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Evaluation of Art of Visually Impaired People by Children and Adults

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The aim of the study was to determine whether the age of the audience of an exhibition influences the aesthetic preferences for artistic products created by visually impaired people. The research was conducted with the aim of finding an answer whether there are any differences in the preferences of different categories of artworks created by artists who are blind or visually impaired. The research consisted in the evaluation of raised-line drawings, photographs, sculptures and a tactile picture book. These artistic products were presented in an art gallery. The evaluations were made on a 5-point scale, where the respondents indicated how much they liked the artworks that they saw. 118 people participated in the study, including 80 children and 38 adults. It turned out that age and type of art exerted interactive impact on the aesthetic evaluation. Age differences in aesthetic preferences were found in reference to drawings and the picture book. Visual art created by people with sight impairment was evaluated very positively.

KEY WORDS: visual impairment, visual art, art evaluation, aesthetic preference

Introduction

The attitude to people with disabilities has been changing throughout the years. On the one hand, it turns out that on the international scale, the society's stance towards such persons is becoming more friendly and accepting¹. On the other, domestic studies show that positive stances towards people with disabilities are not frequent among Poles². Studies conducted by Orłowska³ indicate that persons with disabilities are perceived positively and negatively in an equal degree. On the other hand, according to data collected by Instytut Badania i Rozwoju Aktywności Społecznej (Institute for Research and Development of Social Activity)⁴ persons with disabilities see themselves as unfavourably perceived by the society. Larkowa's studies may offer an explanation for diverging impressions of people with disabilities as compared to the society's declarations about them⁵. Larkowa draws attention to the fact that declared stances of people which are most often positive, are different than the non-verbalised ones, which are, in turn, negative. The most frequent cause of reluctance towards people with disabilities are stereotypes, which are manifested in a negative emotional attitude, erroneous impressions and lack of knowledge about the needs of such persons. Knowledge pertaining to independent functioning and potential of people with visual impairment is quite limited in the society. This is probably why visual impairment is considered

¹ G. Berkson, *Intellectual and physical disabilities in prehistory and early civilization. "Mental Retardation"* 2004, No. 42(3), pp. 195–208.

² M. Zaorska, E. Andrulonis, *Postawy społeczne wobec osób niepełnosprawnych. „Wychowanie na co dzień"* 2006, No. 7–8 (154–155), pp. 20–23.

³ M. Orłowska, *Postawy Polaków wobec osób niepełnosprawnych*, „Szkoła Specjalna" 2001, No. 4, pp. 208–212.

⁴ Instytut Badania i Rozwoju Aktywności Społecznej, *Wspólnie na rzecz integracji. Diagnoza preferencji, oczekiwań i potrzeb niepełnosprawnych mieszkańców Poznania*, 2010. Downloaded from: <http://www.poznan.pl/mim/hc/diagnoza-preferencji-oczekiwan-i-potrzeb-niepelnosprawnych-mieszkancow-poznania,p,22190,22194,22474.html>

⁵ H. Larkowa, *Postawy społeczne wobec osób z odchyleniami od normy*, [in:] *Pedagogika rewalidacyjna*, ed. A. Hulek, Wydawnictwo PWN, Warszawa 1980, pp. 478–491.

one of the most threatening disabilities, related to dependence on others and feeling of insecurity⁶. These conclusions are supported by Czerwińska's studies⁷ conducted among school youth. In a text with unfinished sentences, young people entered negative opinions pertaining to blind people in the majority of fields. This study showed slight knowledge about visually impaired people and negative consequences of insufficient school education with respect to disabilities.

The natural need of children is to establish relations with peers. However, children with disabilities experience difficulties in establishing and maintaining friendship. Children's stances towards blind peers are often a reflection of stances presented by parents and the society in general⁸. Marzec⁹, on the basis of her studies, pinpoints the fact that if models of relations with peers are formed during childhood, then it is possible to use it for future interactions with people with disabilities. It is known that pre-school children would not be willing to have a visually impaired child as a play companion¹⁰. Palak was studying the sociometric position of visually impaired students in general schools¹¹. Based on her studies, it may be indicated that only 20% of visually impaired children are

⁶ R. Reina, V. Lopez, M. Jiménez, T. García-Calvo, Y. Hutzler, *Effects of awareness interventions on children's attitudes toward peers with a visual impairment*, "International Journal of Rehabilitation Research" 2011, No. 34(3), pp. 243-248.

⁷ K. Czerwińska, *Obraz osób niewidomych w opiniach dzieci w wieku wczesnoszkolnym – komunikat z badań*, „Niepełnosprawność i Rehabilitacja” 2011, No. 1, pp. 46-54.

⁸ E. Skoczylas, *Dziecko z dysfunkcją wzroku w integracyjnym systemie kształcenia*, [in:] *Uczeń ze specjalnymi potrzebami edukacyjnymi w środowisku rówieśniczym*, ed. E. Domagała-Zyśk, Wydawnictwo KUL, Lublin 2012, pp. 93-110.

⁹ E. Marzec, *Modyfikacja postaw wobec osób z dysfunkcją wzroku*, [in:] *Postawy wobec niepełnosprawności*, ed. L. Frąckiewicz, Wydawnictwo Uczelniane AE, Katowice 2002, pp. 63-78.

¹⁰ S.-Y. Hong, K.-A. Kwon, H.-J. Jeon, *Children's Attitudes Towards Peers with Disabilities: Associations with Personal and Parental Factors*, "Infant and Child Development" 2014, No. 23(2), pp. 170-193.

¹¹ Z. Palak, *Uczniowie niewidomi i słabowidzący w szkołach ogólnodostępnych*, Wydawnictwo UMCS, Lublin 2000, p. 155.

accepted by peer groups. Majority of blind children (63.3%) are in a socially disadvantaged situation. 33.3% of blind and visually impaired students covered by the study were isolated by fully-able peers and 30% of them experienced rejection. On the other hand, Zielińska's studies¹² conducted among high school students on the one hand show frequent (68.2%) declarations of positive attitude to peers with disabilities and on the other rare (22%) declarations of readiness to befriend a student with disabilities. Comparative studies on stances of students from the Netherlands and Poland¹³ show that Poles are less tolerant with respect to people with disabilities, which results from negative experiences in interactions with people with disabilities or lack of such experiences. Summing up, the aforementioned studies show that in spite of the fact that the attitude towards people with disabilities is changing and becoming more positive, yet stereotypes caused by lack of knowledge still create a situation in which both children and adults are not willing to maintain contacts with people with disabilities. Meanwhile, a change in the attitude may be triggered by information and awareness-raising activities. Pielecki examined changes in attitudes among middle school students¹⁴. In his studies, the most efficient modes of expanding knowledge and change of attitudes were film screenings; the greatest increase of knowledge after an awareness-raising action was recorded with respect to sensory disabilities (sight, hearing).

Visually impaired and blind people may independently move around the city, set up a family, be successful in professional life, and also be fulfilled creatively. It is interesting to note that the areas

¹² M. Zielińska, *Postawy młodzieży licealnej wobec niepełnosprawnych rówieśników*, Wyższa Szkoła Pedagogiczna im. T. Kotarbińskiego w Zielonej Górze. Unpublished master's thesis, Zielona Góra 2000.

¹³ B. Papuda-Dolińska, *Postawy wobec osób z niepełnosprawnością: na podstawie opinii polskich i holenderskich studentów*, „Przegląd Naukowo-Metodyczny. Edukacja dla Bezpieczeństwa” 2012, No. 4, pp. 129-143.

¹⁴ A. Pielecki, *Zmiany postaw młodzieży wobec osób niepełnosprawnych*, Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2013.

of their creativity are often the so-called visual arts¹⁵, and the selected artistic media are, for example, raised-line drawings (the first promoters of the view that even blind people can draw were John Kennedy¹⁶ on the international arena and Wanda Szuman in Poland)¹⁷, sculptures¹⁸ or photos¹⁹.

According to studies, reception of fine art works of visually impaired artists is excessively positive - as if the viewers did not believe in the authors' potential and accepted them not account of the fact that they liked them, but due to the fact that they were created without the use of eyes, which may be considered reception through the stereotype of the author's disability²⁰. Such stereotypical reception is revealed already at the stage of looking at the artwork, which was shown in eye-tracking studies: the power of correlation of the time of eye fixation in the same regions of interest in respondents convinced about the disability of the author of the photograph was higher than in people who were not told about the photographer's disability²¹. In popular studies pertaining to the aesthetic perception via the stereotype of the author's disability, neither Niestorowicz²² nor Szubielska with her team²³ presented the

¹⁵ M. Szubielska, E. Niestorowicz, *Sztuki wizualne oczami niewidomych*, "Fragile" 2017, No. 1(35), pp. 36-40.

¹⁶ J.M. Kennedy, *Drawing and the blind: Pictures to touch*, CT, Yale University Press, New Haven 1993, pp. 95-126.

¹⁷ W. Szuman, *O dostępności rysunku dla dzieci niewidomych*, Państwowe Zakłady Wydawnictw Szkolnych, Warszawa 1967, pp. 5-139.

¹⁸ E. Niestorowicz, *Świat w umyśle i rzeźbie osób głuchoniewidomych*, Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2007, pp. 38-40.

¹⁹ J. Rothenstein, *The Blind Photographer: 150 Extraordinary Photographs from Around the World*, Princeton Architectural Press, London 2016.

²⁰ E. Niestorowicz, *Świat w umyśle i rzeźbie osób głuchoniewidomych*, Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2007, pp. 231-235.

²¹ M. Szubielska, B. Bałaj, A. Fudali-Czyż, *Estetyczny odbiór fotografii poprzez stereotyp umysłowej niepełnosprawności twórcy*, „Psychologia Społeczna” 2012, No. 23(4), pp. 372-378 - in the studies, the authors did not examine the stereotype of a visually impaired person, but an intellectually impaired person.

²² E. Niestorowicz, *Świat w umyśle i rzeźbie osób głuchoniewidomych*, Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2007, pp. 231-235.

respondents with original artworks, but only their reproductions in the form of photographs. The author of this study was interested in the perception of art created by blind and visually impaired people presented in an actual gallery. In such a situation, the viewers have a chance to contemplate properly exhibited originals of artistic products which, on account of being located in an exhibition space, receive the status of artworks.

The purpose of the study which was conducted at an exhibition of works of blind and visually impaired people was to provide an answer to the following questions: does the age of the exhibition recipients influence the evaluation of aesthetic preference for works created by blind and visually impaired persons? And also: are there any differences in preferences for various categories of artistic products created by visually impaired persons?

Study Method

118 persons took part in the study, including 80 children (from 5 to 7 years of age) from Lublin schools and kindergartens and 38 adults (between 18 and 22 years of age) - psychology students. Detailed information pertaining to the age, sex and numbers of individual age groups is contained in Table 1. Participation in the study was voluntary. Parents of all children expressed written approval for the participation of their children in the study.

The subject matter of evaluation was an exhibition entitled "Miasto, którego nie widać" ("An Invisible City") presented in the Labirynt Gallery in Lublin between 19 December 2017 and 28 February 2018 (cf. Fig. 1). The authors of works were visually impaired persons, students of the Special School and Education Centre for Disabled Children and Youth of Professor Zofia Sękowska in Lublin.

²³ M. Szubielska, B. Bałaj, A. Fudali-Czyż, *Estetyczny odbiór fotografii poprzez stereotyp umysłowej niepełnosprawności twórcy*, „Psychologia Społeczna” 2012, No. 23(4), pp. 372-378 - in the studies, the authors did not examine the stereotype of a visually impaired person, but an intellectually impaired person.

Table 1. Characteristics of respondents

	5 year-old children	6 year-old children	7 year-old children	Adults
Number	22	33	25	38
Number of women	7	16	13	33
Number of men	15	17	12	5
Age: arithmetic average	5.20	6.09	7.04	19.71
Age: standard deviation	0.25	0.20	0.14	0.73

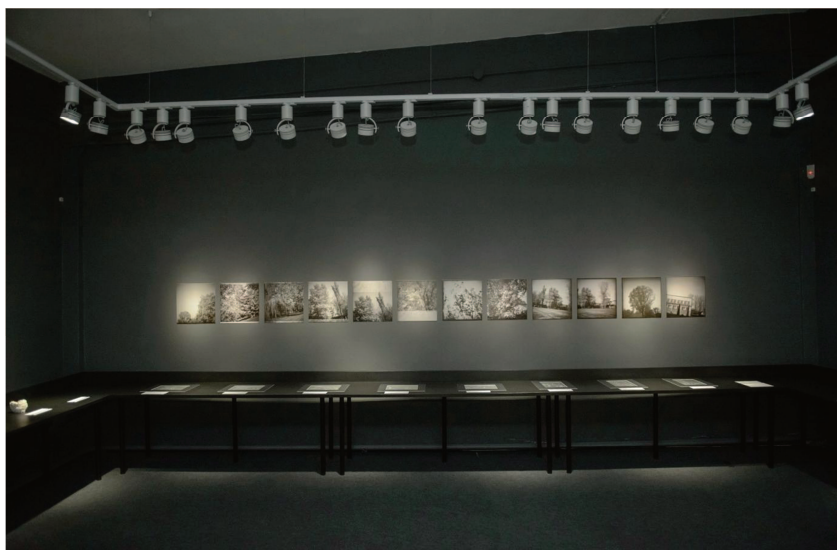


Fig. 1. View of exhibition "An Invisible City" (photograph by Wojciech Pacewicz, courtesy of the "Labirynt" Gallery in Lublin)

The following artworks were presented at the exhibition: twelve raised-line drawings on film (titles of works: "The NN Theatre", "Pekin Skyscraper", "A Walk", "Louis Braille and Selena Gomez. A Pair in the City", "Kunicki Central Station", "Try Not to Fall Over", "School", "Kraków Gate", "Rest", "Bus", "Wyścigowa",

“Multi-Functional Building”), a series of twelve black and white photographs made with the analogue Kiev camera (under a joint title “An Invisible City”), eight small uncoated ceramic sculptures (titles of works: “Fountain”, “Beijing”, “A Couple on a Walk”, “A Doll”, “Just a Tower”, “Resting on a Bench”, “Newest iPhone”, „Bus”) and a tactile picture book “An Invisible City” containing stories about life in the city (written on a Braille machine) and collage illustrations. All works were created in 2017.

The respondents viewed the exhibition in small groups, without reading the curatorial information, as well as without any guidelines on the part of educators working in the gallery or persons taking care of the exhibition (in case of questions, they were informed that answers would be provided after viewing the entire exhibition and its evaluation). Before viewing the artworks, the respondents were only told that the title of the exhibition was “An Invisible City” and that its authors were blind and visually impaired people (it was additionally explained to children that these are people who cannot see at all or who see very badly). After the visit, the artworks presented in the gallery were evaluated by every child on the response sheet. The sheet contained an image-based preference scale, consisting of five emoticons, arranged in a sequence from a clearly happy one (on the left) to the clearly unhappy one (on the right). The respondents’ task was to mark the emoticon that was the best illustration of the degree in which they liked the drawings, sculptures, photographs and the picture book presented at the exhibition. The respondents were given the following instructions: “Mark the degree in which you liked the presented drawings”, “Mark the degree in which you liked the presented photographs”, “Mark the degree in which you liked the presented sculptures”, “Mark the degree in which you liked the presented book.” Every child independently (or with slight assistance of the person conducting the study) marked the selected emoticon as a response to every question.

Independent variables in the study included: (1) Age (5 year-old, 6 year-old and 7 year-old children, adults) and (2) Type of artwork (drawings, photographs, sculptures, picture book). As a dependent variable, evaluation of the exhibition in the dimension of aesthetic

preference was examined; its index, expressed by a selected emotion, constituted a degree in which the artworks presented at the exhibition were liked by the respondents.

Study Results

Analysis of data was made with the use of the SPSS programme. The respondents' responses were coded in a numerical form, by assigning values from 1 to 5 to the scale of drawings (1 - a clearly unhappy face, 5 - a clearly happy face). Descriptive statistics of grades of individual categories of works made by the viewers in various ages are contained in Table 2.

Table 2. Evaluation of drawings, photographs, sculptures and a picture book by children in various ages and adults - descriptive statistics

Type of artwork	Age group	Grade: arithmetic average	Grade: standard deviation
Drawings	5 year-olds	4.68	0.57
	6 year-olds	4.39	1.06
	7 year-olds	4.28	0.89
	Adults	3.95	0.93
Photographs	5 year-olds	4.27	1.20
	6 year-olds	4.12	1.19
	7 year-olds	4.00	1.04
	Adults	4.13	1.04
Sculptures	5 year-olds	4.64	0.73
	6 year-olds	4.30	1.05
	7 year-olds	4.56	0.82
	Adults	4.34	0.91
Picture book	5 year-olds	4.00	1.54
	6 year-olds	3.88	1.52
	7 year-olds	3.48	1.48
	Adults	4.45	0.83

For the dependent variable of aesthetic preference, a mixed variance analysis was performed with intra-object factor Type of Artistic Product and inter-object factor Age. Statistically significant main effect of the Type of Artistic Product factor was ascertained, $F(2.64, 301.10) = 5.90$, $p = 0.001$, $\eta^2 = 0.05$ and significant interaction of factors Type of Artistic Product and Age, $F(7.92, 301.10) = 2.48$, $p = 0.013$, $\eta^2 = 0.06$. The main effect of the Age factor was not statistically significant $F(3, 14) = 0.92$, $p = 0.434$. In relation to the received interaction, simple effects were calculated by analysing differences in the evaluation of individual artworks by viewers in the same age (four one-factor variance analyses with repeated measures, conducted in the group of 5 year-old, 6 year-old and 7 year-old children and adults), as well as by analysing age differences in the evaluation of artworks belonging to a given category (four one-factor variance analyses conducted for the evaluation of: drawings, photographs, sculptures and the picture book).

In variance analyses with repeated measures, no effect of main factor Type of Artistic Product was ascertained in the group of 5 year-old viewers $F(2.11, 44.24) = 2.53$, $p = 0.089$, nor in 6 year-old viewers, $F(3, 96) = 1.37$, $p = 0.256$. Statistically significant main effect of factor Type of Artistic Product was ascertained in the group of 7-year old recipients, $F(3, 72) = 5.31$, $p = 0.004$, $\eta^2 = 0.17$, as well as adults, $F(3, 111) = 3.09$, $p = 0.030$, $\eta^2 = 0.08$. Based on the results of Bonferroni post-hoc tests, it was determined that 7-year old children liked sculptures more than the picture book (significance of post-hoc test: $p = 0.020$, cf. Table 2); other comparisons in pairs in this group of respondents were not statistically significant. On the other hand, adult viewers liked drawings significantly less than sculptures (post-hoc test significance $p = 0.032$, cf. Table 2) and picture book (post-hoc test significance: $p = 0.025$, cf. Table 2); other comparisons in pairs in this group of respondents were not statistically significant.

In single-factor variance analyses, no main effect of the Age factor was ascertained in the evaluation of photographs $F(3, 114) = 0.23$, $p = 0.873$, or sculptures, $F(3, 114) = 0.90$, $p = 0.446$. On the other

hand, Age significantly diversified both the evaluation of drawings, $F(3, 114) = 3.32$, $p = 0.022$, $\eta^2 = 0.08$, as well as the evaluation of the picture book $F(3, 114) = 2.81$, $p = 0.043$, $\eta^2 = 0.07$. Based on Bonferoni post-hoc test results, the following significant differences in the evaluation of works were ascertained: drawings were preferred more by 5 year-old children than by adults ($p = 0.018$, cf. Table 2), and adults liked the picture book more than 7 year-old children ($p = 0.033$, cf. Table 2).

In order to determine whether the evaluation of works seen at the exhibition significantly differs from the average evaluation on the scale of answers (i.e. neither positive nor negative) in individual groups of recipients, 16 t tests were conducted for one sample with

Table 3. Results of the t test for one sample of evaluation for drawings, photographs, sculptures and the picture book by children in various ages and adults (statistically significant differences are marked with “*”)

Type of artwork	Age group	Test result
Drawings	5 year-old children	$t(21) = 13.89$, $p < 0.001^*$
	6 year-old children	$t(32) = 7.56$, $p < 0.001^*$
	7 year-old children	$t(24) = 7.19$, $p < 0.001^*$
	Adults	$t(37) = 6.29$, $p < 0.001^*$
Photographs	5 year-old children	$t(21) = 4.97$, $p < 0.001^*$
	6 year-old children	$t(32) = 5.40$, $p < 0.001^*$
	7 year-old children	$t(24) = 4.80$, $p < 0.001^*$
	Adults	$t(37) = 6.68$, $p < 0.001^*$
Sculptures	5 year-old children	$t(21) = 10.56$, $p < 0.001^*$
	6 year-old children	$t(32) = 7.16$, $p < 0.001^*$
	7 year-old children	$t(24) = 9.51$, $p < 0.001^*$
	Adults	$t(37) = 9.10$, $p < 0.001^*$
Picture book	5 year-old children	$t(21) = 3.04$, $p < 0.001^*$
	6 year-old children	$t(32) = 3.33$, $p = 0.002^*$
	7 year-old children	$t(24) = 1.63$, $p < 0.117^*$
	Adults	$t(37) = 10.77$, $p < 0.001^*$

a test value equal to 3. Results of all tests are presented in Table 3. Only in the case of evaluation of the picture book by 7 year-old children no statistically significant difference was ascertained between the evaluation received in the study and the average evaluation of the applied measurement scale (which may be determined as neutral). In the case of other grades, they were significantly higher than the neutral grade (cf. Table 2).

Study: Discussion of Results

The purpose of the study was to find an answer to two questions: (1) Does aesthetic evaluation of art created by visually impaired persons change together with the viewers' age (children aged 5–7 and young adults were examined); (2) Does aesthetic evaluation depend on the category of artistic products seen (raised-line drawings made on special film, black and white photography, uncoated ceramic sculptures and a picture book containing text and tactile collages were taken into account)?

It was ascertained that the evaluation of visual works made by blind and visually impaired people to a significant degree depends on the interaction of factors such as age and type of artistic product. In other words, the fact of whether and in what manner the aesthetic preferences change with age depends on whether the object of evaluation are drawings, photographs, sculptures or a picture book, which were produced by visually impaired people.

Aesthetic evaluation by 5 year-old and 6 year-old children did not depend on the type of evaluated artistic product. This may testify to the fact that children aged 5 and 6 received all the works presented at the exhibition with equal enthusiasm – possibly on account of the fact that the visit in an art gallery was a great experience for them. Meanwhile, preference for artworks of both 7 year-old children and adults depended on the category of artistic product that was subject to evaluation. 7 year-old children liked the sculptures significantly more than the picture book. On the other

hand, adults liked drawings significantly more than sculptures and the picture book. Furthermore, it was determined that both the evaluation of photographs and sculptures did not significantly change with the age of respondents. Age differences in aesthetic preference were ascertained in reference to the drawings and the picture book. Five year-old children liked drawings significantly more than adults. On account of delay in drawing development of blind people as compared to fully-able people²⁴ drawings of blind authors in a formal aspect resemble drawings of small children which are, in turn, similar to the so-called geometric abstractions created by modern and contemporary artists. In an experiment devoted to reception of abstract art with the participation of children²⁵ it was found out that they liked works made by their peers than works created by professional artists more. Similarity of works made by blind people and children's sketches may explain higher preference for drawings made by blind people in the group of youngest children as compared to the preferences of adult viewers. On the other hand, adults liked the picture book more than 7 year-old children. This may be caused by the fact that in their reception of the picture book, the adult viewers were more focused on the content of texts than on collages illustrating them, whereas children paid attention to illustration (most of them could not read). Stories contained in the book referred primarily to problems of life in the city from the perspective of a person who cannot see, about spatial disorientation or losing way and fears related to it. Collages presented in the book may be predominantly described as "childish" – they were similar to the illustrations which could be encountered in the majority of books for small children. It is probable that adult

²⁴ M. Szubińska, E. Niestorowicz, B. Marek, *Jak rysują osoby, które nigdy nie widziały? Badania niewidomych uczniów / Drawing without eyesight. Evidence from congenitally blind learners*, „Roczniki Psychologiczne// Annals of Psychology” 2016, No. 19(4), pp. 659–700.

²⁵ J. Nissel, A. Hawley-Dolan, E. Winner, *Can young children distinguish abstract expressionist art from superficially similar works by preschoolers and animals?*, “Journal of Cognition and Development” 2016, No. 17(1), pp. 18–29.

recipients appreciated stories of visually impaired people, whereas the oldest group of respondent children did not like the illustrations as they were too infantile.

It is worth emphasising the fact that almost all evaluations of artworks of visually impaired persons by young and adult viewers may be considered positive. The exception is the evaluation of the picture book made by 7 year-old children, which may be determined as neutral (neither positive or negative). It would be interesting to find out whether such high grades result from a stereotypical approach to the creativeness of visually impaired people. A recipient may be convinced that artists who cannot see find it more difficult to be creative in the area of visual arts and if they produce something, they are evaluated excessively positively with a "correction" for their disability. It may also happen that high grades for artistic products resulted from the fact that they were presented in a real art gallery, where works of accomplished visual artists are presented on a daily basis. It is known that the context of the exhibition space increases the evaluation of art²⁶, because placing works in a gallery or a museum ennobles a work. Hypotheses pertaining to the fact whether reception of art of blind and visually impaired people is more influenced by concentration on the author's disability or location of artworks in an art gallery are worth verification in subsequent experiments on the reception of art of people with disabilities.

Recapitulation

Both children and adults positively evaluated almost all artworks presented at the exhibition, whose authors were blind and visually impaired persons (however, differences were also observed in preferences with respect to age and the type of artwork: some

²⁶ D. Brieber, M. Nadal, H. Leder, *In the White Cube: Museum Context Enhances the Valuation and Memory of Art*, "Acta Psychologica" 2014, No. 154, pp. 36–42.

works were evaluated in individual groups of children recipients and adults well whereas other very well). This result may be treated as an argument in favour of organising subsequent exhibitions of this type - thanks to similar initiatives fully able people will have an opportunity of learning what the creative potential of visually impaired artists amateurs is and, due to this, they may change their attitude towards those who have to live without the sense of sight. Such projects may exert impact on the recipients in the form of an awareness-raising intervention²⁷, expanding - beyond the area of school education (which turned out to be efficient in Polish conditions²⁸) – the possibility of educating the society about disabilities.

It is interesting to note that differences in preference for individual categories of artworks, namely drawings, sculptures, photographs and books, were revealed only in 7 year-old children, thence children who attend school, whereas younger children liked works created in various techniques in an equal degree. It is difficult to conclude whether the received results are related to cognitive and aesthetic development of a child or to fine art education offered in junior classes of primary schools. This issue is worth exploring in subsequent empirical studies pertaining to aesthetic perception of art by children.

It is also significant that activities in the area of visual arts may stimulate cognitive, social and emotional development of blind people²⁹. It seems that creativity in the area of visual arts may make an artist who does not see more sensitive to the visual and spatial aspects of surroundings in which the artist stays or which he/ she

²⁷ R. Reina, V. Lopez, M. Jiménez, T. García-Calvo, Y. Hutzler, *Effects of awareness interventions on children's attitudes toward peers with a visual impairment*, "International Journal of Rehabilitation Research" 2011, No. 34(3), pp. 243-248.

²⁸ A. Pielecki, *Zmiany postaw młodzieży wobec osób niepełnosprawnych*, Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2013.

²⁹ M. Szubielska, E. Niestorowicz, *Twórczość plastyczna jako forma wspierania rozwoju osób niewidomych i głuchoniewidomych*, [in:] *Rozwój i jego wspieranie w perspektywie rehabilitacji i resocjalizacji*, ed. D. Müller, A. Sobczak, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2013, pp. 89-104.

intends to visualise and is thus conducive to development of spatial imagination. In practice, this may translate to better spatial orientation and ease in independent movement. Paradoxically, activity in the area which may seem completely inadequate for a blind person may contribute to improvement of such person's quality of life.

Bibliography

- Berkson G., *Intellectual and Physical Disabilities in Prehistory and Early Civilization. "Mental Retardation"* 2004, No. 42(3), pp. 195–208.
- Brieber D., Nadal M., Leder H., *In the White Cube: Museum Context Enhances the Valuation and Memory of Art*, "Acta Psychologica" 2014, No. 154, pp. 36–42.
- Czerwińska K., *Obraz osób niewidomych w opiniach dzieci w wieku wczesnoszkolnym – komunikat z badań, „Niepełnosprawność i Rehabilitacja"* 2011, No. 1, pp. 46–54.
- Hong S.-Y., Kwon K.-A., Jeon H.-J., *Children's Attitudes Towards Peers with Disabilities: Associations with Personal and Parental Factors*, "Infant and Child Development" 2014, No. 23(2), pp. 170–193.
- Kennedy J.M., *Drawing and the Blind: Pictures to Touch*, CT: Yale University Press, New Haven 1993.
- Larkowa H., *Postawy społeczne wobec osób z odchyleniami od normy*, [in:] *Pedagogika rewalidacyjna*, ed. A. Hulek, Wydawnictwo PWN, Warszawa 1980, pp. 478–491.
- Marzec E., *Modyfikacja postaw wobec osób z dysfunkcją wzroku*, [in:] *Postawy wobec niepełnosprawności*, ed. L. Frąckiewicz, Wydawnictwo Uczelniane AE, Katowice 2002, pp. 63–78.
- Niestorowicz E., *Świat w umyśle i rzeźbie osób głuchoniewidomych*, Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2007.
- Nissel J., Hawley-Dolan A., Winner E., *Can Young Children Distinguish Abstract Expressionist Art from Superficially Similar Works by Preschoolers and Animals?*, "Journal of Cognition and Development" 2016, No. 17(1), pp. 18–29.
- Orłowska M., *Postawy Polaków wobec osób niepełnosprawnych*, „Szkoła Specjalna" 2001, No. 4, pp. 208–212.
- Pałak Z., *Uczniowie niewidomi i słabowidzący w szkołach ogólnodostępnych*, Wydawnictwo UMCS, Lublin 2000, p. 155.
- Papuda-Dolińska B., *Postawy wobec osób z niepełnosprawnością: na podstawie opinii polskich i holenderskich studentów*, „Przegląd Naukowo-Metodyczny. Edukacja dla Bezpieczeństwa" 2012, No. 4, pp. 129–143.
- Pielecki A., *Zmiany postaw młodzieży wobec osób niepełnosprawnych*, Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2013.

- Reina R., Lopez V., Jiménez M., García-Calvo T., Hutzler Y., *Effects of Awareness Interventions on Children's Attitudes Toward Peers with a Visual Impairment*, "International Journal of Rehabilitation Research" 2011, No. 34(3), pp. 243–248.
- Rothenstein J., *The Blind Photographer: 150 Extraordinary Photographs from Around the World*, Princeton Architectural Press, London 2016.
- Skoczył E., *Dziecko z dysfunkcją wzroku w integracyjnym systemie kształcenia*, [in:] *Uczeń ze specjalnymi potrzebami edukacyjnymi w środowisku rówieśniczym*, ed. E. Domagała-Zyśk, Wydawnictwo KUL, Lublin 2012, pp. 93–110.
- Szubielska M., Bałaj B., Fudali-Czyż A., *Estetyczny odbiór fotografii poprzez stereotyp umysłowej niepełnosprawności twórcy*, „Psychologia Społeczna” 2012, No. 23(4), pp. 372–378.
- Szubielska M., Niestorowicz E., *Twórczość plastyczna jako forma wspierania rozwoju osób niewidomych i głuchoniewidomych*, [in:] *Rozwój i jego wspieranie w perspektywie rehabilitacji i resocjalizacji*, ed. D. Müller, A. Sobczak, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2013, pp. 89–104.
- Szubielska M., Niestorowicz E., *Sztuki wizualne oczami niewidomych*, "Fragile" 2017, No. 1(35), pp. 36–40.
- Szubielska M., Niestorowicz E., Marek B., *Jak rysują osoby, które nigdy nie widziały? Badania niewidomych uczniów / Drawing Without Eyesight. Evidence from Congenitally Blind Learners*, „Roczniki Psychologiczne // Annals of Psychology” 2016, No. 19(4), p. 659–700.
- Szuman W., *O dostępności rysunku dla dzieci niewidomych*, Państwowe Zakłady Wydawnictw Szkolnych, Warsaw 1967.
- Zaorska, M., Andrulonis, E. *Postawy społeczne wobec osób niepełnosprawnych*. „Wychowanie na co dzień” 2006, No. 7–8 (154–155), pp. 20–23.
- Zielińska M., *Postawy młodzieży licealnej wobec niepełnosprawnych rówieśników*, Wyższa Szkoła Pedagogiczna im. T. Kotarbińskiego w Zielonej Górze. Unpublished master's thesis, Zielona Góra 2000.