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### Education Through Visual Arts in the Process of Preparing a Child in Middle and Late Childhood to Be Visually Competent

Edukacja przez sztuki wizualne w procesie przygotowania dziecka w okresie średniego i późnego dzieciństwa do stawania się kompetentnym wizualnie

Abstract: In this article, I would like to make an attempt at a kind of return (probably incomplete and limited) to a unique, due to the potential of its content and forms, process of education of a child through visual arts (optical arts, visual arts) that allows the child to perceive, understand and create the surrounding iconosphere, gradually acquiring competences connected with "visual literacy". The activities that foster such an activity of the child do not abandon the traditional assumptions of "education through art", but complement them with new challenges and perspectives. The area of analysis, pointing to theoretical foundations and a review of literature, is reduced in the article to a discourse on the importance of visual literacy as one of the basic human competences and the possibility of using the potential of visual arts in the process of preparing children, already at the level of middle and late childhood, to become visually competent persons in the future.

Keywords: image culture; visual literacy; visual arts; child; educating through visual arts

Abstrakt: W artykule podjęto próbę swoistego powrotu (zapewne niepełnego i ograniczonego) do unikalnej, ze względu na potencjał jej treści i form, edukacji dziecka przez sztuki wizualne (*optical arts, visual arts*), pozwalającej mu odbierać, rozumieć i kreować otaczającą je ikonosferę, stopniowo zdobywając kompetencje związane z "alfabetyzacją wizualną". W działaniach sprzyjających takiej aktywności dziecka nie rezygnuje się z tradycyjnych założeń "edukacji przez sztukę", lecz uzupełnia się je o nowe wyzwania i perspektywy. Obszar analiz wskazujący na podstawy teoretyczne oraz przegląd badań sprowadza się w artykule do dyskursu o znaczeniu alfabetyzacji wizualnej, jako jednej z podstawowych kompetencji człowieka oraz możliwości wykorzystania potencjału sztuk wizualnych w procesie przygotowania dzieci, już na poziomie średniego i późnego dzieciństwa, do stawania się w przyszłości osobami kompetentnymi wizualnie.

Słowa kluczowe: kultura wizerunku; alfabetyzacja wizualna; sztuki wizualne; dziecko; edukacja przez sztuki wizualne

### INTRODUCTION

The skill referred to as "visual literacy", although not explicitly expressed in the competences defined as key competences, is becoming one of the important areas of children's education, as everyday communication practices are increasingly shaped by information and multimedia technologies. It is their development that caused human thought to turn towards visual communication, its principles and language.

In the current of critical discourse on children's education, it is emphasized that while pointing out the competences necessary for children to optimally cope with the challenges of the modern world, attention is not always paid to the necessity of developing competences connected with "visual literacy", although literacy itself, understood as the ability to construct text and read it, is no longer a sufficient skill for a man of the information society. We function in a mediatized world in which everything that surrounds us - static and dynamic images, advertisements, infographics, movie posters, illuminated advertisements - produces, as Gill Dorfles notes, a new, peculiar iconographic panorama of our era. Both the adult and the child live in a world in which everyday existence depends on certain impulses, pressures derived from visual stimuli, but as accustomed to the images that surround us, we are not aware of the influence they exert. These images, most often of low value, sometimes even trashy, on the one hand, attack the imagination, shape tastes, inform, entertain and teach, and on the other hand, manipulate ideas about life, deceive us and propagate falsehood (Dorfles 1973). If we do not want children to get lost in this culture called "the culture of images" or "the culture of gazeocentrism", they should be taught the visual alphabet, in addition to the skills of traditional writing and reading, because images, in all their diversity, have become parallel and equivalent codes of communication and interaction (Frey, Fisher 2008, p. 3).

In this context, the ability to "read" images – their understanding, critical interpretation, but also their creation and use – seems to be a universal condition for participation in social life and an aspect of knowledge that allows one to become a self-steering entity. Learning "visual literacy", however, is a long-term process, and at its core should be targeted, intentional educational activities undertaken by adults as early as in childhood.

I would assign an important place in the process of preparing a child to receive and use the language of visual communication, and thus to become in the future a "visually literate" person who understands and critically analyses changes in the forms of visual communication, but is also able to use visual language in the process of communication with others, to visual arts (optical arts).<sup>1</sup> Thus, the area of analysis

<sup>&</sup>lt;sup>1</sup> The term "visual arts" covers various fields of artistic creation perceived visually (from Latin *videre* – "to see", hence the name – "visual", "optical"). This category is used in relation to traditional fields such as painting and sculpture, as well as in relation to newer phenomena in art such as

in the article will be reduced to the discourse on the importance of visual literacy as one of the basic human competences and the possibility of using the potential of visual arts in the process of preparing children, already at the level of middle and late childhood, to become visually competent persons in the future.

# "VISUAL LITERACY" AS A MEANINGFUL COMPETENCE IN THE CHILD'S PERCEPTION OF THE SURROUNDING ICONOSPHERE

Rainer Patzlaff in his book The Frozen Gaze, taking up an interesting, emotional, but very substantive critique of iconospheric addictions, points out that the results of numerous studies carried out in various countries, which concerned the visual perception of images, force a specific conclusion – those who can perceive images consciously experienced education that allowed them to "consume" images, they notice not only their outer layer, but also the message hidden under this layer (Patzlaff 2008, p. 60). This aspect is also noted by Andrzej Zwoliński, which indicates that the lack of preparation for life in the culture of the image can carry a lot of negative consequences, for example, (1) it can lead to chaos in the field of information, ideas, concepts, and even values and principles, because the uncritical reception of images goes hand in hand with the lack of skilful selection of a large amount of content, (2) by taking an excess of images as part of the use of the iconosphere, it can cause in the individual passivity, intellectual laziness, escape from mental effort (this is why, according to Zwoliński, the so-called theatralization of social life, which consists in passively observing the "scene of life" without any commitment, arises), (3) it can addict, enslave and distort the decision-making mechanism (the will) in an individual that uncritically interacts with visual culture, (4) in a situation of excessive and imprudent contact with the iconosphere, it may lead to fear of reflection, (5) an excess of images, may disturb the ability to deal with the logosphere, for instance, dialogue, reading texts with comprehension, (6) unreflective contact with images can also make an individual susceptible to manipulation because the suggestibility of the image makes the individual unable to comprehend a certain illusion related to, for example, the virtualization of reality (Zwoliński 2003, pp. 445-446).

performance, environment or artistic installations, which are not covered by traditional plastic or fine arts. Computers are becoming more widely used in the visual arts. Their applications include the capture or creation of images and forms, the editing of those images and forms (including the exploration of multiple compositions) and the final rendering or printing (including 3D printing). Computer art is any art in which computers have played a role in production or display. Such art may be an image, sound, animation, video, CD-ROM, DVD, video game, website, algorithm, performance or gallery installation. Many traditional disciplines are now integrating digital technologies and, as a result, the boundaries between traditional works of art and new media works created using computers have become blurred.

In the context of the problems signalled by both Patzlaff and Zwoliński, it is difficult to overestimate the importance of visual arts in the process of children's education at the pre-school and early school level, because the era of images is developing more and more intensively and a new cultural code is being created, the determinants of which are an image, computer, tablet, smartphone with Internet connection. As research shows, the scale of their use, both in Poland and in the world, by children who have not yet reached the age of seven, is constantly growing. Six years ago, Agnieszka Bak's analyses showed that 43% of 1-2-year-olds and 62% of 3-4-year-olds in Poland used mobile devices.<sup>2</sup> In the group of children aged 5–6, this percentage was then as high as 84%. The research also indicated another interesting aspect – 26% of children under the age of 6 had their own mobile device (Bak 2015). Currently, this trend can no longer be stopped, and modern children are referred to by some authors as the "Alpha generation" (these include children born after 2010 – Gardner, Davis 2013), or the "Glass generation" (due to their frequent use of tactile, glass interfaces of mobile devices - Williams 2015). Describing the functioning of these children, it is indicated that: (1) the above-mentioned children spend much less time on personal relationships, they also have weaker contact with other people, (2) they value the mobility category, which completely changes the way they communicate with others, (3) they grow up in the Internet of Things, or even the Internet of Everything – technology has become an integral part of the products themselves, turning them into computers (McCrindle, Fell 2020).

New technologies, significantly transforming the character of culture, made us accept the paradigm of "picture culture" and we have become so accustomed to images to such an extent that we think we understand them perfectly. Commenting on the changes taking place in postmodernity, we emphasize the fact that this culture changed the life of a modern child, but this belief is not fully reflected in educational practice, despite the fact that the aspect related to the creation of activities aimed at developing visual competence is also highlighted, although to a very limited extent and in a not very "clear" way, by the core curriculum of pre-school and general education (Regulation of the Minister of National Education of February 14, 2017). Thus, the development of visual competence is still not treated as an area of activity, which should be one of the educational priorities, even though an increasing number of visual stimuli enter the child's environment, among which different visual qualities are mixed: infantile patterns and valuable artifacts. In the times of "ocularcentrism" (see Mirzoeff 2012, pp. 738-739), the lack of visual competences can be treated not only as a situation in which the child-recipient becomes vulnerable to visual stimuli from everywhere. The ability to learn visually, to think and solve problems in the visual

<sup>&</sup>lt;sup>2</sup> A research on a group of 350 American children between the ages of six months to four years indicates that 75% of four-year-olds own a mobile device, and 96.6% use tablets and smartphones; moreover, they began using these devices before the age of one (Kabali et al. 2015).

field, is essential for intellectual and emotional development. Thus, possessing these competences will, as information evolves, become a requirement for success in life, both at the level of intrapersonal and interpersonal relationships.

In this context, significant importance must consequently be assigned to "visual literacy" referring to the group of visual competences that a person can develop by integrating them with other sensory experiences. It is important to understand how people perceive objects, interpret what they see and what they learn from them. The significant contribution of images (and imagery) to interpersonal communication means that visual literacy is as much a necessity for obtaining information, receiving it critically, handling it, and using it in social practice.

# VISUAL ARTS IN THE PROCESS OF LEARNING THE ALPHABET OF VISUAL LANGUAGE BY THE CHILD

Skills related to looking, seeing, and imaging were for a long time treated as acquired naturally, by just being in the environment, during spontaneous communication, in an obvious and necessary way, so making reflections on these competences did not seem necessary to many of us. This gave visual competence the apparent ease of encoding and decoding visual messages.

Today we know that without these competences it seems impossible to function in the culture of image. The importance of "visual literacy" in the education of children is very clearly emphasized by researchers dealing with the processes of formation of nominal and verbal concepts in early and middle childhood. In the article "Early-Concept Books. Acquiring Nominal and Verbal Concepts", Bettina Kümmerling-Maibauer and Jörg Meibauer emphasize the need of learning the "visual alphabet" during childhood as a competence necessary for modern people dealing more and more often with a culture that exhibits visuality (2005, pp. 324–347). They also stress that learning the competences necessary for the reception of visual culture should be based not on disconnection, but on the cohesion of "visual" (perception of visual qualities) and "visual literacy". According to the authors, picture books can play an important role here, as they allow for learning visual codes by, among others, extracting individual figures from the background, "decoding" shapes, lines, points, colours and dimensions of objects (in the 2D version, in fact representing the object in 3D), as well as the style of representation (bicolour, multicolour, contrasted, in a contour, with shadow, in profile, in perspective briefly) (Sikorska 2021).

On the other hand, Abigail Housen and Philip Yenawine point to the importance of the Visual Thinking Strategy (VTS) method in the process of learning, which is based on research conducted by Housen. The research indicates that in the process of learning "visual literacy" by children it is important not only to develop visual but also linguistic competences – both are equally important in creating representations of the world (Housen 1999, 2002; Yenawine 2013). Based on the analysis of the results of the Aesthetic Development Interview, Housen identified five stages of aesthetic development that are related to the degree of visual competence it is important to examine them in relation to the child's cognitive development, on the one hand, and to the opportunities created for this development by education through the visual arts, on the other (Krauze-Sikorska 2006).

The first two stages are characteristic for those who have little contact with art (or have no contact at all), so they have no reference to it. In order to understand visual messages, they compare what they are seeing with their acquired knowledge. At the first stage, a remarkably simple type of perception is dominant. It is based on fragmentary observations, and not on holistic or systematic observations that appear in further stages of visual development. These initial observations are "idiosyncratic" in nature and are verbalized as single words. They are understandable for the recipient himself, but not always for others. Time and experience make it so, that the perception of the image starts to be based on the logic of the image itself. The recipient sees things connected with other things in context and in space. While at the beginning the observations are concrete ("this is a cat", instead of: it is an illustration, likeness, portrait of a cat), gradually the notion of images as representations created by someone with specific intentions appears. Similarly, the things that are at first recognized in an image are based on the personal experience of associations of the recipients of the image. When the first recognitions begin to create meanings, they take the narrative form, most often the form of animating still representations (when watching a cat on a tree trunk, the situation can be verbalized as "the cat climbs a tree"). It is also common to assign emotional meanings to what is seen. At the next stage, the recipient of the image begins to wonder why something looks the way it does, comparing the image with others from his or her own experience. In this case, the point of reference is usually what the viewer expects based on the reality that is known to him or her. This is also when the discrepancy between what is seen in the image and what is directly known is perceived. It is this additional experience of watching and thinking about art that makes other aspects appear. The recipient begins to pay attention to the technique or the medium.

The vast majority of people surveyed by Housen<sup>3</sup> were at the basic stages of aesthetic development, but most people were in the first group. Housen's findings are unfortunately confirmed by many other studies, carried out later, also in Poland. The conclusion resulting from the research shows quite clearly that the multiplicity of "meetings with pictures", without learning how to "read them", does not spontaneously develop those competences that are essential for the development of cognitive processes.

Referring to the VTS method, it should be emphasized that what seems particularly important for the education of children is the practical use of the above-mentioned

<sup>&</sup>lt;sup>3</sup> Housen has conducted her research for over 20 years, in various age groups.

competences. Visual Thinking Strategies have been successfully implemented in many educational institutions in the USA, including California, West Orange Public Schools in New Jersey and the Museum of Modern Art in San Francisco, because it provides the opportunity to learn "visual literacy". It also significantly increases critical thinking, language and reading skills as it motivates teachers to create a child/learner centred environment and children of all levels of education to discover the "language" of images on their own and engage in rich, absorbing discussions with others.

The necessity to develop visual competences was also confirmed by my experimental research related to the search for effective solutions for learning by visual arts in preschool children (Krauze-Sikorska 2006), research on the reception of the art of non-professional artists by children, i.e. the so-called outsider art (Krauze-Sikorska 2019), or "research in action"<sup>4</sup> on learning "visual literacy" by preschool and early school age children through active reception of images, while also undertaking creative graphic activities using various tools, including new technologies conducted jointly with Joanna Sikorska (Sikorska, Krauze-Sikorska 2021, in press). In all the activities undertaken, verbal communication was a significant element – sharing experiences, subjective emotions, and impressions. In the research the Play School Art Maker application was used, which allowed children to freely create pictures, animated films and slideshows with stories using their favourite Play School toys. The children were able to add their own audio narratives, upload their own photos as backgrounds and save pictures of their creations. An interesting part of the research was how the children "read" street art of varying quality,<sup>5</sup> which allowed for subjective reception of the images but also discussion involving peers and adults alike (Sikorska, Krauze-Sikorska 2021, in press). Although we are cautious about the results from these preliminary studies they are nevertheless reflected in other studies (see, e.g. Bresler 1998; Yu, Nagai 2020; Krauze-Sikorska 2006), indicating that problems with visual interpretation are most often the result of a too hasty and short attention span, and thus a lack of seeing and perceiving skills, a lack of direct experience based on multisensory perception, a lack of understanding of visual language, but also a lack of messages, perceptions and concepts needed to "read" the task. The research also indicates that the basis for learning "visual literacy" is primarily the children's motivation to undertake this type of challenge and exploration based on curiosity and interest, but also the functioning of the adult as a tutor. It was his/her task to encourage the children to think independently and to trust their own conclusions and opinions and express them. By

<sup>&</sup>lt;sup>4</sup> Since the phenomena studied in relation to children of preschool and early school age are still little known, the research was treated as preliminary to the development of proper research. At this stage it was important to eliminate flaws in the research procedure. Twenty children aged 6–8 years of age participated in the preliminary phase of the study; all children attended a rural elementary school.

<sup>&</sup>lt;sup>5</sup> The children's encounters with this art form occurred directly and, through the experience of one of the researchers, using virtual field trips.

observing the children's behaviour, referring to their verbal expressions and "dialoguing with others" it was possible to notice that the acquisition of more and more visual and communicative experiences also led to the emergence of qualitative competences, acquired in relation to the creations of visual art.

## THE TEACHER AS A PERSON STIMULATING THE DEVELOPMENT OF A CHILD'S VISUAL LITERACY

In the context of the considerations made earlier, it seems obvious that the new reality saturated with visuality requires from early education teachers new skills and creating new qualities in the child's learning process. Despite the assurances that children are prepared to active and conscious participation in the culture of the image, teachers' indications regarding the use of active perception and creative expression of a child in education do not provide grounds for drawing a conclusion that would confirm the fact that the child's activity in this area is conducive to its visual literacy because the activities undertaken by teachers do not form a strong basis for shaping the visual competences of a modern child. This is because they are not anchored in the changing space of cultural reality, in which the visual arts propose a vision of not one real world, but many different worlds (real, virtual, specific "coupling of these worlds"), marked by contradictions and often representing fragmentary points of view. As Sikorska writes,

(...) the language of seen images is supplemented with new repertoires of unseen, invented and created images, that are, in fact, things, for example, "drawn" or "painted" with the use of computer programs that create specific aesthetic constellations in technological systems. The image becomes a specific aesthetic construction, a technological work of art, the semiotics of which results internally from the relationship of pixels, and externally it is created through hypertextual pointing to other documents. (Sikorska 2021)

Reading the language of images also means learning how to read emoticons, or emoji – simple signs with which you can express your emotions, describe situations, and identify objects. Whether we like it or not, these specific signs and images have become part of everyday communication, including children's communication. More and more often, if someone wants to convey something to someone else, or even attract someone's attention, it is mainly visual stimuli that are used.

The emerging and developing new visual arts, reflecting our complex reality, allow teachers to create such an educational space (real and virtual) in which a child learns, among others, to see not only the separateness of arts, but also the tendency to their integration, convergence and mutual permeation, creating interdisciplinary forms of expression, because contemporary visual arts, like it happens in life, combine sounds, gestures, colours, screams, noises, music, dance, acrobatics, poetry, painting, becoming multimedia arts.

In such a situation, it becomes important to prepare the child for full and valuable contacts with visual arts, learning how to perceive and interpret them, but also the possibility of experimenting with the "visual message" by experiencing the diversity of visual content (e.g. by creating an image with the use of the computer), because in this way we shape the competences constituting the basis of "visual literacy".

The basis of all pedagogical activities in this area should be the knowledge of the developmental process of a child at preschool and early school age, of his/her individual potential connected with the zone of current and nearest development, but also the knowledge that the process of perception is a type of cognition which is the basis for visual judgements. Perceptions allow the child to define objects, meanings, or use features, but perceptual evaluation is always an evaluation shaped by the sum of experiences recorded in memory. It therefore seems important to organise the quality of perceptions in such a way that they provide the child with rich and useful sources of information (Gibson 1979). Unfortunately, the lack of basic skills related to sensory learning makes it impossible to evaluate the child's perception of the content and form of an image. It makes the individual a passive recipient, who becomes helpless in the face of the stimuli attacking him, unable to perceive and analyse phenomena, and thus unable to respond to them according to his own system of values.

In the process of education through visual arts (taking into account perception and expression), the teacher is able to effectively prepare the child for "visual literacy", this is where we can: (1) develop visual competences shaped by visual perception associated with other experiences arising in contact with the image (or the configuration of objects in space), (2) shape the skills of decoding a symbol and giving it metaphorical meanings, (3), compose one's own signs and figurative visual messages, (4) learn to intersemiotically translate an image into a verbal message and *vice versa*, and (5) find and valorise visual information (Pettersson 2000). These tasks can only be accomplished, however, if the teacher acts as a "catalyst for children's independent learning" (Dembo 1997, p. 315). This is connected with: (1) the ability to motivate children to cognitive activity based on the selection of tasks using the reception of images and expression that do not require skills greater than developmentally available, (2) paying attention that the process of "encounter" with visual arts takes into account the essence of learning in preschool and early school age children, i.e., the way in which they move "from learning according to their own curriculum" to "reactive learning", (3) the "reading" of images by the child take place as a result of mental elaboration (transformation), which consists in understanding the meaning of the received content, linking it with the knowledge previously possessed by the child, noticing the relations in which individual visual forms remain (the essence is dialogue child – adult, but also child – other children).

Therefore, the teacher should be flexible not only in the selection of proposals, but also the ability to individualize activities in accordance with the expectations and possibilities of children, because interest is "the axis around which the entire education system should rotate (...)" (Piaget, as cit. in: Wadsworth 1998, p. 174). While agreeing with Antonina Gurycka, pointing out that a child can only be interested in what is cognitively available to him (Gurycka 1989), it should be emphasized that stimulating the development of a child's visual literacy competences also requires adjusting tasks to the child's abilities designated by the zone of the nearest development, and thus the teacher's use of a scaffolding<sup>6</sup> strategy. According with Vicki Caruana (2012), it is extremely important in order to provide children with consistent support to define an area (zone) between what the child can achieve on his own and what the same child can achieve with help. This aspect is also important when we enter the world of digital art with a child - here it is particularly important to build a procedural scaffold that will help children use the tools available to them, a conceptual scaffold that will help them determine what they should take into account during "reading images" (this leads them to prioritize basic concepts), a strategic scaffold that suggests alternative ways of coping with problems to children, as well as a metacognitive scaffold that guides children in the thinking process and helps them in self-evaluation (Jumaat, Tasir 2014). Learning through visual arts in this sense maximizes the child's ability to go "beyond the information provided". It is always good to keep children's ideas and narratives in mind as well, because as Jessica Hamlin states "sometimes we underestimate what young children can talk about and do, and read in different places" (Hamlin cited by: Lesser 2016).

### CONCLUSIONS

Using visual arts in building the foundation for a child to become a "visually literate" becomes a specific challenge because human sensory cognition is only an approximation, a projection of the brain, and not the objective truth about the world. Human eyesight alone is not enough to get to know the world around us. Nowadays, if we think in the context of visual perception, we know that the eye is no longer the only source of this perception – devices adapted not only to recognize shapes, but also to

<sup>&</sup>lt;sup>6</sup> Scaffolding in this case refers to a variety of ways to stimulate and support a child that allow for better understanding and ultimately greater independence in the process of learning visual literacy. The term itself can be related to the following descriptive metaphor: teachers, by using visual arts and creating diverse reading environments (real, virtual), provide children with successive levels of temporary support that help them reach a higher level of understanding and acquiring skills that they would not be able to achieve without help. Like the physical scaffolding, support activities are removed when no longer needed and the teacher gradually transfers more "responsibility" for the learning process to the child/learner.

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the comprehensive interpretation of the field of view have appeared. What happened is an automation of perception. Man's contact with reality has changed significantly: things disappear, and devices produce perceptions. The nature of visuality is also changing – from the real to the virtual dimension. The difference between the reality of an image and its illusion as well as between reality and imagination is blurring. The multitude of appearing images makes it difficult to evaluate them because of their authenticity, perfection, or originality. The image in its many varieties and types has become the basic element of the culture of the contemporary world, and as Andrzej Zwoliński (2003) emphasizes, the durability of the image and its value have become relative. The expansion of the image in today's culture seems to be a significant pedagogical problem because with the widespread flood of iconic representations, the use of light, movement and colour to represent the many shades of reality, it is necessary to master the visual language in order not to passively, unreflectively absorb "(...) images, words, real and imaginary events, turned into spectacles that seduce the imagination" (Osęka 1979, p. 3).

Considering the quality and effectiveness of various strategies of educating children, it may be worthwhile to return to thinking about the potential of education through visual arts. "Encounters" with optical arts (in their many versions) and undertaking creative activities lead the child towards an active analysis of images, searching for hidden contents and contexts inscribed in visual messages, but they also encourage the child to express his or her own opinion, learn, negotiate meanings and the fact that there is no single, right interpretation. It is worth emphasizing that the child, although at the beginning of the road leading to visual literacy, can learn to "critically engage the world in a dialogical encounter with others" (Leonard, McLaren 2002, p. 1).

### REFERENCES

#### Literature

Bresler L. (1998). "Child Art", "Fine Art," and "Art for Children": The Shaping of School Practice and Implications for Change. *Arts Education Policy Review*, 100(1), pp. 3–10.

Dembo M.H. (1997). Stosowana psychologia wychowawcza. Warszawa: WSIP.

Dorfles G. (1973). Człowiek zwielokrotniony. Przedm. I. Wojnar. Warszawa: PIW.

Frey N., Fisher D. (2008). Teaching Visual Literacy. Thousand Oaks: Corwin Press.

Gardner H., Davis K. (2013). *The App Generation: How Today's Youth Navigate Identity, Intimacy, and Imagination in a Digital World.* New Haven: Yale University Press.

Gurycka A. (1989). Rozwój i kształtowanie zainteresowań. Warszawa: WSiP.

Kabali H.K., Irigoyen M.M., Nunez-Davis R., Budacki J.G., Mohanty S.H., Leister K.P., Bonner R.L. Jr. (2015). Exposure and Use of Mobile Media Devices by Young Children. *Pediatrics*,

136(6), 1044–1050.

- Krauze-Sikorska H. (2006). Edukacja przez sztukę. O edukacyjnych wartościach artystycznej twórczości dziecka. Poznań: Wyd. Nauk. UAM
- Krauze-Sikorska H. (2019). Outsider Art. Sztuka, która pozwala poznać świat Innego. In: B. Kurowska, K. Łapot-Dzierwa (red.), *Kultura – Sztuka – Edukacja*, t. 3 (pp. 179–193). Kraków: Wyd. Nauk. UP.
- Kummerling-Meibauer B., Meibauer J. (2005). First Pictures, Early Concepts: Early Concept Books. *The Lion and the Unicorn*, 29(3), 324–347.
- Leonard P., McLaren P.(2002). Paulo Freire: A Critical Encounter. New York: Routledge.
- Mirzoeff N. (2012). Prawo do patrzenia. In: I. Kurz, P. Kwiatkowska, Ł. Zaremba (red.), *Antropologia kultury wizualnej* (pp. 738–746). Warszawa: Wyd. UW.
- Osęka A. (1979). Dialog z dzieckiem. Projekt. Sztuka wizualna i projektowa. Warszawa: Wyd. Nauk. PWN.
- Patzlaff R. (2008). Zastygłe spojrzenie. Fizjologiczne skutki patrzenia na ekran a rozwój dziecka. Kraków: Oficyna Wydawnicza Impuls.
- Regulation of the Minister of National Education of February 14, 2017 on the core curriculum for pre-school education and the core curriculum for general education for primary school, including for students with moderate or severe intellectual disabilities, general education for lower secondary vocational school, general education for special preparatory school and general education for post-secondary school (Journal of Laws of 2017, item 356).
- Sikorska J. (2021, in press). Digital Art w poszukiwaniu różnych form wyrazu artystycznego w kulturze nowych mediów. *Rocznik Lubuski*.
- Sikorska J., Krauze-Sikorska H. (2021, in press). Children and Adolescents As Creators and Recipients of "New Art". Significance of Graffiti, Street Art and Net Art.

Wadsworth B.J. (1998). Teoria Piageta – poznawczy i emocjonalny rozwój dziecka. Warszawa: WSiP.

- Yenawine P. (2013). Visual Thinking Strategies: Using Art to Deepen Learning across School Disciplines. Cambridge: Harvard Education Press.
- Yu L., Nagai Y. (2020). An Analysis of Characteristics of Children's Growth through Practical Art. *School of Knowledge Science, Healthcare*, 8(109), pp. 1–16.
- Zwoliński A. (2003). Słowo w relacjach społecznych. Kraków: Wyd. WAM.

#### Netography

- Bąk A. (2015). Korzystanie z urządzeń mobilnych przez małe dzieci w Polsce. Wyniki badania ilościowego. Fundacja Dzieci Niczyje. Retrieved from: http://www.mamatatatablet.pl/pliki/ uploads/2015/11/Korzystanie\_z\_urzadzen\_mobilnych\_raport\_final.pdf (access: 16.03.2021).
- Caruana V. (2012). Scaffolding Student Learning: Tips for Getting Started. Retrieved from: http://www.facultyfocus.com/articles/instructional-design/scaffolding-student-learning-tips-for-getting-started/ (access: 16.03.2021).
- Jumaat N.F., Tasir Z. (2014). Instructional Scaffolding in Online Learning Environment: A Meta-Analysis. Proceedings of the IEEE. Retrieved from: https://www.researchgate.net/publication/269033099\_Instructional\_Scaffolding\_in\_Online\_Learning\_Environment\_A\_Meta-analysis (access: 16.03.2021).
- Housen A. (1999). *Eye of the Beholder: Research, Theory, and Practice.* Retrieved from: https:// vtshome.org/wpcontent/uploads/2016/08/5Eye-of-the-Beholder.pdf (access: 9.03.2021).

Education Through Visual Arts in the Process of Preparing a Child in Middle and Late Childhood...

- Housen A. (2002). Aesthetic Thought, Critical Thinking and Transfer. *Arts and Learning Research Journal*, *18*(1), pp. 99–132. Retrieved from: https://citeseerx.ist.psu.edu/viewdoc/download?-doi=10.1.1.467.3752&rep=rep1&type=pdf (access: 19.03.2021).
- McCrindle M., Fell A. (2020). *Understanding Generation ALPHA*. Retrieved from: https://www.researchgate.net/publication/342803353\_UNDERSTANDING\_GENERATION\_ALPHA (access: 15.02.2021).
- Lesser C. (2016). *How to Teach Your Children to Care about Art*. Retrieved from: https://www. artsy.net/article/artsy-editorial-how-to-teach-your-children-to-care-about-art (access: 28.06.2021).
- Pettersson R. (2000). *Literacies in the New Millennium*. Conference Media and Education. University of Adam Mickiewicz, Poznań, April 8–11. Retrieved from: https://www.researchgate.net/publication/281839555\_Literacies\_in\_the\_New\_Millennium (access: 15.03.2021).
- Williams A. (2015). Meet Alpha: The Next 'Next Generation'. *New York Times*. Retrieved from: https://www.nytimes.com/2015/09/19/fashion/meet-alpha-the-next-next-generation.html (access: 19.03.2021).