The Perceived Aesthetic Experience in the Context of Tactile Art among Visually Impaired Individuals in The Philippines

Dennis A. Martillano

Department of Art Studies, University of the Philippines-Diliman, Quezon City, Philippines
E-mail: dennis.martillano@upou.edu.ph

Abstract

This paper aims to identify how aesthetic experience can be perceived in the context of tactile art among visually impaired individuals. Studies define aesthetic as something that concerns with beauty or the appreciation of beauty. The questions that naturally follow would therefore seem to be the following: How is beauty experienced through touch? More importantly, to what extent does tactile art contribute to aesthetic experiences? Consequently, this paper would also like to lay down the status of tactile art in the Philippines, the techniques used, materials, and the processes through which sighted artists conceptualize and create art forms for visually impaired students in the Philippine art context. A framework was used in this paper following a participant observation analysis, which was performed from different forms of sources including curation records and notes, participatory workshop for the blind and actual visits in a Special Education center. AESTHEMOS (or Aesthetic Emotions Scale) was utilized in this study in aligning the results of participants' observation analysis to the aesthetic emotions/feelings, leading to aesthetic experience. Results from this study show that when given a means to use different sensory systems, common manifestations among different form sources can be seen, which suggest the alignment of perceived aesthetic experience of visually impaired individuals to the aesthetic emotions of sighted individuals.

Keywords**:** *Tactile arts, Aesthetics experience, Aesthetic emotions, Visually impaired, Art studies, Participant observation*

1. Introduction

There has been a spotted history of making maps from wires and nails or embossed paper for the use of the blind. By the early nineteenth century, the Perkins School for the Blind in the United States had assembled a collection of tactile atlases for its students (Lopes, 1997). Nowadays, tactile graphic material for teaching and education (braille books, embossed letters, etc) of the visually impaired is becoming easier to access (Hatwell et al., 2003). In terms of art, tactile pictures and images (or tactile art in general) are being used to allow access to art among visually impaired individuals. A study compared three different methods and materials that are usually used in creating tactile art: (1) embroidered thread, (2) heated 'swell' paper, and (3) representation using three-dimensional objects (Ramsamy, 2016). The emergence of these tactile materials also poses a new and interesting dimension of aesthetics in the arts.

Aesthetics has always been associated with "vision and beauty". Visual experience is being emphasized as a breathtaking picture, a sublime landscape, a beautiful woman/man as an obvious link to aesthetics (Gallace & Spence 2011). This could not be surprising as most art works are visually available and are meant to be viewed by sighted people. However, for visually impaired individuals, aesthetics might be perceived differently as no visual senses will be used and only touch and/or auditory sensory can be utilized. It is in this context that tactile arts were introduced to allow access to arts for all by using the sense of touch.

Studies suggest the use of art adaptation strategies for visually impaired individuals. According to Pomapano (2007), the maximum benefit from art can be derived by visually impaired students by presenting a multisensory approach to learning about art. This approach allows individuals to acquire information from other sources of sensory input, and should include tactile diagrams, audio narratives, and interpretive sound-compositions. Pivac's (2017) study, on the other hand, enabled the participant's experience of selected works of art through explored tactile perception using translated paintings or blind emboss. Tactile art experience was measured as well as art expression and tactile self-assessment, in which

Proceedings of RSU Research Conference (2019)

the subject determined the intensity of experiencing the selected artwork during multiple experiences. These studies solidify the idea that visually impaired individuals may have a unique perspective and approach that overcomes the limitations of sight. It is important to understand that art is not only about a mere visual presence, but a complex experience that requires further exploration leading to better understanding of perceived aesthetics among them.

2. Objectives

The main objective of the study is to identify how aesthetic experience can be perceived in the context of tactile art among visually impaired individuals. Specifically, the study aims to understand the techniques, materials, and the processes through which sighted artists conceptualize and create art forms for visually impaired students in the Philippines' art context. Lastly, the study would like to analyze the perceived aesthetics experience by using different forms of participant observations, aligned with basic aesthetic emotions measures based from a literature.

3. Materials and Methods

Aesthetic experience is a complex phenomenon and not easily defined. Both works of art and observer participation are in the experience of the work of art. It is performed through the interaction between the characteristics of the work of art and the personality of the observer, and it depends on that interaction (Pivac et al., 2017). This could be more complex with tactile art were senses other than vision will be utilized

In this paper, methods and analysis to identify aesthetics experience was done in three distinct forms. The forms are as followed: (1) obtaining records from the curation public notes done by a trainee in Metropolitan Museum of Manila; (2) participation observation in the Accessibility for the Blind Workshop by the Touch the Artist's Vision Inclusivity & Accessibility Advocate Group in MET Museum; and (3) actual "see" test among visually impaired students using tactile arts from TouchBook Makabayan. A framework for this simple process can be viewed in Figure 1.

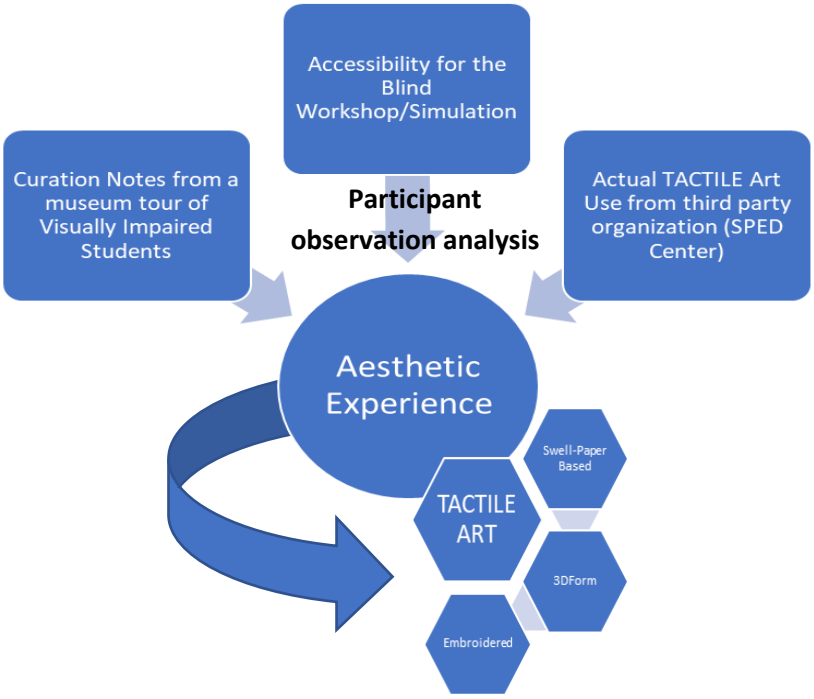


Figure 1 Framework of the method and analysis in identifying aesthetic experience

Aesthetics experienced recursively in any type of tactile arts will be synthesized from different form sources of participant observation analysis as seen in the framework. Participant observation methods provide researchers with ways to check for nonverbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other, and check for how much time is spent on various activities (Schmuck, 1997). Participant observation allows researchers observe events that informants may be unable or unwilling to share when doing so would be impolitic, impolite, or insensitive, and observe situations informants have described in interviews, thereby making them aware of distortions or inaccuracies in description provided by those informants (Marshall & Rossman, 1995).

In the course of solidifying the actual aesthetic experiences of visually impaired individuals, an attempt of collecting data and actual tactile art facts should be made. Tactile art in the Philippines is just recently emerging and supported by very few entities and organizations. In fact, it was only in 2008 where tactile arts were made accessible through the Touch the Artists' Vision program of Metropolitan Museum of Manila (MET), Philippines. The said program is a pioneer Museum Program for the Blind in the Philippines (Tatler, 2016).

MET offers the visually impaired the opportunity to also "see" paintings and have comparable experiences with the sighted museumgoers through special facilities that utilize the other senses. These facilities were initially available for two of the MET's exhibit: Postura, which features the portraits painted by Romulo Galicano and Filipiniana, wear designed by Patis Tesoro; and Sensorium, tactile works by Allision David. While the facilities are only available in selected exhibits, MET is planning to put accessibility in exhibits located within the three floors of the museum (Touch the Artist's Vision, 2016).

The new components for the unsighted individuals are composed of bilingual Braille captions (Filipino and English), bilingual audio guides, and tactile diagrams. The audio guides work in tandem with tactile diagram. A tactile art translates the actual painting using lines and varying textures produced on specialty paper. The audio then "guides" the hand of the blind in touching the diagram and describes the part of the painting being felt. Figure 2 demonstrates how a person interacts with tactile art in the museum.

Figure 2 Person "seeing" the art through tactile picture, guided by an audio

The Tactile Arts in the Touch the Artists' Vision were made by installation and visual artists including Allison Wong-David, who studied at the Slade School of Fine Arts and the Chelsea School of Fine Arts in London. Among her works featured in the Touch the Artists' Vision were George Revealed using Glazed stoneware, Wax George using wax and Ascending Portrait using Glazed stoneware. These are

three-dimensional forms of art that can be touched by visually impaired individuals. The pictures of the three arts mentioned can be viewed in Figure 3.

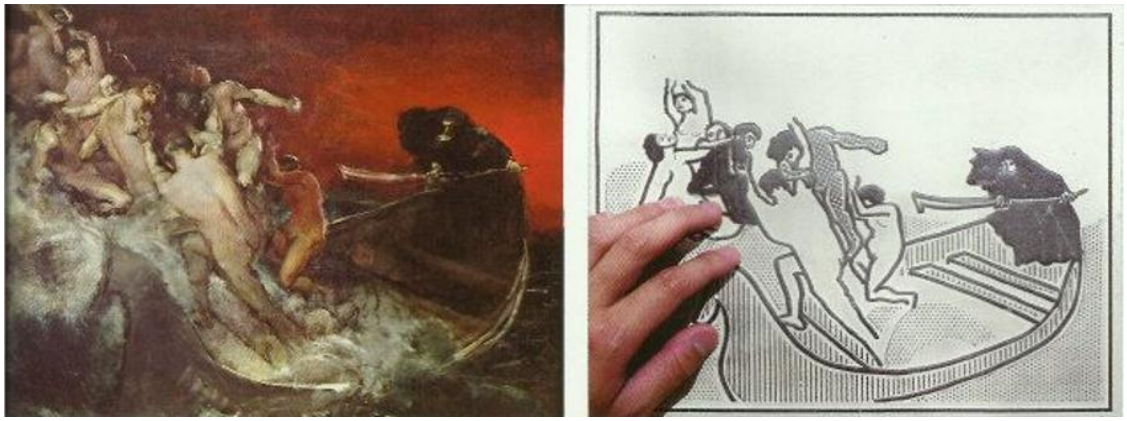
Figure 3 Tactile arts by Allison Wong-David

Other than a three-dimensional form, tactile arts are usually made by transferring painting and images into tactile images. A tactile image is an image scanned with the fingertips and is executed in relief. It is more difficult to interpret a picture of something of which you have no experience, whether that picture is a photograph, a drawing, a painting or a tactile image - that is to say, a relief image. A relief can assume many different forms and can be produced by several different techniques. For tactile art interpretation, they have to have a plain and simple form. Usually a tactile image is a transfer of a visual one using embossed lines and surfaces (Ericksson, 2016).

Swell papers were also used in some of the available tactile art in the MET Museum. A portrait of Antonio Paterno by Juan Luna was translated into a tactile art. Lines and surfaces were embossed to allow visually impaired individuals to “see” the portrait in a two-dimesional form. Lines allow the visually impaired students to follow object shape, while surface embossing fills enclosed shapes. However, no specific level of embossing or swelling was established to emphasize shades or any other elements in the art. Felix Hidalgo’s La barca de aqueronte was also translated into tactile art in swell paper. Figure 4 and 5 illustrate the translated tactile art of Luna and Hidalgo, respectively.

(a) (b)

Figure 4 (a) Antonio Paterno by Juan Luna, oil on panel; (b) Antonio Paterno, swell paper



(a) (b)

Figure 4 (a) Felix Hidalgo's La barca de aqueronte, oil on canvas;
(b) Felix Hidalgo's La barca de aqueronte, swell paper

Swell paper-based tactile arts are also supported by Touchbook Makabayan, a group that publishes tactile textbooks and tactile art for visually impaired students. In this paper, the researcher was able to access tactile art spearheaded by Annette Esparaz. These arts are limitedly accessible in some SPED Centers in the Philippines. However, compared to tactile arts available in swell paper in MET Musem, these tactile arts are more precise, and follow patterns that are at an intermediate level. These materials can be viewed in Figure 5.

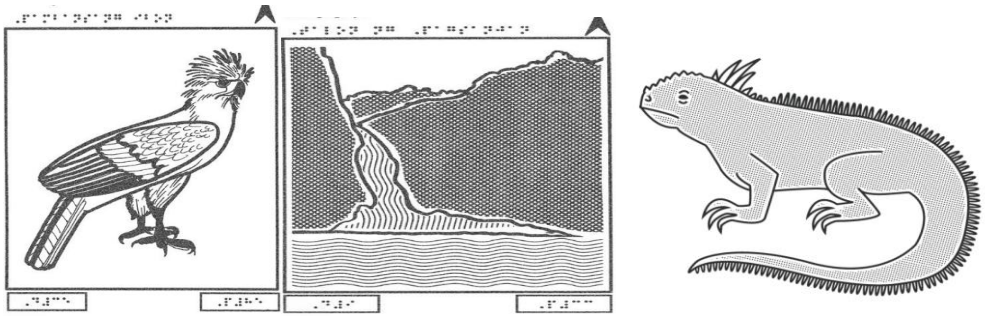


Figure 5 "Pambansang Ibon", "Ang Talon", and "untitled" by Tactile Artist Jacquie Jeyanes were embedded in touchbooks, following patterns of texture and symbols for hues and tones (touchbooks.ph, 2018)

4. Results and Discussion

4.1 Curation Trainee Public Notes in Metropolitan Museum of Manila, Philippines

A tour for a group of visually impaired students was managed by an art management student and a trainee from the MET Museum. A summary of curator's notes was obtained through the curatours' public website. The total number of about 89 participants were in the tour, although not provided exactly in the notes. Basing on the image in the website, about sixty-nine (69) are female and about twenty 20 are male. Actual count of visually impaired and sighted individuals were not included in the site. Both three-dimensional forms and swell-paper based tactile arts mentioned in the Materials and Methods section were included in the exhibit. Through the museum's audio and tactile guides, they were able to enjoy art classics such as Felix Resureccion Hidalgo's Christian Virgins, Ang Kiukok's Man on Fire, and even the pre-historic gold and pottery collection. With the help of Parent's Advocate for Visually Impaired Children (PAVIC) and the University of Santo Tomas National Service Training Program (UST NSTP) students, they were able to handle it successfully (Johanna, 2016). According to the curatour, the space design has immediately impacted visitors. It offers sublime experience of walking in a spacious museum, while having stops to scrutinize art works that are actually in front of them. Gallace and Spence (2011) emphasizes that the processing of tactile information, at least under certain conditions of stimulus presentation, cannot occur without active movement. In particular, research on the "tactile vision substitution systems" (TVSS) for the blind has shown that participants can correctly and "intuitively" perceive images taken by a video camera when they are free to move the camera in space (like putting in front or back). In MET Museum, tactile diagrams and tactile arts are located in front of the actual paintings to let visually impaired students feel that as If they are "seeing" and experiencing the art.

Figure 6 Actual tour of Visually Impaired Students in MET Museum from Curator's Notes. Images from ELEVATE EXPERIENCE: Leading the Blind

4.2 Participation Observation in the Accessibility for the Blind Workshop by the Touch The Artist's Vision Inclusivity & Accessibility Advocate Group in MET Museum

In Accessibility for the Blind workshop held last Oct 18, 2016 in MET Museum, a simulation was performed combining both sighted and blind guests. Tactile diagrams and an audio system was also provided, this time more on Amorsolo works. The response to the Touch the Artists' Vision was immediately encouraging. A memorable chat was transcribed in the event with the group of blind guests in an Amorsolo Exhibit. One confided in Filipino Language: "Ang galing pala talaga ni Amorsolo" translated in English as "Amorsolo is really good". "*Maganda yung Dalagang Bukid nya!*" or "*Dalagang Bukid*" is beautfiful in English. One replied: "*Sa tingin ko mas maganda yung landcapes nya kaysa sa Portraits*" translated as "I think landscapes were more beautiful that Portraits". Touch the Artists' Vision gave them a sense of inclusivity and confidence to participate in art talk and appreciate art in general. Blind guests were seen smiling when touching tactile arts and diagrams while looking in front of the actual painting and listening to the audio.

The process in the workshop involves cooperation between the two sensory modalities: kinesthetic, which provides information about the position of body parts and the body's behaviour; and tactile, which provides information about shapes, lines and textures (Arnheim, 1990). The accuracy of the object recognition and perceived aesthetics experience is increased when blind people are verbally directed in order to provide them with information focused on better understanding during exploration (Salihagić, 2011).

Figure 7 Paticipants in the Accessibility for the Blind

4.3 Actual "see" test among Visually Impaired students using tactile arts from TouchBook Makabayan

Three (3) students from a third party SPED center were exposed to swell paper based tactile art. Unfortunately, only tactile art from the Makabayan Touchbooks were used in the process. Students who explored the tactile arts were: an 8 year old male (partially blind), a 9 year old female (with glaucoma) and a 12 year old female (born blind). Reactions and responses from younger participants are slower when allowing them to "see" tactile arts. Students are more inclined in trying to recognize the subject first before appreciating it. During the participatory observation, young students also tend to use palms or the whole hands to "see" the tactile art. In a relief image, it is expected that lines, surfaces and textures are touched through fingers only which may pose different aesthetic experience. Immediate "wow" reactions on the other hand were transcribed while letting older students (teenagers) experience the tactile art. It was also noted that response to appreciation was manifested more in students who have low vision and/or not blind since birth whether young or old. However, since the experience in the tactile art is recursive as seen in the

framework, younger students who were blind since birth were seen enjoying and reacting verbally in the end as the SPED teacher also verbally discusses something about the tactile art.

Figure 8 The researcher and Visually Impaired Students in SPED Center "seeing " Tactile Art" from Touchbook Makabayan

Audio guides and tactile guides were used in participant observations in the first two form sources: Accessibility for the Blind Workshop and the Curation Trainee Public Notes. However, only tactile guides through swell papers were used in the 3rd form source (The "see" Test in SPED Center). No questioning or verbal interactions was made among participants but direct observations, based on participant observation data gathering were made in collecting data. These data called "Actual Manifestation" are in form of "utters" or verbal reactions, participants' movements, participants' facial reactions, and interaction in the art. Data from participant observations from the three (3) mentioned form sources were listed, combined, and summarized in tabular form and the analysis mentioned in three forms were aligned according to the The Aesthetic Emotions Scale. The AESTHEMOS scale used is based on the study "Measuring aesthetic emotions" (Schindler et al., 2017). According to the study, the AESTHEMOS can be used to assess either the intensity of aesthetic emotions (e.g., for studying momentary aesthetic experience or the experience of a specific stimulus, such as a picture, poem, piece of music, or film scene) or the frequency of experiencing aesthetic emotions during a more prolonged aesthetic experience (e.g., for studying an event as a whole, such as an entire art exhibition, theater performance, or a walk through nature). The scale used is not particularly inclined to either sighted or visually impaired individuals. Alignment of observations were done by identifying the Aesthetic feelings connected to utters, expressions, actions of participants, and status in general specified from the form sources and actual visit. About forty-two (42) aesthetic feelings were listed in the AESTHEMOS emotion scale but only about six (6), however, were used or manifested in the study. Table 1 shows the aesthetic feelings (from AESTHEMOS), manifestations, frequencies, and the sources of the participant observation leading to aesthetic experience.

Table 1 Aesthetic emotions based from AESTHEMOS

Aesthetic Feeling	Actual Manifestation	Frequency	Form Source
Motivated me to act, move	It offers sublime experience of walking in spacious museum, while having stops to scrutinize art works that are actually in front of them.	Not specified; mentioned only in the notes	Curation Trainee Public Notes
I found it Impactful	The space design has immediately impacted visitors	Not specified; mentioned only in the notes	Curation Trainee Public Notes
Amused me	*Utter: "Amorsolo is really good"*	2	Accessibility for the Blind Workshop
I found it beautiful	*Utter: "Dalagang Bukid" is beautfiful*	1	Accessibility for the Blind Workshop
Was mentally engaged	*Utter: "I think landscapes were more beautiful that Portraits"*	1	Accessibility for the Blind Workshop
Motivated me to act, move	Touch the Artists' Vision gave them sense of inclusivity and confidence to participate in art talk and appreciate art in general.	Not specified; implying all guests	Accessibility for the Blind Workshop
Made me happy; Motivated me to act, move	Blind guests were seen smiling when touching tactile arts and diagrams while looking in front of the actual painting and listening to the audio	Not specified; implying all guests	Accessibility for the Blind Workshop
Made me happy	younger students who were blind since birth were seen enjoying and reacting verbally in the long run as SPED teacher also verbally discusses something about the tactile art	2	Visually Impaired students using tactile arts from TouchBook Makabayan
Amused me	Tend to use the whole palm in experiencing the art. Immediate "wow" reactions upon touching and reacting verbally	3	Visually Impaired students using tactile arts from TouchBook Makabayan

As mentioned in the previous part of this paper, tactile art in the Philippines is just recently emerging and accessibility of Museum among visually impaired individuals is supported by very few entities and organizations. Base on the results of the participant observation, the manifested aesthetic feelings, aligned in the AESTHEMOS tool from different form sources can lead to perceived aesthetic experience. This suggest that more access to programs and interactive means using tactile diagrams, paint emboss and audio enabled paintings for visually impaired should be done in the Philippines to facilitate inclusivity among visually impaired individuals; be it in a museum or educational setup. In a study by Vaz et al. (2018), tests performed with 13 partially sighted and blind participants demonstrated very positive evaluations regarding interactive designs in museum. This includes a conceptualized exhibit according to the audio descriptions and enhanced the museum experience using educational assistive technology. In fact, in the United States and similar legislation around the world, art museums and other cultural institutions through legal mandates have undertaken to make their facilities and collections more accessible to people with all kinds of disabilities, including those related to sight (Levent et al., 2013).

5. Conclusion

The perception of the aesthetic experience in the context of tactile arts among visually impaired students can be affected by different factors such as the type of tactile art, visual impairment level and behavior of the individual "seeing" the art. Just like the complexity and multiple contextual of a visual art, tactile art can be as complex as visual stimulus. Also, we cannot expect that a visually impaired individual can experience tactile art fully and independently. Therefore, methods being applied today in the context of art in the Philippines that combines or integrates tactile diagrams of an adapted work of art with an audio guide to complement the whole tactile experience should be provided and be more accessible among visually impaired individuals (Pivac et al., 2017) also suggests that this kind of communication with the picture obtained by two compensating senses, touching and hearing, enables the blind person to experience the art to a certain extent.

Results from participant observations shows that when given a means to use a different sensory system, common manifestations among different form sources can be seen which suggest the alignment of aesthetic emotions of visually impaired individuals to the aesthetic emotions of sighted individuals. This suggests that aesthetic experiences are more than an output expressed by spoken or written language for visually impaired individuals but a manifestation of emotions

However, it is recommended for future work that the perceived aesthetic experience be established by integrating other instruments (other than AESTHEMOS) and other forms of sources that can warrant alignment of participant observation results to aesthetic experience. While this study was able to synthesize aesthetic emotions through basic participation observation from different form sources, comparison of the results from sighted individual was not established. For further research, it is suggested that a comparative study of manifested aesthetic emotions among different types of visually impaired individuals and sighted individuals be conducted to solidify alignments mentioned in the results of this study. This may also include the use of other qualitative measures or tools given a wider demography of participants and varied art materials and form. Finally, when given inclusivity, specially designed materials and a mean to explore just like sighted people, the perceived beauty of an art through touch can be completely experienced.

6. Acknowledgements

The researcher would like to acknowledge Metropolitan Museum of Manila, Philippines for the workshop information and the Carmona SPED Center, Philippines for allowing the visually impaired students in "seeing" the Swell paper-based tactile arts for the conduct of participant observation.

7. References

Arnheim R. (1990). Perceptual aspects of art for the blind. *The Journal of Aesthetic Education, 24*(3), 57-65.

Ericksson, Y. (2016). *How to make tactile pictures understandable to the blind reader*. The Swedish Library of Talking Books and Braille

Gallace, A. & Spence, C. (2011). Tactile aesthetics: Towards a definition of its characteristics and neural correlates, *Social Semiotics, 21(*4), 569-589.

Hatwell, Y., Streri, A., & Gentaz, E. (2003). Touching for knowing. Philadelphia, PA: John Benjamins Publishing Company

Johanna. (2016*). Elevate experience: Leading the Blind*. Retrieved from: http://curatour.blogspot.com/2015/09/elevate-experience-leading-blind.html

Levent, N., Kleege, G., and Pursley, J. M. (2013). *Guest editors' introduction: Museum experience and blindness*. Retrieved from: http://dsq-sds.org/article/view/3751/3252

Lopes, D. (1997). Art media and the sense modalities: Tactile pictures, *Dominic Lopes The Philosophical Quarterly, 47*(189), 425–440, doi.org/10.1111/1467-9213.00069

Marshall, C. & Rossman, G. B. (1995). Designing qualitative research. Newbury Park, CA: Sage.

Pivac, D., Tina, R., Ante Bilic, P. (2017). The art experience of a blind person, *Hrvatska revija za rehabilitacijska istraživanja, 53*, Supplement, 127-140.

Pomapano, J. R. (2007). *Teaching art to the blind :A study of chairs*. Retrieved from: http://teachersinstitute.yale.edu/curriculum/units/2001/2/01.02.07.x.html

Ramsammy-Iranah, S. et al. (2016). A comparison of three materials used for tactile symbols to communicate colour to children and young people with visual impairments. *British Journal of Visual Impairment, 34*(1), 54-71

Salihagić, B. Ž. (2011). *Relacije taktilne percepcije i funkcioniranja i nekih čimbenika u djece oštećena vida*. Unpublished master's thesis, University of Zagreb, Faculty of Education and Rehabilitation Sciences, Department of Visual Impairments.

Schmuck, R. (1997). Practical action research for change. Arlington Heights, IL: IRI/Skylight Training and Publishing.

Tatler, P. (2016). Accessibility for the Blind Workshop at the MET Museum. Retrieved from: https://ph.asiatatler.com/society/accessibility-for-the-blind-workshop-at-the-met-museum

Touchbook.ph. (2018). Retrieved from : http://www.touchbooks.ph/

Touch the Artist's Vision-Metropolitan Museum of Manila Philippines (2016). Retrieved from: https://metmuseum.ph/art-for-all/touch-the-artists-vision/

Vaz, R., Fernandes, P.O. and Veiga, A. C. R. (2018). Designing an Interactive Exhibitor for Assisting Blind and Visually Impaired Visitors in Tactile Exploration of Original Museum Pieces, Procedia Computer Sci, 138, 561-570. https://doi.org/10.1016/j.procs.2018.10.076