participating in this museum programme will provide me with a new teaching technic. I have never though that using a scenario from the beginning until the end of a lesson will inspire children imagination and participation so much. (TRJ, Case8, L2-E2)

She argued that using more drama-based activities and a scenario in her lessons changed a lot the children's learning outs and creative thinking (TRJ, Case8, L2-E2).

Considering the above episodes and revisiting the literature, not only on PT but also in the educational literature in general on teacher's pedagogies it was identified that there is a strategy which is very similar to what this paper proposes. This is the strategy of 'simulation' which engage the learners in problem solving, hypothesis testing, experiential learning, schema construction, and the development of mental models (Duffy and Cunningham 1996; Winn and Synder 1996). According to the literature on of the categories of simulations, is the 'situational' simulations. These simulations often employ role playing as a vehicle to allow students to explore different options and decision paths (Wilson and Cole 1996). However, what makes the narrative improvisations different from simulations is that these scenarios last from the beginning until the end of the lesson with the teacher creating it and giving time and space to the learners to explore. The teacher was observed to have different acting roles during this process (standing back or supporting the children). There are ongoing efforts towards developing and evaluating the use of simulations to facilitate situated learning. The findings of this study unpacked further the development of this category linked it with the aspiration of PT and creativity in museum visit follow-up lessons.

The findings of this study also agree with what Glăveanu (2010) proposed, adding again the factor of creating a narrative improvisation in which the children took part. As was mentioned in the literature review, Glăveanu (2010) proposed a cultural framework of creativity in which the new 'artefact' creation is emerging between the creators and different audiences, impacted by the cultural resources. It was identified in this study that the 'tension' between the museum's historical artefacts, the children and the powerful scenario shaped creativity, narrative, and children's PT, also during the follow-up lessons as teachers were inspired from this 'tension' as well.

The museum context was found to be powerful in enhancing and inspiring not only children's PT but also teacher's pedagogies after the museum visits. Due to the museum project and the museum environment, teachers were inspired and add the pedagogy of narrative improvisation which links drama to their teaching. As they could see that children seemed to feel safe to try possibilities, experiment, explore, and finally make their own choices after a discovery process. The findings link further with Csikszentmihalyi (1988) as well as with Glăveanu's (2010) conceptions. The findings of this study showed that the relationships between culture, children, and experts, as Csikszentmihalyi (1988) proposed, were important components for the aspiration of narrative and the nurturing of PT and the teachers took advantage of that by creating these narrative improvisations.

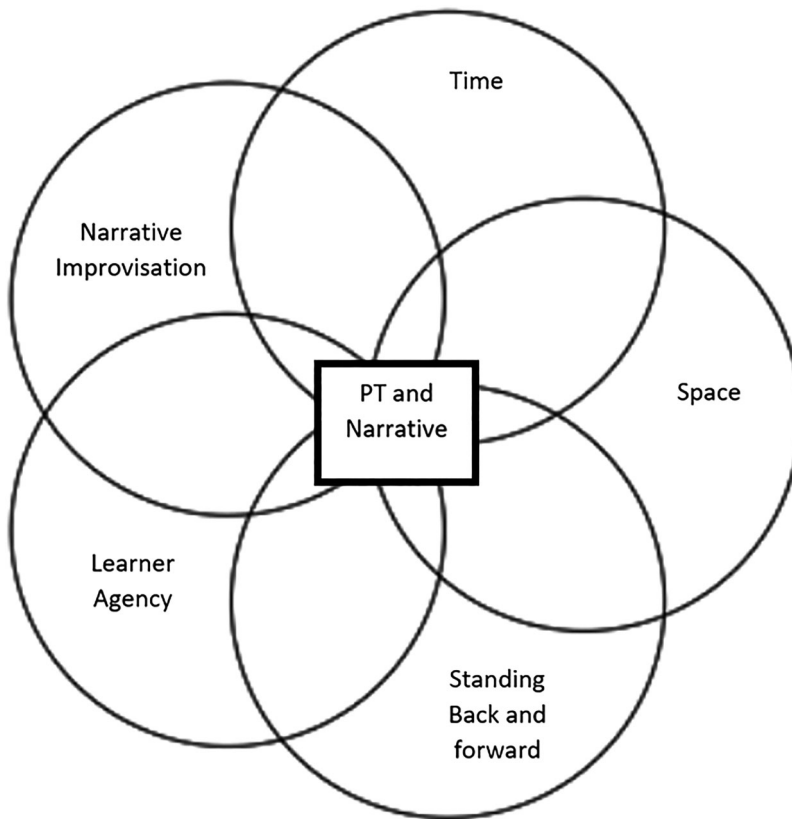


Figure 4. The five-pedagogy model.

5.2. The five pedagogies model

This current paper focused and unpacked further the pedagogies used by the teachers after the museum visit for nurturing their children PT and creativity. Figure 4 shows how narrative and PT were fostered after the museum visit according to the findings of this study. The four pedagogies (narrative improvisation, time, space, learner's agency, and standing back) are interconnected and result in each other, rendering it a resonant process. Thus, nurturing of children's narrative and PT is inspired through the interaction between the five pedagogies. Each element is a necessary factor for inspiring narrative and PT but is not sufficient of itself to produce creativity. This is one of this study's key contributions to the field of understanding how teachers foster PT inside the classroom after the mv.

Narrative improvisation was one of the pedagogies that the teachers perceived from the museum visits in nurturing students' PT. The teachers used this pedagogy to a great extent during the follow-up lessons contrarily to the lessons before the visit where there were few activities based on drama but unless extend. Narrative Improvisation was seen to be working in complex combinations with the previously identified PT pedagogical features (time, space, learner agency, standing back and forward). This pedagogy constituted an important step beyond what had been previously identified regarding the pedagogical features that the teachers used for fostering their children PT and this was perceived through the museum visit.

6. Concluding remarks

As was previously stated, the research on PT has not previously been related to museum education. Research over the last decade into school groups that visit museums reveals their unique

educational value, if appropriate approaches and methods are used (Anderson, Kisiel, and Storksdiack 2006). This current research represents a breakthrough in the study of PT and museum education, revealing the foundational role that interactive museum visits played for inspiring not only children's PT but inspiring teacher's pedagogies as well. The analysis expands our understanding in the field, of the pedagogical features fostering PT, inspired by the interactive museum programme. The identified pedagogies were the provision of time, space, and learner's agency with the teacher to stand back or support the children at different parts of the process during the follow-up lessons. The new pedagogy identified was the narrative improvisations inspired by the museum visits. It was identified that there was an interaction of these elements which are interconnected and result in each other. Narrative improvisations identified to play a central role of fostering children's PT and creativity compared with the earlier studies on PT. It was seen to be working in complex combination with all the other pedagogies already identified for fostering PT.

Overall, this study offers an insight for the further understanding the pedagogies used by the teacher for the development of narrative and PT features, as well as how interactive museum programme inspired teachers everyday teaching. A challenging question that would be valuable to investigate is what happens with different age groups of children and museum education. Do narrative improvisations still help children's PT to be nurtured? What happens with another context/ space like art galleries or science museums? Can narrative improvisations be helpful for inspiring Children's PT in general? Further exploration and closer examination of these concepts is needed in the future.

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Appendices

Appendix 1

Table A1. Data analysis process.

Data analysis process for Research Question 2							
Stage one: open coding						Stage two: axial coding	Stage three: selective coding
The main ideas of thematic topics of the data analysis	Instruments of data collection					Grouping of ideas into similar content	Combined the main categories which drawing together the overarching categories
	Int	Ob	TR	RR	Ph		
Time for role playing	√	√	√	√		Flexible time on group work	Time
Time for written narrative		√	√	√			
Time for group discussions		√	√	√			
Exploring a scenario in a given time	√	√	√	√		Contained time on discussions	
Limited time for first responding		√	√	√			
Limited thinking time for responding to one another's ideas		√	√	√			
Large working areas	√	√	√	√	√	Physical facilities	Space
Group work areas	√	√	√	√	√		
Access to computers	√	√	√	√	√		
Access to a library	√	√	√	√	√		
Electronic facilities (like projector and interactive whiteboard)	√	√	√	√	√		
Teacher's personal contact with the students	√	√	√	√		Emotional facilities	
Eye contact		√	√	√			
Giving feedback		√	√	√			
Clear instructions	√	√	√	√			
Teacher open to new ideas	√	√	√	√			
Teacher open to discussion	√	√	√	√			
Teacher's caring relationship with students	√	√		√			
Use of different types of materials	√	√	√	√		Learning facilities	
Use of different kinds of learning activities	√	√	√	√			
Cross-curricular nature of teaching	√	√	√	√			
First-hand experiences	√	√	√	√			
Collaboratively, communal and individual ways of working		√		√			
Teacher's question posing		√	√	√		Framed discussions	Learner agency
Teacher leading the discussion		√	√	√			
Teacher active participant to the discussions		√	√	√			
Flexible role-playing activities				√		Flexible group activities	
Flexible cross-curricular activities		√		√			
Flexible written narrative activities		√		√			
Role-playing activities	√	√	√	√	√	Scenarios through role playing	Narrative Improvisations
Narrative simulations		√	√	√			
Collaboratively, communal and individual ways of working		√	√	√	√		
Creation of a plot/scenario for the whole lesson	√	√	√	√			
Verbal Questions-	√	√	√	√		Scenarios through exploratory	
Dimension 1: Leading questions		√		√			

(Continued)

Table A1. Continued.

Data analysis process for Research Question 2							
The main ideas of thematic topics of the data analysis	Stage one: open coding					Stage two: axial coding	Stage three: selective coding
	Instruments of data collection					Grouping of ideas into similar content	Combined the main categories which drawing together the overarching categories
	Int	Ob	TR	RR	Ph		
Dimension 1: Service question		✓		✓			
Dimension 1: Follow through questions		✓		✓			
Dimension 2: Possibility moderate		✓		✓			
Dimension 2: Possibility narrow		✓		✓			
Children being in roles	✓	✓	✓	✓	✓		

Int, teacher's interview; Ob, observations (classroom and museum visit); TR, teacher's reflective journal; RR, researcher's reflective journal; Ph, photographs and still images.

Appendix 2

Table A2. The museum programs and the four episodes for exemplification in this paper.

Museum	Teacher	Follow-up lessons
Museum A created a programme based on the Greek mythology. In the programme, the children, with the help of the magical mermaid and Triton (which are characters from Greek mythology) travel back in time and listen to the secrets of the sea. The idea behind the programme and for using these two characters is that the museum draws on the children's own current cultural experience as an entry point to the exhibits in the museum to have an interesting and fascinating programme. The students are converted into archaeologists and with an underwater excavation reveal the findings of the Kyrenia wreck. Then, they board the 'Kyrenia II' (a replica of the Kyrenia I that is placed in the museum) and go travelling around the Mediterranean, where they have the chance to travel to new places, meet new people, and exchange their goods. Avoiding the pirates and making paddles, they manage to successfully back on the golden beaches of Cyprus, wiser, and richer in mind and heart. However, the mermaid did not stop wandering into the sea. She continues wandering, exploring, and looking for Alexander the Great (who is her brother according to the legend).	Case 4	<i>Recipe:</i> Ensued from a prompting by the teacher. Children were provided with any ingredient they wanted for their recipe but considering the findings of the museum excavation. These findings were olives, figs, almonds, sinkers for fishing, and oil containers. The episode is from a group of children that created a traditional recipe but with a magic ingredient which they refused to reveal. The episode is from the classroom lesson after the museum visit to Museum A.
		Case 2
Museum B created a program where the children were using their imagination to be transformed to traders and discovered and interacted (through a story) with the archaeological findings related to the sea. They found vases and other ceramics (large dishes jugs, jars, cups, plates) from potters who lived on the island and have designs from the world of the sea (fish, squid, scales, and octopus). They travelled to the neighbouring countries through role-playing activities to exchange their goods. They found objects and they brought these objects back to Cyprus from neighbouring countries (Egypt, Phoenicia, Greece, etc.). During the last phase of the visit, the children will be transformed to be citizens of ancient Kition and were invited to a symposium.	Case 7	<i>Kings conference:</i> Ensued from a prompt by the teacher. Children were provided with a map showing all the ancient kingdoms in Cyprus. The children decided which king they wanted to be, then using classroom resources and everything they learnt during the museum visit to Museum B, explored their kingdoms. At the end, they participated in a role-playing activity, the 'Kings conference' in which they created a strategic plan for exporting goods. The episode is from the follow-up classroom lesson after the museum visit to Museum B.
		Case 8