SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI" FACULTY OF EDUCATINAL STUDIES AND THE ARTS

DEPARTMENT OF VISUAL ARTS

Abstract

of a dissertation on theme:

PLAYING FORMS IN THE STUDIES OF VISUAL ARTS IN NON-FORMAL EDUCATION

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For awarding the educational and scientific degree PhD on

professional direction: 1.3. Pedagogy of education in…

(Methodology of Fine Art Education)

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Sofia 2023

Contents

This study comprises a total of 186 pages, divided thematically into an introduction, three chapters and a conclusion. 153 pages of the total volume contain the text – an exposition and 33 pages – an Application, in which the Application has a total of 12 figures, a total of 8 tables, 4 field protocols in the form of tables, 21 photographs of the process carried out with the working groups, 12 photographs of the narrative interview, 2 lists. The numbering of the figures and tables included in the annex correspond to those in the main text.

The necessity of the present work is described in the introduction, after which the following are stated: scientific problem, topicality, object and subject of the research, as well as the hypothesis. In the first chapter a theoretical study of literature related to the topic is made. In the second chapter, the educational module, model design and preliminary study are outlined. The third chapter presents the learning module, its implementation and the analysis on them. In the final chapter, the results of the experiments are summarized and the hypothesis is proved. Conclusions are included and the potential for development is described.

Introduction

Need for the specific study

Contemporary society is increasingly informed and communicating through digital technologies, which communicate through images and text. This is a prerequisite for the development of a new medium that is the totality of all visual elements involved in everyday life. In the last 20 years, there has been a significant exchange of visual information, which has become increasingly concentrated and dynamic. This change in communication imposes new trends in the handling of images, and consequently in their perception. Society is beginning to deal with images through play. Play is becoming increasingly present in everyday life, even during everyday activities such as shopping. Games play an important role in modern educational methodologies, and in recent years they have also become an educational tool. Children's social and educational environment is more or less influenced by and linked to digital technical devices, often used through game platforms and/or applications. Changes in the toolbox lead to an imperative update of approaches and methods in the educational environment, it is relevant to maintain interest and motivation in learners.

Visual literacy is necessary for the appreciation and understanding of contemporary art, but unfortunately its necessity is often underestimated. This situation points to the need to create an educational foundation that provides knowledge that builds visual and practical literacy tied to contemporary visual art forms. Visual arts education requires a creative atmosphere and stimulating direction for work. Even in the absence of this, play forms can shift the focus to a relevant environment for communication and creative activity that is relevant to the topics that excite those involved or to new curious and unfamiliar fields of the field. This specificity of the game forms suggests that they can be used as an up-to-date, contemporary method, with an expected good educational result. They also provide a basis for a varied individual approach and can enrich the teaching of visual arts in non-formal education.

Scientific problem, topicality, object and subject of the research

The topic of this paper deals with the application of a system of educational games in the process of visual arts education in non-formal education. This process should be relevant and

accessible, oriented to the new communicative culture, using well-established play techniques traditionally embedded in the human psyche. The new communicative culture refers to the change of sensory modality that has been observed in recent years, namely, the visual perception of information rather than tactile or other senses. The focus of the study is – how to develop skills and knowledge linked to sensory perceptions through play forms, through which visual literacy can be developed.

Object and subject of the study

Game forms in the teaching of visual arts in non-formal education as a working tool to improve knowledge and tactile skills in the field to create a lasting base of perceptions, skills, appreciation focused in the field of visual culture.

The object of the research is the play forms in the teaching of visual arts in non-formal education.

The object of the research is to apply a working game model that is relevant to current issues and to produce qualitative results that relate to or enhance visual cognition contemporary visual art forms.

Aims and objectives

The aim of the research was to create a game module to be implemented in an experimental workshop. The research aims to establish the advantage of game methods as an educational approach that produces higher and qualitative results in visual arts education. The focus of the study is on contemporary forms of expression in the visual arts.

Objectives (theoretical, practical):

- Exploring play in socio-cultural terms;
- Exploring play methods in visual arts education;
- Exploring the current state of play forms in visual arts education;
- Creating a modular system for the application of play forms in informal settings;
- System testing and implementation;

Tasks related to the theoretical study:

- To study and analyze, in theoretical terms, the game and game forms;
- To explore play-based methods in visual arts education;
- To analyze the theoretical and practical aspects of play forms in non-formal education;
- To make an analytical selection of authors and practical tasks to be included in the model for application in the experimental part;
- To develop a structure of the game systems to be implemented, to specify the focus of the work;

Tasks related to the experimental part:

- To develop a game system for visual content presentation;
- To prepare technical and graphic materials for work with children;
- To conduct a series of practical experiments in the form of a workshop;
- To critically analyse the success rate during the course of the experiment;
- To analyse the results;
- To draw conclusions.

Hypothesis

If a specific system of lessons based on play approaches and methods is applied in the non-formal education in visual arts, it would lead to qualitative results in terms of improving artistic skills, experience and interest in the field of contemporary forms of visual arts.

Studied contingent

Game forms are a method through which skills and knowledge in different educational areas are successfully increased and improved. Through a system based on them, preschool and early school-age children can significantly improve their visual literacy in the area of modern forms. The game is a means through which information reaches the target group easily and enjoyably. The age range selected for the study was tailored to the interest in games of the specific age group. The research is aimed at children aged 6-10 years, with no prior theoretical and practical background in contemporary visual forms, but with an interest in visual art: with an interest in

the field of visual arts; with no theoretical background – contemporary art; with no practical skills in the field of contemporary visual forms;

The present pedagogical research is qualitative. The selection of qualitative research approaches was appropriate to the age of the participants, direct observation.

Methods and procedures for collecting information for the specific study are:

Narrative interview – during a narrative interview, stories, events, actions experienced or observed by the interviewees can be told. Most often, these are personal stories of the persons interviewed, details from them or their personal perspective. They can be professionally oriented, or the respondent's participation in social events or in certain processes.

Observation – observation is a method by which general empirical information is gathered to serve for analysis, evaluation and interpretation of the overall development in the experiment, the data gathered serves to confirm or not, the hypothesis and theories developed.

Group discussion – the discussion helps to collect verbal data that gives clarity on the input and output of the participants in the experiment and also how successful the implemented system is. The interviewer maintains a dialogue and asks questions to gather information about the participants' evaluation and how they perceive the given activities and the proposed materials.

Visual test – cards, which in the form of a sorting game, are applied as input and output.

The material evidence of the experiment is photographs of the activities, notes.

Criteria for analysis and evaluation of the results obtained:

The analysis of the results of the conducted, through qualitative research methodology are systematized, arranged – documentation of the methods used, communicative validation, reasoned interpretation, conclusions from the pedagogical experiment.

A pedagogical experiment was conducted, in an informal setting, to test the success of the designed pedagogical module. The system of this developed pedagogical idea is as follows:

- Theoretical study of literature related to the topic.

● Narrative interview

● Research and selection of contemporary visual works related to the selected material/medium of expression

● Design of the pedagogical experiment:

- Selection of materials tailored to the research contingent;
- Development of game forms related to each state of the selected focus material, development of graphic and video materials for work in the practical part;
- Workshop implementation Water and data collection versus methods.

● Analysis of collected data. Conclusions.

CHAPTER 1. Play – The Process from Organic Activity to Gamification

1.1. The game in cultural, sociological historical aspect

Play is an activity that is performed for the purpose of entertainment, amusement or learning. It can be physical, such as a sport or outdoor game, or virtual, such as a video game or online game. Games can be played alone or in a group and can have rules, goals and rewards. They are part of the culture of many societies and are an important way of social interaction and entertainment.

The theory of art and culture as play began to develop in the 18th-19th centuries, it was among the theoretical pursuits of Kant and Schiller. It laid the foundation for the idea of a new construct that considered the relationships between beauty, imagination, play, culture, and the dependencies between them. The play of reason and imagination, pleasure and the relation between them is at the heart of Kant's philosophy. Schiller goes even further into the analysis of play. He draws a parallel with the nature of man and play, which, according to him, is dual. Expressed in material and spiritual, physical and emotional selves, man expresses this nature through play.

The Dutch cultural theorist Johan Huizinha argues that games are a primary condition for the development of human cultures. Huisinha sees gaming as something that exists before culture –

“older than culture, since culture, however ill-defined, always presupposes human society”. For Huizinga, games are an important element that provides the basis for the emergence of more complex human activities such as language, law, war, philosophy, and art. He argues that games are something fundamental and make any culture function as a game.

Games have their own evolutionary path, which is determined by the context of time, geography and migratory processes; to examine these processes in detail, we turn back to the work of Edward Tyler, who explored the origins, migration and history of games in the late 19th century. At the heart of one of the examples he gives lies the ethnological argument that man-made games present in two different areas must have travelled towards each other or set out from a common main point. This argument does not apply to all games. Some are so natural and organic that they can be assumed to have been self-generated, such as ball throwing, wrestling, and children's role-playing games that mimic adult life. Not only complex games like chess and tennis, but sacred, sporting and entertaining forms are well-defined formations whose spread can be traced on the map.

The game has two forms: physical and intellectual, they have the following features: limited in time and space, aesthetic, voluntary. It has a certain order, purpose, rules, it is accompanied by a sense of sublimity, tension and playful mood. Play is a means of relaxation, entertainment, getting to know each other, bonding, and it teaches sociability. It can be perceived as a cultural act of creativity, created according to its own laws, and as such it fulfils a number of functions – entertaining, communicative, relaxing, socialising, pedagogical, etc. Play has a number of functions and advantages that go beyond entertainment. It can have a communicative role by encouraging interaction and communication between people, a relaxing role by helping people to relax, a socialising role by encouraging cooperation and teamwork, and a pedagogical role as it can be used in learning. Play is abstract and concrete at the same time.

1.1.2. The essence of the game, the essence of the artwork, parallel

Apart from its geographical, migratory, physical, psychological manifestations, the game also has substantive manifestations. Gadamer distances himself from the significance that Kant and Schiller invest in and is fundamental to any interpretation in contemporary aesthetics and anthropology. 'The experience of the art of play' (ibid.: 114) is not the behaviour or condition of

the artist or the observer of the work. Gadamer excludes subjectivity and its freedom in driving processes, previously included in the interpretation of the concept of play. He brings to the fore the idea of the "being mode of the artwork itself". Play is a way of behaving towards subjectivity, the behaviour of the player differs from his attitude. The attitude of the player to play is as to an event of a frivolous nature, but the behaviour in play has a distinct seriousness, in it the purposive connections beyond the play process disappear. The player immerses himself in the world of the game fully aware that the game is only a game. The existential nature of play does not allow those involved to relate to it as an object. In opposition to the game and the artwork, which nevertheless share common features and essence, the subject of experience in art is the artwork..." the artwork is not an object that opposes the subject existing for itself" (ibid: 115). What is new with Gadamer is that the game has an entity of its own that has no relation to the players or their representations just as the artwork has an existence of its own independent of the author or audience.

1.1.3. The Game as a Structure of the Work of Art

We find social construction as the basis for contemporary work on a large scale in the work of Josef Beuys, who makes thought structures or social sculptures. Beuys' work requires active participation on the part of the viewer, not passive contemplation. Often the details are simply visual cues that lead to both an emotional response and meaning-making. Through reports, interviews and conferences, Boyce transforms his work into didactic installation. According to Boyce's expanded notion of sculpture and art: speech and conversations with people are themselves a kind of "plastic art"; they also shape people, turning them into living sculptural works. By using the language of contemporary art, Beuys gives new expression to themes that actually move humanity constantly: mythology, religion, science, art, politics. "The work of art must enter into the personality and the personality must give subjectivity to the work" (Beuys 1983). Or the person must enter into the work as well as the work entering into him. Understanding the work does not stop at merely interpreting it intellectually, but by experiencing it from within, through mental structures that pass through intuition, imagination and inspiration. Boyce's work provides insight into the essential expression and understanding of the work of art as a subject with its own being, independent of audience and author, existing for both parties, significant for society as a whole.

1.2. Gamification

A relatively new field called gamification looks at games in another form. Gamification is about learning from games, not just learning about the games themselves, but exploring the nature of games and what makes them successful and engaging, what games can do and why they have power. Gamification is the use of game elements and game design techniques in non-game situations. This definition has three parts: game elements, game design techniques, non-game contexts. Visual experiences are constructed artistically, systematically, and their primary purpose is to be fun. There is a great deal of engineering, algorithms and technology in them, but also an artistic experience in game design involving thinking through problems in a particular way. The non-game context is everything that is not a game. When a game is played it's for fun, if the reasons are other, for example tied to learning or work, then there are goals - that's the non-game context. Gamification is a set of psychology, design, strategy, technology - techniques that designers use in games and that can be used in non-game situations to solve problems in business, education, healthcare and other fields. This technique is called gamification.

1.2.1. The main links, similarities and relationships between play, art and gamification.

Contemporary art often seeks the audience as a co-author, which technology helps to do; through its development, viewers can more easily make the transition between real and digital. Neil Mendoza's work is a contemporary example of gamification in art. Play and art in his works, intrigue the viewer in an equal way. Mendoza explores the absurd and the playful, combining sculpture, electronics and software to bring inanimate objects and spaces to life. Mendoza holds the audience's attention, keeping them in suspense. “When the audience doesn't know what's next, they study the objects. People are good at learning systems and how they work.”[1] The viewer's interaction with the work is part of it. Thus emotional engagement is tied to playfulness. The being of the viewer and their mechanical manipulation becomes, albeit temporarily, part of the existence of the work. Speaking of his work, Robotic Voice Activated Word Kicking Machine, Neil Mendoza places the audience in a game world constructed of

[1] Trans. Alexandrova M., Interview, Mendoza N. https://killscreen.com/neil-mendoza/ [accessed 01.12.20]

physical, audio, digital, and mechanical components linked aesthetically and conceptually in a contemporary artwork.

The development of technology has led to the emergence of an interesting hybrid - the so-called art games "*Molleindustria"* **art video games** with a political, consumerist, provocative, critical orientation related to social issues. The games that the platform's team produces are a protest against the mainstream industry related to game production. "Molleindustria" creates critical and industrial games varied societal themes that challenge thinking and entertain at the same time. The company set out to show that games can be used as an expressive medium that provokes players to ponder complex questions and seek answers in the most diverse forms of art and culture possible.

There are no casual games among *Molleindustria*'s art games. Each of them addresses a topical issue and brings the audience/players into the world of the issue, using the gameplay and motivation that people engage with as participants in a game, so the issues reach a wide audience in an accessible, relevant and engaging way, connecting the content with the participant as subject to subject. Art games carry the charge of play and the concept of contemporary artwork. They are an aggregate, complex, amorphojonusly structured and mutable image, adapting to the issues and aesthetics or antiesthetics of the day.

1.2.2. Gamification of the visual image, after Mirzoev

Culture is a dimension of human existence, a collection of components, a whole of many commonalities. It has historical, social, aesthetic significance and content. Its characteristics change according to geographical and temporal boundaries, circumstances and understandings, making the derivation of a single definition a controversial process. As early as the 18th century, the philosophical idea of a relationship between culture, art and play began to take shape. If for Hoising culture has the character of play and civilization is born in play, for Gadamer play has an existence of its own, inherent also in the work of art, and their own existence is independent of the audience, the environment and the participants.

Visual communication in modern everyday life increasingly refers to mechanised processes largely controlled by algorithms and artificial intelligence. They present selected visual material

according to individual interests, but also displace potentially valuable images for the audience, at the expense of popular templates. Also, the overwhelming flow of information reduces the viewer's ability to gain insight into the content of each proposed visual object.

1.2.3. “Visual turn”

The shift of focus from speech to image, called the visual turn or “visual turn”, according to Mirzoev, even requires a revision and rewriting of the historical analyses and justifications of modernism and modernity in order to explain the transition from primarily linguistic to visual communication: “This globalization of the visual, in general, requires new means of interpretation. At the same time, this transformation of the postmodern present also requires a rewriting of historical explanations of modernism and modernity in order to explain the 'visual turn'” (Mirzoev 2015: 3). Postmodern culture mainly handles visual means as a consequence of their use in the preceding time period, therefore it can be said that contemporary culture is visual. The visual finds a place in every area of everyday life and is a constant stimulator that focuses and engages users of various information media. Its most important characteristic is that it can instantly touch the emotionality of the audience. The image does not just provide direct information at the moment of contemplation, but also brings with it a different kind of perception, impression and attitude (Ibid: 7).

“Virtual reality has different names and can be accessed by a wide range of machines. By definition, virtuality is an image or space that is not real, but appears to be. These days this includes cyberspace, the internet, the telephone, television and virtual reality. Perhaps one of the most familiar definitions of virtual reality is the space that occurs when you are on the phone: not exactly where you happen to be sitting, nor wherever the other person happens to be, but somewhere in between” (Mirzoev 1999: 91). The visual environment is the totality of all visual elements that are part of a person's everyday life. This includes everything we see around us, from advertisements and films to social media and websites

1.2.4. Interactivity

To date, computer-generated environments offer interactive virtuality. It is increasingly difficult to distinguish between reality and virtuality, as the two domains are not separated by a

clear boundary. Contemporary cultural practice is situated in a complex terrain of interaction between the global and the local that is both real and virtual. As technology advances and virtual reality develops, the image begins to lose its essence and a need for change or adaptation emerges. The relationship between the audience and the visual is subject to more and more frequent gamification, observing the new visual is not the same as understanding, nor as interaction. Interactive environments do not simply contain a hybrid information in themselves, they can recreate models from reality, from the virtual world or a set of different digital and physical components from virtual reality.

1.3. Non-formal education. Workshop – definition, application in the field of the visual arts.

1.3.1. The focus of the developed educational module is on the material/expressive medium of water

Water is a widely known image that carries a lot of symbolism, it is a conceptual and pictorial material in visual arts. Although all its forms and aggregate states are enjoyed by many contemporary artists, it is not included in this aspect in the formal educational curriculum. The purpose of this paper is to examine the success of play forms as a method of teaching and learning different forms in contemporary visual arts. For the realization of the experimental part, the author of this study considers the **tool Water**, a familiar and accessible material through which to convey visual and tactile information.

Water as abstraction

In his book[2] , James Linton[3] takes an in-depth look at the image and significance of water, focusing on the fundamental shift in man's relationship with it. Already in the summary of his book, he immerses the reader in the depth of the image he examines: 'Contemporary water, as I call it, is an abstraction, it is pervasive in all discursive and material practices that have a concealing effect, concerning water's essential social nature' (Linton 2006: II). Water is studied and debated by many sciences - ecology, hydrology, climatology, oceanology and others, also by different cultural, social and religious concepts. It must be seen not only as quantifiable, but also as a historical process in which it becomes, as it is, in relation to other things in space and time,

[2] "What water is: The history of a modern abstraction", rev. Alexandrova M.
[3] Researcher, University of Limoges, France

namely abstraction. In modern times, all responsibility for maintaining relations with water is left solely to experts.

Ecology

Water is a material whose aggregate states are conducive to building conceptual visual forms. The behavior and symbolic content of water is related to nature, in human conceptions. Water can be a link between artist - nature - audience.

Many artists address environmental issues through their art. One of the first is Nicolás García Uriburu, he directs the audience to water pollution. Nicolás García Uriburu is a major referent of land art and at the same time a pioneer of environmental consciousness, which he formulated in the language of artistic action" (Dupra 2018: 1), explains Andres Dupra[4] . At the 1968 Venice Biennale, he realized an action of pouring fluorescein[5] into the waters of the "Grand canal". The artist's aim was to draw attention to the relationship between civilization and nature, promoting environmental awareness as a critical part of culture and raising questions about the art system. "Painting the Water of the Venetian Canals during the 1968 Biennale offered a double reading with a single gesture: 'By changing its colour, Garcia Uriburu condemns human activity that disrupts nature and turns it into useless art. On the other hand, the destructive nature of the action, which was carried out in secret, without the protection of institutions, called into question the art system as such, in keeping with the spirit of the times" (Dupra 2018: 1), says André Dupra. Subsequently, he carried out several other similar actions in different cities.

Water as a definition

The definition of any object, subject or term is most often looked up in a dictionary, the question of whether concepts have the same definition when placed in the context of art is part of Joseph Kosuth's search[6] . He created a series called Titled (Art as Idea as Idea) (1966-68)[7] , containing dictionary definitions, the emphasis of the series is to give an image of the idea, to emphasize that it is not the object but the concept that is important. Part of the work on this series

[4] https://universes.art/en/magazine/articles/2018/garcia-uriburu-venice
[5] pigment
[6] Artist and theorist working in the field of conceptual forms. Context is always part of his work.
[7] Published in 1970.

is the work “Notebook on water” – white prints on black ground show dictionary definitions, concerning water. Ice, water, steam, oxygen, hydrogen, and snow are accompanied by a handwritten introductory page (by Kossuth); statements by Ad Reinhardt and Donald Judd; a map of the world; and a photograph of a radiator. “Notebook on water” is a work framed by investigation, an example of Kosuth's intention to create objects that lead the viewer from perception to idea. Only a few aspects are commented upon, which allow us to grasp the mechanism of the disappearance of form in favour of information. Kosuth uses language as a pictorial device to outline the process of insight into the idea of abstraction “Water”. In the context of the study, “Notebook on water” is a definitive example of a purely conceptual use of water without it being used in kind.

Liquid aggregate state of water as a material in a visual work

Yayoi Kusama is a Japanese artist who creates installation spaces, often covered in circles or dots, sometimes incorporating other volumes, again covered in circles. They are a key part of her visual language, which can also be seen in many of the installations, which are rooms with infinite mirrors. One of these, Fireflies on the Water, a setting in which Kusama, immerses the viewer's feet in a calm water surface that moves fluidly with the movements of the observer. A multitude of lights shimmer above the surface, Kusama's popular dots in this case have become “fireflies” that reflect and glow in the mirrors and the plane of the peculiar water mirror. Infinity is a theme that strongly excites Kusama, it refers to an unlimited time, space, distance that cannot be calculated, like the constant transformation and conversion of water from one form to another and the impossibility to quantify it.

Solid aggregate state of water as a material in a visual work

Olafur Eliasson is an artist who works with natural elements in sculptural or installation form. He uses light, water, temperature, etc. He explores the relationship between science and art and often addresses themes related to climate change. The Ice Watch installation is a collaboration between Eliasson and geologist Minnick Rosing. Through this work, they draw attention to the melting of Arctic ice. Twelve large blocks of ice[8] , which are positioned in a public place in the shape of a clock, provide the public with a direct and tangible experience of

[8] From Greenland

real climate events taking place. “Ice Watch” has been installed in three locations Copenhagen (2014), Paris (2015), London (2018 - 2019). The concept of this work is constructed entirely on the natural element, which impacts clearly and strongly on the audience. The language of the pictorial material is ephemeral in nature, yet dynamic, creating the impression of a major event that leaves no material result, but marks an issue that can be personally seen, felt, tasted, embraced and smelled.

Gaseous state of water as a material in a visual work

“Something Something National Conversation” (2016) is an installation by Michelle Chan featuring a water feature, lights and mechanisms (2013, Toronto). The dynamism in the work comes from two clouds of water vapour emerging from opposite gallery walls and floating towards each other. They collide and dissipate into nothingness, a phenomenon that repeats itself constantly. “The work of art is both a spectacle and a complex exercise in futility…” the artist says of his installation; it is part of the solo exhibition Art and Inactivity. The work explores the liminal zone between the material and the immaterial, between legibility and illegibility, and between content and form. “Something Something National Conversation is a visual conversation about mediation. About how communication technologies, change and strain the sense of understanding” (Chan: 2016).

Snow

Simon Beck is a “snow” artist and former cartographer. He creates visual works on snow. These are large-scale, geometric “drawings” by the artist cover large areas and take up to 12 hours to complete, requiring walking 20 to 30 miles in the snow on snowshoes. Consequently, his creations are both artistic and physical performances, creations shaped by challenging environmental conditions. In his practice, Beck uses the repetition of geometric shapes whose reliefs create areas of varying levels of illumination. Snow art is temporary and relies primarily on photography to be captured. Here the question arises as to whether the photographs are part of his works or are separate documentary series. Simon Beck's work has the ephemerality of most of the visual forms listed in the study. This transience carries a specific charge and impact on the audience.

Clouds

Berndnout Smilde has mastered the art of creating clouds indoors. His weather manipulations called "Nimbus"[9] offer a different reading of our surrounding reality and environment. They are a scale model of a natural phenomenon that is man-made. Smilde has been working for years on his technology, but still needs preparations and the right conditions to create his clouds. A combination of a fog machine, low temperature, humidity, and lighting are part of the circumstances of cloud formation. The locations in which the artist situates the clouds play an important role in their interpretation. In a church, a museum, or a psychiatric hospital, they carry different semantic content. Smilde's Nimbus series represent a brief transitional moment from presence, to absence in a particular place. Once realised, the clouds last only a few moments and then disappear. The photograph functions as a document of something that happened in a particular place and is now gone.

Water-related complex implementations

The installation Room for London (2012) by artist Fiona Banner and practitioner David Kohn[10] is a temporary installation, a one-bedroom, boat-shaped apartment mounted on the roof of the Queen Elizabeth Hall[11] . Up to two people can sleep in this boat and observe London from an unusual location with panoramic views of the river and city. Inspiration for the installation comes from the novella Heart of Darkness, which is set in a boat on the River Thames. The apartment, of sorts, is constructed in the manner of a 19th century river boat.

During her time in the Room for London installation, Ronnie Horn[12] wrote her monologue Saying water, which is a text-based sculpture constructed from her associations with water. She asks questions and provides unexpected answers that inform emotion about the meaning structure and the wealth of individual perceptions that man and society invest in the irreplaceable

[9] Rain cloud
[10] Practice founded in 2007, focusing on architecture, education, arts and residency programs
[11] Queen Elizabeth Hall, Southbank Centre London
[12] American visual artist

liquid. This text-based sculpture gives a reading on the emotional essence of perceptions and places the subject water in a different context, analyzing it, through impact[13] .

CHAPTER 2. Play in an educational context. Play and art. Play forms in non-formal visual arts education. The derivation of an educational module.

2.1. The game in an educational context

Play brings benefits in the field of education and learning and as early as the late 18th century research began to show the link between education and play. In the early 20th century, George E. Johnson wrote "Education By Plays and Games" to "help promote a wider and higher appreciation of play and its value in education, to add in some measure to the essence of children's happiness in the world" (Johnson 1907: 12). Johnson spent a year collecting nearly a thousand of the most widespread games and pastimes, then sifted out the most significant ones he found.

Johnson cautions that "Fun and play should rarely be dictated; they should often be suggested, sometimes taught by the parent and teacher, but it is largely the environment that we must place the pressure of our efforts upon." Part of that environment is knowing the developmentally appropriate activities for the developing child, so that even though "play involves the hardest work." Johnson believed that "evolution, child learning, and play are inextricably interwoven" (Johnson 1907: 10). Thus the child begins with the development of control of his body, then begins to control his hands and feet, and only then begins to coordinate his fingers. Exploring play in relation to instinct and work, Johnson states that children's play impulses "have an important **part to play, in the formation of habits and permanent interests**."

2.1.1. Play, art and education

Ryan Patton**[14]** , looks at games in the historical and cultural aspects of arts education. He begins with the fact that the use of games as a means of making art is most evident in the

[13] Roni Horn, "Saying water", trans. Alexandrova M. Horn R. Saying water (2012). Louisianachannel (2013).:https://channel.louisiana.dk/video/roni-horn-saying-water#:~:text=%E2%80%9CWhen%20you%20talk%20of%20the,%20and%20importantly%2C%20water%20is%20sexy. [accessed 10.09.2021].

methodologies of Bauhaus, Fluxus and Surrealism (Patton 2014: 246), he also notes that games became a starting point in the social activism of the avant-garde. He links changes in games to socio-cultural changes, politics and states that "Art (education) imitates life/games" (Patton 2014: 247), applying specific historical examples in his justification. He argues that games are increasingly finding applications in education, particularly in the context of arts education. Recent research shows that computer simulations and video games have become the most popular form of media in the United States. Simulations and games are being used as a tool for arts education and are providing new opportunities for learning and creativity. Patton believes that games are considered entertainment units that have no educational value, while art continues to be considered an intellectual activity. have incorporated forms of art making, games, and structured play as research methods in their educational practice. However, Patton says that we have examples of the logical use and connection of play to art and education in, for example, Montessori, Froebel, Dewey and others (Patton 2014: 250).

2.1.3. Non-formal education and play

Non-formal education differs from formal education, which is taught and learned in educational institutions such as schools and universities. Non-formal education involves self-education and learning processes that are outside the formal education system but can lead to the acquisition of knowledge and skills.

Ken Robinson presents (Ken Robinson[15] TED Lecture 2006) a thesis on creating an educational system that nurtures creativity. He gives a different view of the current education system and comments on its problems, which he identifies through his personal experience. He comments explicitly on the wrongness of some underlying attitudes in standard education systems and gives specific names to these problems. He brings up the discussion of the importance of creativity, especially in the child/school age years, because they have the inherent ability to adapt to change, to use opportunities in creative and inventive ways. He also speaks of

[14] Ryan Patton is a professor at Virginia Commonwealth University, his research focuses on games as art material, physical computing devices and software, socially engaged art practices, and the history of art education.

[15] British author, speaker and international advisor on arts education. Sir Ken Robinson works with governments, education systems, international agencies, global corporations and some of the world's leading cultural organisations to unlock the creative energy of individuals and organisations. He leads national and international creative and cultural education projects in the UK, Europe, Asia and the USA.

the marginalisation of 'creative' education, a phenomenon that is observed both globally and in Bulgaria. In the book You your child and school (Robinson 2018:14) Robinson, cites a study by Bob Morrison which confirms the thesis of hierarchy in subjects, two out of three teachers say it is easier to get resources and technology for subjects in which students can be tested.

2.1.4. Play forms in non-formal education

Education, like play, is a process in which new knowledge, skills, habits, and beliefs are acquired. It is divided in three directions formal, informal and aformal. For the purpose of this study, we will focus only on the first two forms. The formal is strictly and clearly regulated, involves a chronologically organised system from pre-school to university and is part of the public sector, guided by state regulations and recommendations. “The educational institutions that are part of it have a certain hierarchy, a system of evaluation and are subject to specific laws of the Ministry of Education and Science” (Stoyanova 2020: 57).

In non-formal education, practice plays a leading role, offering an effective way of learning by doing and experiencing rather than just listening and watching. Any setting can be adapted to meet the needs of non-formal education, and educational content can be presented in a variety of ways, such as applied, recreational, functional and play-based. A variety of elements can be included in the learning process: natural, specially designed, improvised and materials (Nikolaeva 2020: 61). Non-formal education forms independent methods or systems that are not subordinate to those in formal education.

2.1.5 Workshops as an organizational form and a basic tool in non-formal education

Workshop – definition and use as a methodological system.

Workshop translates as workshop, workshop, seminar. Workshop is used as a methodological system for seeking, exploring and identifying solutions to a theoretical or practical problem. It is used for training both children and adults. It has been successfully applied in all professional fields as well as in pedagogy. teachers in order to make them aware and train them based on new practices and innovations in education. A workshop is an educational form used to train a group of people on a specific topic and/or a specific skill. It can be conducted in a variety of formats - online, in person, in classrooms or outdoors. One of the biggest advantages of a workshop is that it can be interactive and allows participants to actively engage in the learning process. This

means that they can ask questions, share opinions and participate in hands-on exercises that help them better learn the material.

According to Dobrin Atanasov[16] , the position of the workshop in pedagogical theory can be defined as a form of training that uses different methods and techniques to educate participants. It is a free form of pedagogical work that can be applied in different fields such as art, sports, new technologies, ecology, etc. It is important to note that, according to him, the workshop is a more complex process of interaction, between the participants themselves, between the participants and the leader, i.e. it a format that is not only educational "At the same time, however, the workshop should not be perceived only as a form of training, but also as a form of collaborative work in a particular field" (Atanasov 2010: 140). According to Atanasov, a workshop is not only a pedagogical activity, it is a process of collaborative work, where the end result/product is not so important, but the process itself. This is also the **main link of the workshop with the informal, namely the experience that accumulates in the trainee**.

Different ways of presenting additional visual, practical or tactile information are used to improve perception, retention, reduce stress, increase motivation and acquire practical skills. Some examples of such approaches include games aimed at memorising information, or, to reduce stress and facilitate learning, the use of specific tools to acquire skills and experience. The choice of methods is specific when it comes to the arts workshop "It can be said that the arts workshop has its own separate 'portfolio' in the non-formal education system. The reasons could be sought in the wide practice of using the artistic sphere in its many forms, as a tool and mediator for solving various social and personal problems that have no direct relation to the sphere itself" (Atanasov 2010: 141).

2.1.6. The game in an educational context

Bogost explores historical and contemporary issues related to games, also games as process and as paradox. He makes arguments around the fundamentality of play and critiques the state of current educational practice, in particular the tendency to teach either specific knowledge out of context or rules and principles presented in isolation from the general. "Educational games

[16] Assoc. Prof. Dr. Dobrin Atanasov lecturer at the Department of Visual Arts of the Faculty of Education Sciences and Arts.

translate existing pedagogical goals into the form of video games..."(Bogost 2007: 57). Ian Bogost[17] argues that some topics are more relevant to contemporary aesthetic conversation than ever before, including Kant, Schiller and Derrida, and that these topics can be related to the use of games. Bogost brings together themes from philosophy, anthropology, and the history of technology in his narrative and interweaves it with professional and personal stories, many of them ambiguous.

Ian Bogost, somewhat echoing Johan Huizinga, argues that everyone's life is rich in the basic materials for what Bogost describes as "playgrounds"[18] . These playgrounds enable humans to act in new ways, much like children. They are examples, therefore, of how they manage to have fun, in the most ordinary situations, by turning them into play. Bogost believes that creating a "playground" around some area of ordinary activities, even the most boring everyday situations.

2.2 Methodological characteristics of the study

According to the classification in Methodology and Methods of Educational Research[19] , types of educational research are based on different principles and requirements. Based on the knowledge of science they are:

In the 1960s, a new field of research began to emerge, with its own methods and models, called **Qualitative Research Methodology**. According to the Methodology and Methods of Pedagogical Research, **"qualitative"** pedagogical research is "aimed at phenomena, processes, objects, and persons that are not metrical in nature" (Bizhkov: 1999 121). **Qualitative methodology** uses strategies such as participant observation, focused interview, fieldwork, etc. This way the researcher receives the information directly and can make a much more specific and accurate analysis. The researcher is on the ground and takes changes into account as they happen. In qualitative research, the focus is on the overall coverage of the phenomena, and "previously formulated theories, hypotheses, and expectations are tested in their overall interrelationship under natural conditions" (Ibid 124). The characteristics listed in this classification lead to the finding that this research is **qualitative in nature.** The approaches

[17] Writer, game designer, professor of interactive computing at Georgia Institute of Technology, Atlanta
[18] "Magical circles"
[19] Bizhkov, Krajewski, 1999

chosen allow the researcher to get as close as possible to the persons, events, and phenomena being studied – the **methods and procedures for gathering information for this particular study are: narrative interview**, **observation, group discussion, and visual test.** The material evidence of the conducted experiment is photographs of the realized activities, notes and/or videos.

Criteria for analysis and evaluation of the results obtained:

The analysis of the results of the conducted qualitative research methodology are systematized, arranged, graphically shaped - **documentation of the methods used, communicative validation, argumented interpretation, conclusions** (Byzhkov, Kraevski 1999: 134-136). The documentation is done personally by the researcher, so he can directly observe the processes and objectively assess their effectiveness and reliability.

A pedagogical experiment was conducted, in an informal setting, to test the success of the designed pedagogical module. The system of this developed pedagogical idea is as follows:

- Theoretical study of literature related to the topic;
- Narrative interview;
- Study and selection of contemporary visual works related to the selected material/ medium of expression;
- Design of the pedagogical experiment;
- Selection of materials tailored to the research contingent;
- Development of game forms related to each state of the selected focus material, development of graphic and video materials for work in the practical part;
- Workshop Implementation Water and Data Collection;
- Analysis of collected data. Drawing conclusions.

Data in qualitative pedagogical research are in the form of descriptions of circumstances, situations, observations of the researcher, the methods listed above are part of the possible for this type of research work. They are selected according to the age and training of the research contingent, for maximum specificity of the data.

Contingent

Game forms are a method through which skills and knowledge in different educational areas are successfully increased and improved. Through a system based on them, preschool and early school-age children can significantly improve their visual literacy in the area of modern forms. The game is a means through which information reaches the target group easily and enjoyably. The age range selected for the study was tailored to the interest in games of the specific age group. The research is aimed at children aged 6-10 years, without prior theoretical and practical training in the field of contemporary visual forms, but with an interest in fine arts.

2.3. Preliminary studies. Game forms with hand materials, adaptation and synchronization to existing works of contemporary visual art

Part of this study included data and recordings of two narrative interviews of individuals over the age of 70, to establish the influence of play, play forms and the toys they used as children. One person was heavily influenced by play and even kept many of the games, toys they made as a child, keeping notes, memories, possessions from these activities. He claims that the games were heavily influenced by social, political and educational factors and had a profound impact on his entire life and his development as an artist. The second interviewee remembered a number of popular games and toys, but was not as personally influenced by play.

The information is permanently stored in the minds of the participants from the interviews. From the distance of time, they can themselves review whether the game contributed to their complex development and with what. Based on the narrative from the researched persons in these two narrative interviews, it is found that games and opportunities for artistic expression, only through hands-on materials, enhance practical abilities, expand imagination, improve social interaction with other participants, and contribute to expanding problem-solving capabilities. Hands-on materials are all those materials that move from a utilitarian functionality to a play object. In this material the handy tool water is used, water is presented as a material for practical activity in addition to being used as an expressive tool in the selected visual materials.

2.4. Workshop “Water” – design

Theoretical level: Staged, playful presentation of visual materials. New knowledge is acquired in the field of contemporary forms in the visual arts: video materials presenting the

works of contemporary artists working in the visual arts with the material/expressive medium of water; materials related to practical tasks located in space, explanation of how to find and use them; acquisition of new knowledge in the visual arts.

Practical level: practising and acquiring skills of organisation, participation in group activities, sequencing, orientation in space and time, practising motor skills and tactile sensations, improving "visual vocabulary", acquiring new skills also in the field of visual arts**;**

Introduction. Water in art. Water as a material – aggregate states, sound, smell, shape

Water at room temperature is a transparent, odourless and colourless liquid. It covers a very large part of the surface of planet Earth and is concentrated in oceans, lakes, rivers, water is also contained in glaciers. The solid aggregate state of water is called ice and the gaseous state is called water vapour. Due to the natural water cycle, water from the oceans and seas evaporates into the atmosphere and then returns to the surface as precipitation.

Water in art – water has always been a subject in works of art. Since prehistoric times, people have depicted water as a wavy line, a stylized image that is easily recognizable and understood. We can see similar vertical or horizontal lines in different parts of the world. Even today, similar symbols are used to signify water.

Determine the entry level: cards are offered with images of contemporary works, in the field of visual art, they should be divided into two groups: works of art and images of water.

Liquid state of water	Solid state of water	Gaseous state of water

Liquids do not have a shape, they take the shape of the container they are placed in	*When it's cold, the water turns to ice.*	*When you make tea, the water boils and becomes gas.*
Examples: Water in a bubble – "The water footprint" – Shigeko Hirakawa [30] "The floating Piers" – Christo [31] "Fireflies on the Water" – Yayoi Kusama"[32]	Examples: "Ice Watch" – Olafur Eliasson[33] "Minimum Monument" – NéleAzevedo[34]	Examples: "Something Something National Conversation" – Mitchell F Chan
Liquid game	**Hard play**	**Gas game**
Snow		Cloud

The clouds you see in the sky are mostly tiny droplets, like the cloud that appears in the bathroom when you take a hot bath. High up in the clouds it's much colder than on the ground. The water sometimes freezes in the clouds into little crystals we call snowflakes. ***[35]***

snow artist Simon Beck [36]

Berndnaut Smilde ever-expanding series Nimbus. [37]

Liquid game

A small plexiglass/glass ball (with a hole) is handed out, a silicone mould can also be used, to each child, in each of them a part of the sentence is written on paper – "*The object you are looking for is inside the museum, look for a white box", after the* sentence is put together (with the help of the workshop leader), the children start searching. When they find the box, they take out the objects previously inside: a multimedia device (phone or tablet).

Material about the environmental installation *"*Water in a bubble" is released. A commentary on the shape of water and environmental and water conservation, linked to the review of "Water in a bubble", Shigeko Hirakawa, 2014. This is followed by an overview of the *Floating Piers* Project.

Go outside again and place the balls in a rectangular container filled with water. Rotate and try different positions according to the water level. The property of water to take the shape of the container it is in and the power to push objects is commented on. Using droppers that are loaded with tempera (the three main colours), children colour parts of the water. The balls are filled with water and placed in a freezer/ if a freezer cannot be provided, frozen colored balls are provided

in a cooler bag. Small paper boats, origami boat demonstration. Each child makes their own boat. Coloring with tempera. Making small paper boats, origami boat demonstration. Each child makes their own boat. Colouring with tempera. While drying we head to the model demonstrating the water cycle. Comment on the water cycle. Next a boat race in the small rectangular container from the first game, which still has coloured water, possibly inside the museum, in a secure area for the paints, a large piece of watercolour paper is placed under the racing area, the prints, splashes of water and used racing boats can be stored. After the race, a video on Fireflies on the Water is reviewed.

Ice game

A second box must be opened (located at the taps). In it there is a projector (provided by the workshop organizer). The projector is switched on and a photo and video material about the installation *"Ice Watch", Olafur Eliasson* is shown. *Eliasson; Minimum Monument, NéleAzevedo* is seen.

Cloud game

The organizers prepare hot water (in a hot water jug). Pour into 5 jars (for each child). Take out the frozen coloured spheres, place on the lids and wait. A "cloud in a jar" is prepared.[38] Count to 20, then the cloud is ready photographs are taken. Once the ice balls have been used to make the cloud, they are left out on the watercolor sheet involved in the boat race. Salt is added, the effect is observed. Videos: *Something Something National Conversation, Mitchell F Chan* (projector). Photo and video materials regarding Berndnaut Smilde's "ever-expanding series Nimbus" are reviewed.

Water from the jars is poured into a larger glass container, shaving foam is added to the surface, then paint is poured over the foam and a *"cloud and color rain in a jar"* is observed. This is then applied to small pieces of card, each child making their own picture with the coloured paste. Visuals.

Discussion, meanwhile the results of the work are arranged in a joint exhibition – the watercolour cardboard with the melted ice, the individual works and a projection of the photos from the cloud game.

Determining the starting level: the same cards from the entry level are offered and again a selection is made by the workshop participants

CHAPTER 3. Implementation of the developed game model. Analysis of the qualitative data obtained in the course of the research and implementation of the experimental game model/system

3.1. Development of a modular system/model for working with children aged 6 to 10 years

The derivation of a modular model, for a training Educational Creative Workshop “Water” is tailored to the preparation and age of the contingent. The visual-theoretical part includes educational material that expands participants' knowledge of contemporary forms in the visual arts. The workshop includes the display of various artworks from the aforementioned period that use specific materials, expressive media and conceptual techniques related to water. Water is used as an accessible and familiar material to explain some of the facets of the multi-layered content of contemporary conceptual works. The practical part is related to the playful mastery of the materials and their different aggregate states, in order to directly explore the essence of works of this type, working directly with the materials and creating an interesting and memorable setting and practical activity.

The final stage of the workshop is oriented towards a kind of confrontation, the purpose of which is to make an overview of the possibilities of working with a familiar material, and the interpretations of each of the participants.

The achievement of the goals and objectives set in this pedagogical experiment should be framed by input and output diagnostics in order to have clarity and objectivity in the evaluation of the results. This diagnostics is implemented by means of cards with images of water and of popular works of world art, which also include the examples with which the participants will interact. In this stage, information is obtained about the participants' preparedness and their readiness to interact with the images is established. Again in a game format, children have to sort two groups of cards, one with images that illustrate artwork and the other with images of water. The same cards are offered at the end of the workshop for comments from the same contingent.

The core of the training is the provision of work and visual materials in a specific sequence, linked to the main theme of the workshop – "Water". A summary video is prepared to present selected works appropriate to the age of the contingent studied.

Expected results

Theoretical – after the Water Workshop, participants should:

- Recognize the artworks viewed;
- Distinguish images of materials from images of artworks in which they are used;
- Recognize contemporary formats in the visual arts;
- To develop their imagination

Practical:

- Acquire basic knowledge of working with the materials used in the workshop;
- To acquire and improve their skills in working with non-traditional materials such as ice and steam;

3.1.1 Parameters of the main experiment

The structure of the described workshop "Water" can be interchanged and divided into separate fragments and game units. It can be adapted to other environments and implemented with similar materials. It is allowed to implement this pedagogical model with materials at hand, while respecting the conceptual relationship with the artworks shown. Slight variations in the timing and arrangement of the different stages are possible. It is acceptable to show additional materials and additional discussions if the research participants express interest.

In the **selection of images through which to** establish the input and output level of visual literacy in the participants are selected and prepared images of specific works, they are tailored to the age of the studied contingent, their training, the tasks and objectives of the workshop. They are presented in the form of cards that can be easily and freely shuffled, arranged and sorted. The images on the cards for input and output diagnostics are divided into two groups: images of artworks that contain water, or its aggregate state; images of water or its aggregate state.

After the input diagnostics, the development of the experimental model begins. The selection for the incoming diagnostics includes all the works that will be subsequently considered during

the workshop. This repetition of the images, enables them to be memorized and perceived more permanently. The works are presented through the photographs on the cards and through the videos, these are two different ways of exploring the same image, which stimulates memorization and develops ways of perceiving the information depicted.

3.1.2. Model characteristics

Form of training: workshop

The theoretical level includes a stage-based, game-based presentation of materials by authors related to the workshop topic. They acquire new knowledge in the field of visual arts and their contemporary forms. Tactile exploration of the materials. Videos presenting contemporary artists working, in the field of visual arts with material, expressive medium, conceptually – water. Materials related to practical tasks located in the space; improving the "visual vocabulary", acquiring new knowledge in the field of visual arts.

Place: the Museum of Water – Blagoevgrad, room, courtyard, park, studio,

Visual materials and tools: video reproductions, photographic material, playback devices.

Maximum number of participants: up to 5 people

Practical level – application of a system of didactic games in the form of a workshop. Exercise and acquisition of skills of organization, participation in group activities, observance of sequence, orientation in space and time, exercise of tactile sensations and skills, improvement of "visual vocabulary", acquisition of new skills also in the field of visual arts. For the purposes of this pedagogical model, the acquisition of new knowledge and familiarity with the materials is essential, due to their connection to perception, the performance of individual artistic elements is secondary.

Scope of the study

The chosen format for the implementation of this didactic system of games is a workshop, this allows the structure to be adapted to the specificities of the different groups and to be tailored to the interest and desire of the participants. The Water Workshop is conducted under the guidance of the author of this study, so direct observation can be established, giving a closer and more detailed view of the didactic game system developed. For the development of this model, a selection of specific artworks was made and presented alongside the introduction of the associated elements. The digital devices are used, for a short time and as a means of displaying

the specific artworks, they are not the subject of research and analysis. The practical level is developed on the development of the tactility and feel of the materials for the research group to associate the works, the content of the works and/or their authors.

This pedagogical study aims to examine whether, and to what extent, this methodology is useful in expanding knowledge related to contemporary visual art forms, exploring new means of working and how they can be applied.

The system of games presents in a dynamic and interesting way, specific works related to the material, the expressive medium of water. All the selected artists have a specific relationship to the material and use it, linking it to the content of the work, in a conceptual or visual way.

The selection criteria for these examples are:

- Be created by contemporary artists and the works must be in the visual arts;
- The authors' choice of materials and means of expression;
- Popularity of works and/or authors;
- Concreteness and clarity, given the age of the contingent;
- The number of examples should be related to the number and type of games and again to the age of the target group;

These criteria condition a relatively restrictive framework, despite which there are many more applicable examples. With potentially more theoretical representation, the time to implement the game model and the associated practical part would be reduced. Furthermore, given the age of the participants, it is likely to lead to premature fatigue in the group and reduce their desire for systematic play, the perception of new images and the activities associated with them.

The game model is a foundation in which the theoretical and practical levels move in parallel, in the process of play. Play is the constructive foundation on which this workshop develops. According to the characteristics of the research contingent, this training system can be divided into game fragments, but the theoretical and practical parts are interrelated.

Control and experimental group

For the purpose of this research material, two groups are required, a control group and an experimental group. The classes are conducted separately as the activities are conducted differently and this is the most objective way to conduct the training. The two groups have equal numbers of participants. All participants are shown the images for sorting as a means of

determining entry level and level of preparation. The difference between the two training models is that the control group is approached in a theoretical-practical manner, while the experimental group is approached with a system of games.

Spatio-temporal framework of the pedagogical experiment

The implementation of this pedagogical experiment is applied in five stages. Stage 1. Selection of visual examples, preparation of didactic materials; Stage 3. Design of the experimental pedagogical model and approbation of the pedagogical experiment; Stage 4. Implementation of the pedagogical experiment; Stage 5. Analysis of qualitative data obtained in the course of the research and implementation of the experimental game model.

3.1.3. Compilation of an experimental methodological model

The workshop "Water" contains a theoretical and a practical part, which are not separable, as the games are constructed in such a way as to alternate practical sessions with observation and discussion of artworks. The emphasis in the application of this model is on perception, discussion, tactility and visual literacy through playful handling of the materials. In the Water workshop, it is the process and perception that is important, not the final artistic outcome. The workshop format allows for direct correspondence with participants, communication is easy and the facilitator can respond immediately to any ambiguities or difficulties. The organization of the particular experiment is carried out and guided by the author of this work, who takes the role of leader, and the research contingent is composed of a group of children. For the realization of each workshop, a preliminary preparation should be made as hidden objects are set and the field of action is prepared.

After the Water Workshop, participants should know:

- Recognize the artworks viewed;
- Distinguish images of water from images of artwork in which it is used as a representational material;
- Recognize the specified contemporary formats in the visual arts;
- To develop their imagination and motivate themselves for additional activities.

Practical:

- Acquire basic knowledge for working with the materials used in the workshop;

- To acquire and improve their skills in working with non-traditional materials such as ice, water, steam;
- To combine different visual media;

Content Scope:

The content of each of the game stages is developed by sequentially providing objects, game elements and linking them to the theoretical part. The works presented fall into the following categories: art installations; land art; environment specific art[20] ; urban art action; interventions; monumental art installations; temporary installations; sculpture.

Activity 1. Introduction, discussion

Before the start of the activities and the incoming diagnostics, a short introduction is made with a story about water and a discussion about its aggregate states. There is also a discussion about the relationship of water to art and ways of representing it. This introduction helps participants to relax and share what they think, suggest their own ideas for depicting or recall an image they have already seen. They also begin their shared activity by listening to each other and thinking about a common theme. This activity is the same for both experimental and control groups.

Activity 2. Input diagnostics of the control and experimental group

The input activity is presented in a game-like way, in order to proceed to the next stage of the games the participants have to sort the proposed cards into two groups that are equal in number. One pile should contain images of water and the other artwork in which water is used. In this way, participants see familiar images used in different ways and are introduced to contemporary visual art forms in a fluid and thoughtful way. With this method the participants enter a play mode, this helps them to communicate and work in a team and also to discuss, both among themselves and with the workshop leader.

The control group should consider the images in the form of a test depicted on paper, so it is placed under equal circumstances with the experimental and this would give the results reliability and objectivity.

Activity 3. Group discussion on the topic and the relationship with fine art.

With the participating children in the group discuss how water can be represented, mentioning signs and images that have been used to represent water in the past and up to today.

[20] Site-specific art

Each child draws their own idea of water. The crayon is chosen as a primary and easy material to work with, which is presumably what most children have worked with. And the discussion encouraged them to come up with their own drawing, different from that of the other participants. At this point the group begins to build a mental image that will be worked on throughout the workshop. This activity is not primary, but is part of the introduction to the class. Through it, participants relax to work with materials and share what they have done with the rest of the group. This activity is the same for the control and experimental group.

Activity 4. "Liquid game"

This activity was performed differently for the experimental and control groups. The experimental group, in a playful form, discovers tasks, objects and works with the second assigned material – water, as well as with objects to help in the play of this specific material. Part of the game is the discovery of new visual material representing artworks. This activity introduces the study group to the substance of the experiment. The aim is to get to know water as an object with which, in addition to playing, one can also create. The competition is for the fastest boat, one has to act expeditiously because otherwise the drawings get spoiled, this activity brings mood and creates a feeling of an enjoyable activity that is easier to remember.

For the control group, these activities are presented in the same sequence but without the games included as methodology. This group watched the videos, worked with the same materials, but did not participate in a competition.

Activity 5. "Ice Game"

In a game form, tasks, objects are discovered and the third set material - ice - is worked with. The new coloured ice shapes the children have created are explored. Part of the play is the discovery of new visual material representing artworks. During this activity, discussion again takes place, with questions from both sides – workshop leader and participants. The opportunity to work with different materials is reinforced, the knowledge of contemporary visual forms in art is expanded. This activity is directly related to the next one.

Activity 6. "Cloud game"

In a game form, tasks, objects are discovered, also the fourth working material – steam. Materials are combined: water, ice, steam, shaving foam, paper, etc. Part of the game is the discovery of new visual material representing artworks. During the so-called "Cloud Game", as many materials as possible are used and combined to achieve a final artistic result. The children

create playfully and with motivation a “cloud in a jar”, a “colorful rain”, their own painting with paint and colored foam. Composing, mixing and touching different materials enhances their related knowledge and skills. The art examples shown encourage participants to think about how they would tackle more complex tasks. This mix of activities gives a summative view of the topic and it is important to understand whether the children involved in this workshop have looked into the examples shown and understood the relationship between the games and the artworks.

Together they create a collaborative piece by painting with the ice pellets on the cadastron, they can also add salt.

Activity 7. Arrangement of the realized objects in a kind of confrontation and discussion.

The children's artwork is arranged, along with the overall picture and objects that the children take as their own artwork. The arrangement is followed by an undirected discussion, with no pre-set questions from the presenter. The children are thus free to express their personal impressions and to what extent they feel satisfied with their participation.

Activity 8. Output diagnostics, secondary review of the input diagnostics cards.

This final part of the experimental design aims to test how much participants increased their knowledge compared to the beginning of the activities. They return to the sorted piles and review them again. This happens without the intervention of the facilitator in order to obtain as specific and neutral results as possible.

Instrumentation of the experiment:

Didactic materials: field observation protocols; maps with images of water and works that contain water elements; video documentation, video reports or fragments of the specific works; list of **technical and artistic** tools needed for the realization of the workshop: projector, smart phone, tablet, TV – one of these devices; projection wall in the presence of a projector; camera or smart phone for documentation of the experiment; space to conduct, indoors and outdoors**.**

3.1.4. Diagnostic tools:

The qualitative data from the workshop was collected through the following methods: game method; group discussion; observation;

Diagnostic method 1

The game method applied in the introduction and conclusion in the form of a card sorting game is used as a diagnostic tool to gather primary and outgoing information about participants'

initial and final attitude, knowledge preparedness and motivation in an easy, fun and worry-free way. The individual stages of the game can be used to test and reinforce the knowledge gained. The game can be used both to introduce and to lock in the topic of the lesson or course, making it a tool for exploring the impact of learning on participants.

Diagnostic method 2

The group discussion is a common method, during the talk the children become active and have the opportunity to ask questions in addition to answering them. Discussion is a method in pedagogy that can be used as a diagnostic tool to assess students' knowledge and skills. One way of conducting a discussion is by the leader asking questions that guide the students to reason and perceive the images. The discussion is structured according to the topic and the group being studied. Discussion in non-formal visual arts education when game-based methods are used can take place in a game context where the topic of discussion is integrated into the game. For the purpose of this study, shapes, textures and visual materials are used to stimulate discussion in order to generate interest and integrate the topic.

Diagnostic method 3

Direct observation is useful in a general toolkit because it provides a more holistic view of the processes and supports objective assessment of the effectiveness of the applied model as well as the state of the group during the experiment. The observation is carried out by the author of this paper, who is also the workshop leader. Thus, the leader can directly receive feedback on problematic elements, consistency or good impressions and recommendations. The observation described aims to complement and refine the results obtained from the analysis of the questionnaires, thus creating a more complete and objective picture. The workshop leader not only carries out the observation, but also actively engages with the participants, allowing him to gain first-hand insights.

3.1.5 Criteria, indicators and diagnostic tools

This work should be measured in terms of relevance and significance, both in theoretical and practical aspects and in methodological ones. This can be done by defining criteria by which to evaluate its performance.

The research is qualitative in nature, but at the same time both qualitative and quantitative measurement indicators are used. For the measurement of the indicators, three criteria focusing

on knowledge, skills and attitudes are set. These criteria were used to structure the assessment of the indicators into five levels: low, medium, intermediate, good and high. The latter are used to assess and analyse the performance of the participants in the experimental groups and determine the level of effectiveness of the study. The data obtained can be used to test and/or prove the hypothesis. Defining a five-point rating scale allows more flexibility for different situations and moods of the groups.

1 Criterion- knowledge. Increase knowledge of contemporary visual art forms that use water (and its aggregate states) as a conceptual and representational material. The use of playful methods in the presentation of contemporary visual art forms (particularly those using water) facilitates the acquisition of new knowledge in an easy, enjoyable and accessible way. **The indicator that can measure** this statement is – Availability of knowledge related to the topic;

2 Criterion – Skills. Mastery of approaches to pictorial materials, skills in working with them and combining them. Learning about contemporary visual art forms structured as play will increase the ability to understand and recognise artworks, and therefore apply them to specific tasks. **Indicator -** recognition of artistic means and their application in the practical part.

3 Criterion – attitudes. Increase knowledge of and interest in contemporary works of visual art and motivation to carry out the activities and practical sessions. The use of playful, tactile didactic materials increases concentration, holds attention, enhances communication skills and makes tasks more interesting and enjoyable. **Indicators:** concentration and willingness to observe; teamwork skills; enthusiasm in completing tasks.

3.2. Implementation, in an informal environment, of a methodological game model for training in contemporary forms of visual arts, in the form of a workshop.

3.2.1. Conduct of the workshop

The description of the processes that take place during the training workshop aims to present in a coherent way the data collected and the changes that occur in the groups studied. It tracks attitudes, knowledge, skills, motivation, fatigue, enthusiasm, inspiration, embarrassment and other factors that change with the stages and activities in this session. The collection of these data is done through field observation by the author of this paper, input diagnosis, output diagnosis and discussion.

Descriptive analysis

The Water Workshop takes place outside school hours as part of non-formal education. For the successful implementation of the first module, the author receives the support of the Museum of Water, Blagoevgrad. The participants have different initial theoretical and practical backgrounds, which cannot be foreseen. The experimental groups work through game methods, the control groups do not.

First Workshop "Water". Experimental group, Blagoevgrad

The first meeting with an experimental group, in the Museum of Water, Blagoevgrad. The introduction starts in the courtyard of the museum and goes very actively and smoothly, because the selected questions do not make it difficult for the children. They answer willingly and participate with enthusiasm. The discussion takes place with interest and the children ask questions, make assumptions, express their opinions and do not feel embarrassed. It also does not make it difficult for them and they begin to get into the topic. They comment on the shades with which they would depict different water objects. The workshop leader clarifies what the cool colours are and why people often associate water with them. The children show great interest and have not thought about the topic beforehand.

After the introduction, it is the turn of the input level, in which the children look at maps with various artworks depicting water or its aggregate state and documentary photographs with images of water-related objects. It is clarified that we are not only looking for water in a liquid state, but in different aggregate states. The children work willingly, commenting among themselves and choosing together. Most of the children recognise traditional images showing water (or another state of water), from the examples they are about to look at they only notice Nele Azevedo's work, Minimum Monument. In total there were about 47% correct answers, respectively there was 53% ambiguity and unfamiliarity with the material shown.

At baseline, this group had a 100% pass rate compared to the entry level results (46.7%), these participants improved their knowledge in visual arts by 53%. According to the quantitative indicators, this experimental group started with a lower entry level than exit level. This was diagnosed by defining three criteria: knowledge, skills, attitudes, which were evaluated on a three-level scale low, intermediate, high, they were entered during the entry level, exit level, discussion and observation, a comparison was made with the initial activity in the first session and the subsequent logical interpretation in the following educational activities. According to these evaluation criteria, the group started with 15 points, and ended with 31 points, almost

double the score. Participants reported satisfaction and high spirits, said that the games were interesting and enjoyable, and did not experience fatigue despite the session lasting longer than intended.

Second edition of the workshop "Water". Control group, Blagoevgrad

The first meeting with a control group, in the Museum of Water, Blagoevgrad. The introduction starts in the courtyard of the museum and passes very actively and smoothly, the initial questions do not make it difficult for the children. After the guided tour it is the turn of the input level, where the children look at images with different artworks that contain water or its aggregate state and photographs with images of objects related to water. The images for the control group are not presented as a game but on a digital device.

The children join in willingly, exchanging comments, but working mostly individually. Most of the participants were able to recognise the traditional formats, they were also able to recognise three works that are part of the examples to be considered, these are Christo, The floating Piers, 2016; Nele Azevedo, Minimum Monument, 2007 and Simon Beck, Snowart, Reverse Mandelbrot, 2020. The results show that the group started with 60% correct answers and ended with 66.7% correct answers, at the input and output levels respectively. Compared to the experimental group, this group started with a higher entry level, and ended with about a 7 percent increase in knowledge.

At baseline, this group had a 66.7% pass rate (Figure 5.2. Application), compared to the entry level results (60%), these participants improved their visual arts knowledge by 6.7%. According to the quantitative measures, this experimental group started with a lower entry level than exit level.

3.2.1. Summary and comparison between experimental and control group, part one:

- Both groups were observed to acquire new knowledge in the visual arts;
- Both groups would attend a similar class, again;
- Both groups enjoy working with these materials;
- The experimental group did not experience fatigue, unlike the control group which relied only on theoretical and practical activities;
- The experimental group had higher scores at baseline, but the control group started with higher scores at entry level;

- The concentration in both groups was stable, up to a certain point, then in the control group it started to decrease after about an hour and a half (astronomical), from the start of the activity.
- The experimental group worked as a team, much of the time, and the control group mostly individually.

  The systematized results (Figure 4, Application) show that Experimental Group 1, Blagoevgrad has a positive progress with a numerical percentage of 53.3%, in terms of the acquired new knowledge in the field of contemporary forms of visual arts. Control group 1, Blagoevgrad has 6,7% progress.

3.3. Second activity – holding a workshop on "Water". Experimental group, Sofia

The second realization of the workshop "Water" with an experimental group, in a free access park Zaimov, Sofia. The children know each other before the Water Workshop. The introduction starts with the delineation of the play area, as the setting for this training module is different and the boundaries of the field of action need to be delineated. A picture quiz is offered, with cards that contain water objects and photographs of water or water conditions. Children work in teams, leading a discussion. Participants identify Simon Beck's work, Reverse Mandelbrot, and Nele Azevedo's Minimum Monument, as works of art in addition to traditionally executed works.

This experimental group started with about 53% artwork recognition and at the exit level with 87%, which expressed in numbers is a 33% increase in domain knowledge. According to the quantitative measures, this experimental group started with a lower entry level than exit level. According to these evaluation criteria, the group started with 17.7 points, and ended with 30 points.

Second Water Workshop. Control group, Sofia

Control group, Zaimov Park, Sofia, comprising measures of qualitative data related to theoretical aspects of art and criteria for skills and practical skills. The total number of points for the entry level of the group was 16 and for the exit level 22,7.

The input level described above is presented differently than for the experimental group, the images for the control group are on a digital device. The children join in eagerly, communicating with each other. Most of the participants were able to recognise the traditional formats, they were also able to recognise three works that are part of the examples to be looked at, in figure 5.4 it

can be seen that these areNele Azevedo, Minimum Monument and Simon Beck, Snowart, Reverse Mandelbrot. The results in show that the group started with 60% correct answers and ended with 73. 3% correct answers, at the input and output levels respectively. Compared to the experimental group, this group starts with a higher entry level, and ends with about 7 percent increase in knowledge.

At baseline, this group had a 73.3% pass rate, comparable to the entry level results (60%), these participants improved their visual arts knowledge by 13.3%. According to quantitative measures, this experimental group started with a lower entry level than exit level. This was diagnosed by defining three criteria: knowledge, skills, attitudes, which were assessed on a predefined graded scale. A comparison was also made with the initial activity in the first session and the subsequent logical interpretation in subsequent learning activities. According to these evaluation criteria, the group started with 16 points and ended with 22.7 points. Participants reported that it was interesting but they experienced some fatigue.

The comparison between experimental and control group can be summarized as follows:

- Both groups were observed to acquire new knowledge in the visual arts;
- Both groups would attend a similar class, again;
- Both groups enjoy working with these materials;
- The experimental group did not experience fatigue, unlike the control group;
- The experimental group had higher scores, but the control group started with higher entry level scores.
- The concentration in both groups was stable, but in the control group it began to decrease after about an hour and a half (astronomical).

3.3.1. Summary and comparison between experimental and control group, second part – conducting a workshop "Water"

3.4. Summary of results

To compare the groups, two by two, experimental and control, each group was subjected to detailed diagnostics. In this part of the study, the result given by the 4 groups should be summarized and analyzed.

Total points per group:	***Entry level***	***Baseline***	***Results***
Experimental group, Blagoevgrad	***15***	***31***	***16***
Control group, Blagoevgrad	***21***	***21.3***	***0.3***
Experimental group, Sofia	***17,7***	***30.33***	***12.6***
Total points Control group, Sofia	***16***	***22.7***	***6.7***

The positive results of the Water Workshop give grounds to claim that there is an increase in the theoretical knowledge and skills of the participants, which is an argument for the effectiveness of the training game model.

3.5. Proving the hypothesis

All groups studied showed positive results, although in one control this was in a minimal amount. This means that participants are gaining knowledge, increasing skills and are willing to participate in more activities like this. The experimental groups using play methods, the subject of the study, showed higher scores on all three criteria set to prove the hypothesis:

- Availability of knowledge related to the topic, at the beginning of the sessions, the two experimental groups have less available knowledge as a percentage of the assigned visual test, and the control groups score slightly higher, but at baseline this changes and both experimental groups show a much higher level of theoretical knowledge;
- Improvement in visual vocabulary/visual literacy, this indicator is again measured, through the visual test, the participants of the experimental groups guessed that they had seen these examples, in the cards handed out at the beginning of the workshop, while the control groups even in the exit diagnosis did not guess all.
- Ability to recognize specific artworks, this indicator was again advocated to a higher degree, in the experimental groups;

- Recognition of the artistic means and their application in the practical part; during the discussion, children from the experimental groups comment on which work reminds them of a particular game, or an object they find similar, this does not happen in the control groups;
- Skills in working with new materials, mixing them and composing them in space. Due to the nature of the games, participants in the experimental groups had more opportunities to handle the materials and consequently use them more boldly in their environment. The control groups also work well with the materials and find them interesting, but get tired earlier and do not have as much motivation to experiment.
- Concentration and willingness to observe. Experimental groups did not request rest and reported no presence of fatigue. Control groups needed a break and reported the presence of fatigue;
- Teamwork skills, the experimental groups work as a team almost all the time, apart from the times when their enthusiasm causes them to rush and not wait for the rest of the team, the control groups work mostly individually, on their own.
- Enthusiasm in task performance, playful mood brings the experimental groups more motivation and enthusiasm, while in control groups, it is not in such amount.

In the experimental groups, all scores were higher than those of the control groups, whether assessed by observation, discussion, or visual test. It is evident from the quantitative measurements and calculations that both groups made progress in terms of theoretical, practical knowledge and attitudes, this gives grounds to claim that the system developed is effective, but when it is based on game forms the results are even higher.

After the analysis of the information collected and analyzed in the present study, it can be concluded that the pedagogical experiment had a positive effect on the attitude, level of theoretical knowledge and practical skills of the participants in the experiment. The scores of the experimental group were higher on all criteria. Furthermore, it was found that the use of game forms increased the level of concentration, reduced the feeling of fatigue and improved mood and motivation. Ultimately, these results confirm the hypothesis of the dissertation that "If a specific system of classes based on play approaches and methods were implemented in the context of non-formal visual arts education, it would lead to

qualitative results drawn out in the improvement of artistic skills, experience and interest in the field of contemporary visual art forms."

3.6. Findings and conclusion

A pedagogical experiment was carried out through a methodological game model in the form of a workshop, consisting of a series of games linking theory and practice, to study contemporary forms of visual arts. Materials similar to those used in the works observed in the theoretical parts were used. Diagnostic methods and tools have been developed and applied, including observation protocols, discussion and visual tests for entry and exit level. As a result of the experiments, it was confirmed that the participants in the experimental group demonstrated a higher level of theoretical knowledge and practical skills in the field of visual arts. The methodological workshop module "Water" was tested with a total of 20 participants, and the proven effectiveness of the developed educational model supports the hypothesis of the dissertation.

Conclusions:

- The developed game model for an educational workshop is suitable for children aged from 6 to 10 years, with no or prior training in contemporary forms of visual arts;
- The use of game forms supports the educational process, engages participants more and brings them a playful mood;
- The game form as a means of input and output diagnostics is a useful tool as participants carry out the activity without worry and with ease, in some cases with a pleasant feeling;
- The use of game forms gives higher scores for concentration and lower scores for fatigue;
- Having a constant dialogue – discussion helps the participants to enter more deeply into the theoretical matter and helps them in the practical activities. A facilitator can directly monitor levels of understanding, motivation, concentration, fatigue;
- The use of the game as a learning tool increases the desire to participate and the motivation for team activity;
- Discussion during implementation increases motivation for individual independent work and sharing of ideas and intentions.

All the analytical tools show a higher level of skills, knowledge and attitudes in the experimental groups, this is the justification for the success and effectiveness of the learning module, on all the criteria listed. The results of the study show that the experimental group demonstrated a higher level of theoretical knowledge compared to the control group. The participants of the experimental group showed higher concentration during the viewing of the videos, mainly through their active participation in the discussions and feedback to the presenter of the training session. Also, the results of the visual test, in the form of a game, showed that the experimental groups increased more knowledge related to the theoretical part, to this workshop. These results support the effectiveness of the experimental methodological model developed by the PhD student.

The conclusions drawn from the experiment show that the methodological model, which uses play forms to study contemporary expressive art forms, in particular visual arts, functions successfully. The materials developed for this module are suitable for application in non-formal education.

3.3.1. Development and potential:

- During the development of this workshop, ideas for its development emerged, one of which is mentioned in the main text, namely to make this game model publicly available and free for all who want to learn more in the field. By making a video that becomes part of the educational project “Picture Stories”.
- Another direction that is being developed is the creation of a small booklet with instructions for use by visitors to the Water Museum, Blagoevgrad and a format of the booklet to be available online.
- The pedagogical model can be successfully included in the museum program of the Water Museum, Blagoevgrad.
- The logical continuation of the workshop “Water” are two subsequent modules with a playful presentation of the themes “Earth" and “Air”, again linked in the same way to the materials and formats in which the artists work. As these are materials familiar to the contingent but in a different context. The playful presentation of such connections has positive results.

Conclusion

Play Forms in Visual Arts Education in Non-Formal Education is a work that proposes the use of one of the most familiar materials, water, as didactic. The playful methods through which this medium is mastered are the basis in which theoretical and practical activities alternate, closely linked to the different states of water and the works that are presented to the groups studied. The positive results of this study show the successful use of play and play forms as a construct on which to present visual information and related didactic materials.

The conclusions of a successful pedagogical experiment, built on the basis of game forms, using water and its aggregate states as a central sensory tool for learning, are related to the fact that all the performance criteria of the module are achieved. The experimental groups demonstrated higher success rates compared to the control groups, this is a reason to confirm that game forms are an effective tool for achieving educational goals. Thus, we can conclude that the proposed pedagogical method is effective and can be applied in non-formal education in order to promote more effective learning and achieve successful results in the field of visual arts.

Contributions of the thesis

1. The topic of the dissertation “Play Forms in Visual Arts Education in Non-Formal Education” has not been presented before in this format and represents the researcher's own view, which draws on scholarly sources in the field;
2. Theoretical material has been selected, analyzed, systematized and translated theoretical material, which is currently not published in Bulgarian scientific works;
3. An experimental learning model is structured, planned and derived that applies play forms as a learning tool in non-formal education;
4. What is new in this pedagogical model is an interdisciplinary approach in the arts. Areas such as the humanities, which are studied as different disciplines, are touched upon and related to contemporary visual art forms in a compelling way;
5. This educational module can be transformed and composed into segments. And it offers a flexible application of the learning tool workshop, during the experimental work with children of the selected age group;
6. Another innovation is the creation of a link between the environment, natural materials, working with them and modern digital tools.

Publications on the dissertation topic:

Alexandrova, M. (2021). Gamification in visual arts. Sp. Philosophical Alternatives, Vol. 2, 12-17. DOI: 10.24958/2519-5436.2021.2.4062

Alexandrova, M. (2021). Water as a conceptual and figurative material in contemporary visual arts. Sp. Visual Studies, Veliko Tarnovo University “St. Cyril and St. Methodius”, 1, 32-42.

Alexandrova, M. (2021). Visual Arts in a Decentralized Trust Environment. In: Proceedings of the VII Youth Scientific Conference “ART AND CONTEXT 2021” (pp. 71-82). Institute of Art Studies BAS