

The “Shaken Photos” Project as a Stimulus for Developing Creative Thinking with Preschoolers

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Abstract

Using a digital camera to achieve a successful result requires from the user, first and foremost, to be familiar with the proper use of the medium and to have obtained basic knowledge of the principles of the art of photography. What is the result in those cases where the photographer either does not know the basic principles of photography or cannot apply them effectively in practice? Is the product considered a “failure” thus leaving photos with no clear and recognizable objects? This paper focuses on designing and implementing an applied educational intervention, themed on “shaken” photos taken by preschoolers and using this material to create digital narratives. This case study examines “shaken” photos as an opportunity to develop imagination and creativity through photography.

Keywords: creative thinking, visual literacy, photos, preschool education, digital narrations

Introduction

Creation and imagination have always been crucial factors for cognitive and emotional development. In preschool education, children have different skills, competencies and life experiences because of their age and special developmental characteristics. Creative thinking is encouraged through various means and stimuli during educational activities. According to Anning (1999), when young children enter formal education they possess a variety of ways to represent and communicate their thoughts such as painting, drawing, role play, storytelling, etc., which they gradually use less as they focus more on academic skills and symbolic systems, such as reading and arithmetic. Children create their own “representational” resources and invent original ways of making meaning, from converting assorted everyday objects, (e.g. empty boxes, paper roller), into spaceships, binoculars, etc. This action “is part of a continuous production of signals, during which the signals that have already been created become material that will be transformed into new signals” (Kress & Van Leeuwen, 1996, p. 11). Nowadays, researchers describe “multiliteracies” which form a different kind of pedagogy, “allow[ing] for different modalities in meaning making, embracing alternative expressive potentials for different learners and promoting synaesthesia as a learning strategy” (Cope & Kalantzi, 2009, p. 188).

The “shaken” photos project aims to highlight the use of Information and Communication Technology (ICT) in preschool children’s creative expression, taking as starting point what is typically considered a “failed” result as a stimulus for developing experimental and imaginative ways of thinking.

Literature Review

According to the Curriculum for Early Childhood Education (Pedagogical Institute, 2011) some of the basic principles of Early Childhood Education are:

- Knowledge is built into interaction with the natural and social environment.
- Play is considered a dominant learning activity.
- The program aims to utilize and strengthen the children’s willingness to explore.
- Children learn through a variety of teaching approaches and express what they know through different means of representation.

A key skill that the Curriculum seeks to promote is creative thinking, since it “leads to new approaches, original ideas and alternative ways of understanding and grasping things” (Pedagogical Institute, 2011, p. 9). Moreover, “kindergarten expands the possibilities... for creative thinking when it promotes the natural tendency of infants for experimentation [and when] the teacher recognizes children’s original and unusual creations..., showing students that their ideas have value” (Pedagogical Institute, 2011, p. 14).

The Curriculum defines ICT as one of the eight learning areas. ICT in kindergarten defines critical objectives to include “search, organization, management and production of information in multiple forms, the development of ideas, personal creation and expression, exploration, discovery and experimentation” (Pedagogical Institute, 2011, p. 11). Through the use of ICT in the school environment, preschool children are encouraged “to develop critical thinking, reasoning, cognition, cooperation, communication, coordination and problem-solving skills” (Pedagogical Institute, 2011, p. 115). ICT content is the acquaintance with the basic characteristics of ICT and the acquaintance with the basic functions of the main means of photography and recording (e.g. digital camera, tape recorder, and computer), the development of original ideas, the production of multimodal information, the collaboration for the production of a joint project etc. ICT is closely linked to all core subjects (languages, sciences, arts, personal and social development, etc.).

The use of photography in research with children is not new. Researchers’ perspectives vary between sociological, ethnographical and educational point of view. Young and Wright (1973) implemented a research project using Polaroid cameras in primary school to study the visual awareness and literacy of children. Calvin (1994) searched the use of Polaroid and pocket cameras by a two-and-a-half-year-old child focusing on the child’s perspective as social actor. Clark (1999) investigated children’s’ experience of chronic illness through informant driven interviews, where photographs taken by children documenting their experience were used as stimuli. Orellana used children’s produced photographs and their comments about them “to illuminate distinctions between the urban spaces that outsiders might notice from particular urban places meaningful to children themselves” (1999, p. 73).

Photographs in education are used for various purposes such as self-evaluation, reflecting and documenting school life, and teacher professional education (Miles & Homes, 2015). From an early age, children are familiar with using digital photographs in educational projects, either as visual elements created by others used as learning material or as self-produced material used with various purposes in class. Some researchers focus on photography in education as a way for children to document daily life and experience as well as to express their ideas for the social environment (Schiller & Tillett, 2004). Researchers also focus on technical issues such as learning to use a camera and practicing photography skills, along with children expressing themselves through photography (Wong, 2020). The camera has also been used in conceptual science investigations with preschoolers (Britsch, 2019). Others focus on the use of digital photography as method for educational mediation. Friedman described an “educational process via digital photography [that] gives preschool children the ability to experiment with problem-solving, and develop curiosity and pleasure in learning, as well as independence, confidence, responsibility, empowerment and participatory learning for both parents and children” (2016, p. 15).

Digital cameras are easier to manage in comparison to the old technology cameras using film, as only by pressing a button the photographer can view the resulting photograph. Digital cameras offer “immediacy of action and output, feedback for the child, and the ability to observe the photo created” (Friedman, 2016, p. 18). Pyle (2013) began her study by showing children how to use a camera so they could provide “more purposeful photographs during the actual photo-taking session” (p. 1550). In the “shaken photos” project, neither the appropriate use of the camera nor the production of purposeful photographs was essential. On the contrary, the “failure” in both aspects—the use of the camera and the result—was the stimulus for implementing of the “shaken photos” project.

The “Shaken Photos” Project

The project was implemented in the Early Childhood Educational Center of Ministry of Employment (OAED), in Athens, Greece, where the researcher works as a preschool teacher. The class consisted of 19 preschool children, aged 4–4.5 years; nine boys and ten girls, with families of average socioeconomical status. The project’s duration was 3 months long.

The idea for designing and implementing of the “shaken photos” project arose during an environmental awareness project using ICT. During that project children were engaged as photographers. They were asked to use a digital camera and capture elements of the school environment (e.g. building, classroom, garden). Then, the children’s photographs were projected in the classroom. During the projection children

were encouraged to remarks on the objects they had chosen to depict. There were several photos with unique characteristics such as: 1) photos that did not represent the whole object but part of it, in a very compact frame (using the zoom feature) which made it challenging identify what was depicted in the picture 2) blurred photos, in which the photographer hadn't kept their hand stable at the time of shooting the photo, or 3) photos that were not focused at all. During their projection, these photos caused the children's spontaneous laughter and various comments, such as, "Oh, this stupid...", "This is nothing". The impetus for the project's implementation came from a child's comment, who when viewing figure 1 spontaneously declared "It is lava from a volcano". This comment inspired the teacher to use blurred, shaken, and unfocused photos to develop preschoolers' creativity and imagination.

Implementation of the program

The project's implementation occurred in four phases:

1. photo elicitation with preschoolers
2. selection of photos to create stories and record stories via digital media
3. creation of digital narratives using a Movie Maker program
4. collaboration with the parents

Methodology

Photo elicitation with preschoolers

Initially, the teacher selected ten (10) blurred, shaken or unfocused photos (figures 1 & 2). These photos were used as the base material of the photo elicitation with preschoolers. The photo elicitation procedure took place as private, individual discussions, conducted by the teacher with one child at a time, in a quiet area. No child could hear the answers of any other participants. Each child was asked open questions, such as "What do you think this picture shows?" The responses were digitally recorded. Additionally, the teacher assigned a number to correspond with each photograph. Using a simple paper recording protocol, the teacher noted each child's interpretation next to the number representing each photograph.

Some of the characteristic interpretations of the photos were:

- *For figure 1:* Volcano lava, fire of the dragon, thunder, explosion, etc.
- *For figure 2:* Dark night, clouds, smoke of the volcano, a dream, etc.

Figure 1
Volcano lava

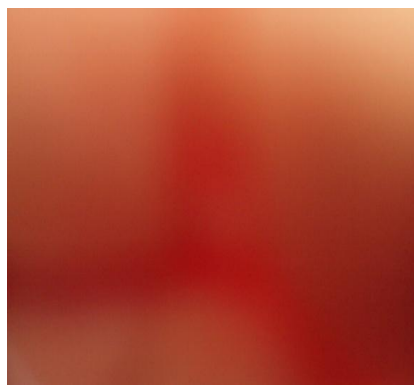
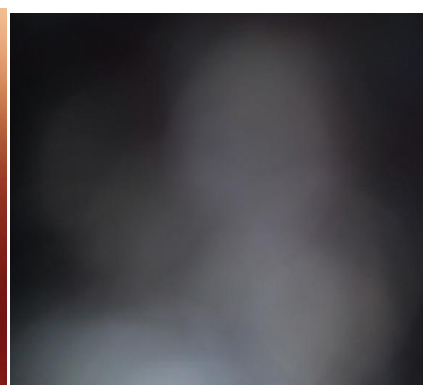


Figure 2
Fuzzy depicted subject



Selection of photos to create photo stories - Recording stories

After the photo elicitation, the researcher asked each child to select five shaken or blurred photos and place them in a line that the child desired (figure 3). The child's task was to create a short story based on those photos and share it orally with the teacher. At the same time, the narration of the story was recorded via a digital voice recorder. Since this procedure was conducted individually with each child, each participant could use the same or other photos, place them in the same or in another order and create a unique story.

Figure 3
Selecting the photos



Create digital narratives using a Movie Maker program

Digital narratives (digital storytelling, digital essays) as a multimodal genre are an innovative aspect of new technologies that can integrate appropriate images, videos and music into to young children's educational programs (Fenty & Anderson, 2016). The photos for creating the story were inserted in the Movie Maker program, along with the audio recording of the story, in the presence of the child narrator (figure 4). After the first presentation of the material on the PC, the child was invited to made remarks about the synchronization of photo and sound (i.e. the door is not here, this is where this white appears). With the teacher's help, the appropriate settings were selected during viewing, so that sound and images could sync up, creating the digital narratives. The result was extracted as a movie format (mp4). The movies were projected to the classroom, and new discussions took place with preschoolers.

Figure 4
Creating stories on the computer

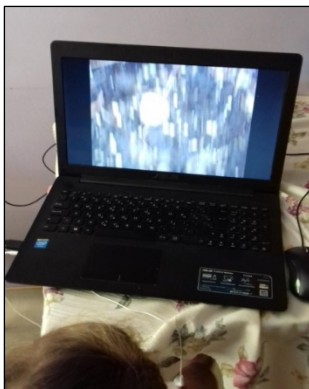
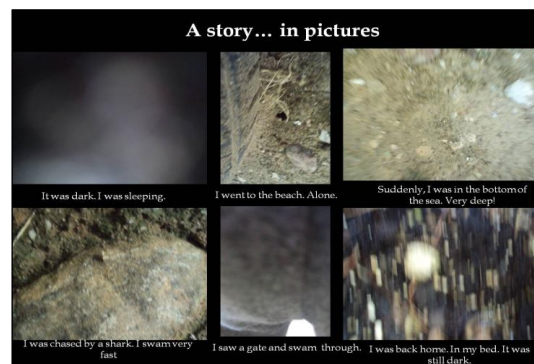


Figure 5
A story in pictures



One of the stories created (figure 5) is the following: *It was dark. I was sleeping. I went to the beach. Alone. Suddenly, I was in the bottom of the sea. Very deep! I was chased by a shark. I swam very fast. I saw a gate and swam through. I was back home. In my bed. It was still dark.*

Collaboration with the parents

The children's enthusiastic participation in the photo elicitation procedure led to the idea to expand part of the project at home. The ten selected "shaken" photos were printed. Children were invited to play a game at home with their parents like, "What is in that photo?" Children, working as investigative journalists, presented the photos to their parents. Along with the photos, the same paper recording protocol the teacher used previously, with a number correspond with each photograph, was given to the parents. Parents wrote down what they thought each photo depicted. No other information about the photos was given, thus,

parents didn't know that children took these photos. The material was returned anonymously, in a closed envelope, in a box placed at the school entrance. The teacher collected the answers of 13 parents and classified them. Some interpretations of the adults were:

- *For picture 1:* The hand of somebody in front of the camera / I cannot tell what it is / It is blood, etc.
- *For picture 2:* It is something black and white / Smoke / Lights very far / Fog, etc.

The parents' answers were compared with the children's responses.

Discussion

After collecting the answers, the researcher conducted content analysis to detect what elements formed children's interpretations of the shaken photos. As the figurative aspects of the depicted objects such as shape, form, and lines were not as clear as depicted on the shaken photos, the crucial factors that affected children and adults' interpretation were the plastic signifiers, such as color and texture. Such elements are by definition *polysemous* which means that they can be interpreted in various ways and connected with multiple meanings by each interpreter. The role of every individual interpreter is crucial as the recognition or the cultural contraction of the meaning is affected by the previous experience, the knowledge, fashion, etc. of each interpreter (Skarpelos, 2019), especially concerning young children with different cognitive, psychological and emotional developmental characteristics than adults. The analysis showed that color was the first element that constructed the meaning for both children and adults. Red, black, and grey were the main colors in the photos. Texture was the second element noticed throughout the answers, as the visual memories of the participants were connected to the shaken photos. For example, the texture of a blurry photo reminded many participants of raindrops on windows (figure 6) or the bottom of the sea (figure 7).

Figure 6

Raindrops on the window

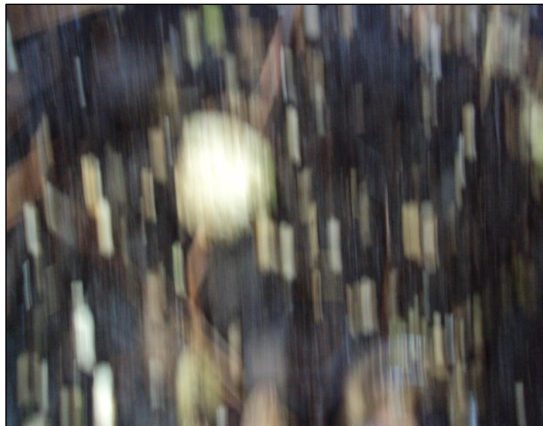


Figure 7

Bottom of the sea



Could we claim that there was a difference between the children's and adults' interpretations? To answer this, we had to take into consideration that children knew that the pictures were taken in the school environment by their peers, while the adults didn't have that information. Having that in mind, we could say that children, even if they knew that the photos depicted something real from their familiar school environment, most of their answers were imaginary. Children referred to imaginary creatures or landscapes that we don't encounter, such as volcanoes, lava, fire of a dragon, explosions, the bottom of the sea, a shark, etc. On the contrary, adults tried to give more logical explanations, such as smoke, lights, red clothes, or they referred to the use of the medium (i.e. a finger in front of the photographic lens). Children were encouraged to express themselves freely. Preschoolers could think beyond the specific and defined and express themselves in a more open and creative way—imagining more than photos captured in reality.

Conclusions

This paper examined the implementation of the "shaken photos" project with preschoolers using blurred photos produced by children. The project's aim was to use "failure" as an opportunity to develop imagination and creativity through the use of ICT. The "failure" to use the medium, in this case the lack of a "successful" photographic capture, in combination with children's comments, inspired the implementation of the project. The emphasis was not on learning the proper use of a digital camera, i.e. skills that are considered essential to the use of ICT, as would be the case in a classical training program. On the contrary, starting from this failure on the use of the ICT medium by preschool children, participants were offered subversive and original stimuli, resulting from the "inappropriate" use of the photographic lens, to experiment and create. Sometimes exclusively with the use of media by children (camera), or in collaboration with the adult researcher (use of digital tape recorder together), and sometimes with the use of media by adults and children's verbal input (computer operation for Movie Maker program), ICT offers children a wealth of possibilities for experimenting and creating simple but personal multimodal texts.

Based on Stafford's definition of visual literacy as "the active reading, interpreting and understanding images and visual media" (2011, p. 1), the "shaken photos" project highlighted the active role of participants to analyze what they see in their own personal way and offer creative interpretations. Children had the opportunity to express themselves creatively, as the undisclosed subject of each photo was an interpretative stimulus. Therefore, the goal was not to detect the one and only correct interpretation, but the personal view of each participant, which resulted in multiple, original interpretations for each of the photos. "Shaken photos," as stimuli open to interpretation, were a challenge for the imagination of the children. They focused on plastic signifiers and provided interpretations distinct from the logical way of viewing and thinking, and developed personal meaning from photographs. Colors, lines, and textures were transformed by children's imaginations and the use of ICT into a "fictional" visual game between the real and the unreal, broadening visual perception and creative thinking. This comes in agreement with Arnheim's conclusion (1966) that visual perception is not a passive procedure of the visual stimulus, but rather an energetic and involving act of the eye and the mind. With the various possibilities it offers today, ICT can contribute to a new active, participatory, playful, creative educational process.

References

- Anning, A., (1999). Learning to draw and draw to learn. *Journal of Art and Design Education*, 21 (3), 197-208.
- Arnheim, R., (1967). *Visual thinking*. Berkeley: University of California Press.
- Britsch, S. (2019). Exploring science visually: Science and photography with pre-kindergarten children. *Journal of Early Childhood Literacy*, 19 (1), 55-81. doi:10.1177/1468798417700704
- Calvin, E. (1994). In search of the viewfinder: A study of a child's perspective. *Visual Sociology*, 9 (1), 27-41. doi: 10.1080/14725869408583729
- Clark, C. D. (1999). The autodriver interview: A photographic viewfinder into children's experience. *Visual Sociology*, 14 (1), 39-50. doi: 10.1080/14725869908583801
- Cope, B., & Kalantzi, M., (2009). "Multiliteracies": New Literacies, New Learning. *Pedagogies: An International Journal*, 4, 164–195. doi: 10.1080/15544800903076044
- Fenty, N., - Anderson, E., (2016). Creating digital narratives: Guideline for early childhood educators. *Childhood Education*, 92 (1), 58-63. doi: 10.1080/00090056.2016.1134243
- Friedman, A. (2016). The three-year-old photographers: Educational and parental mediation as a basis for visual literacy via digital photography in early childhood, *Education's Journal of Media Literacy Education*, 8(1), 15 – 31. Retrieved from <https://digitalcommons.uri.edu/jmle/vol8/iss1/2>.

- Kress, G., & Van Leeuwen, T., (1996). *Reading Images: the grammar of visual design*. New York: Routledge.
- Miles, S. & Homes, A. (2015). *Photography in educational research*. New York: Routledge.
- Orellana, M. F. (1999). Space and place in an Urban Landscape: Learning from children's views of their social worlds. *Visual Sociology*, 14 (1), 73-89. doi: 10.1080/14725869908583803
- Pedagogical Institute. (2011). *Curriculum for Early Childhood Education—Part 1 & 2*, Pedagogical Institute, Athens, available at: <http://ebooks.edu.gr>.
- Pyle, A. (2013). Engaging young children in research through photo elicitation. *Early Child Development and Care*, 183 (11), 1544 –1558. doi.org/10.1080/03004430.2012.733944.
- Schiller, J., & Tillett, B. (2004). Using Digital Images with Young Children: Challenges of Integration. *Early Child Development and Care*, 174 (4), 401–414. doi: 1080/03044303200015344
- Skarpelos, Y. (2019). *The Uncertain Signs [Τα αβέβαια σημεία]*. Athens: Topos. (In Greek).
- Stafford, T. (2011). *Teaching visual literacy in the primary classroom*. USA & Canada: Routledge.
- Wong, K. M. (2020). How do young children learn about photography? *Journal of Education and Human Development*, 9 (1), 103-110. doi: 10.15640/jehd.v9n1a10
- Young, V., - Wright, E. N. (1973). *The tree looked lonely so i took its photo. Visual awareness in children's photography*. Toronto Board of Education (Ontario), Research Department. Retrieved from <http://eric.edu.gov/?id=ED089697>

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