Factors in the Presentation Method of Museum Audio Guides Affecting Human Appreciation Behavior

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Abstract

Audio guides are used for appreciating works in museums. Although factors that influence such appreciation behavior have been studied, little is known about the effect of changing the audio guide presentation method when the viewer uses it. To understand the influence of audio guides on appreciation, this study conducted experiments to identify whether the audio guide presentation method affected viewers' appreciation behavior. The results demonstrated that changes in speaking speed and presentation timing affected appreciation behavior, whereas priming did not affect appreciation but affected moving behavior. In addition, we examined subjective impressions of appreciation. Consequently, in terms of speaking speed and presentation timing, which affect appreciation time, it became clear that certain conditions made people feel uncomfortable in the subjective evaluation. On the other hand, in priming factors that only affect moving time, no unusual impression was found in the appreciation itself. The findings suggested the possibility of automatically controlling the presentation method without decreasing satisfaction with appreciation.

Keywords: museum audio guide; appreciation behavior; speaking speed; priming; timing; subjective impression;

Introduction

Commentary on artwork can enhance the quality of appreciation (Leder et al., 2004). In the past, most museums only had explanatory notes attached to the paintings on display. Currently, larger museums use audio guides, renting audio guide equipment for a fee. Most guide equipment is operated manually, preventing viewers from focusing on appreciating. In recent years, an increasing number of museums have posted explanatory notes on their websites or used QR codes to allow viewers to read them on their smartphones. However, the process for QR code is as laborious as manual audio guide operation. A more advanced solution is auto-playing audio guides, which appear to be convenient for viewers. However, these guides could affect viewers' appreciation. In general, the advantage of auto-playing audio guides is that they do not require the viewer to operate a device, allowing them to concentrate on appreciating. A potential solution is using location-sensitive guides. While outdoor devices use Global Positioning System (GPS) to play back automatically(Liu et al., 2022), GPS is not sufficiently accurate for indoor devices. Therefore, indoor devices often use Bluetooth Low Energy (BLE) beacons[1] or provide information based on the location of the viewers' body. However, using only location data or orientation of body does not necessarily cater to viewer appreciation, as viewers may be engaged in other activities or unable to see the display. If auto-playing is not suitable for an individual's appreciating condition and preference, it may inhibit appreciation. In the future, more elaborate autonomy guides that consider an individual's body movements and cognitive state may appear. Therefore, it is important to understand how autonomous guides affect human appreciation behavior. However, it is unclear how the presentation of the audio guide used during the appreciation affects viewers' appreciation behavior. This study investigated the effect of audio guide presentation—particularly, speaking speed, presentation timing, and priming before appreciation—on human appreciation behavior. Moreover, this study examined subjective impressions for each factor in order to identify and discuss viewers' comfortableness with the audio guide when appreciating. One's perception of congestion and walking speed are related(Jia et al., 2022). Therefore it may be possible to avoid crowding issues by controlling guide presentation through an approach that does not affect appreciation or decrease satisfaction.

[1] https://acoustiguidemobile.com/

Related Work

Appreciation behavior has been studied mainly in the fields of psychology, art and engineering (Steven & Kerry, 2009; Yoshimura et al., 2012; Martella et al., 2017). Studies have shown that commentary on paintings enhances the quality of viewer appreciation (Leder et al., 2004); however, commentary contents vary between artists and paintings, including historical background, style of the artist, and intent of the painting. Moreover, the presentation of the title helps viewers understand paintings (Leder et al., 2006). Depending on the commentary content, the degree of effect that enhances the quality of appreciation may vary. Appreciation behavior includes appreciation and moving between exhibits. In addition, the characteristics of museum buildings, the characteristics of visitors, and degree of crowding vary depending on the museum environment (Choi, 1999). A previous study demonstrated that fatigue accumulates and behavior changes in the latter half of a museum visit (Davey, 2005). Moreover, characteristics of place, such as size of the space and height of the building, influence behavior (Castro et al., 2016). Some studies have shown that viewer behavior changes depending on whether the next exhibit is visible (Krukar & Dalton, 2020). Furthermore, exhibit placement affects viewer behavior (Brieber et al., 2014). Viewers' viewing behavior can be classified into several patterns such as "Ant," "Grasshopper," "Butterfly," and "Fish" (Zancanaro et al., 2007). Appreciation behavior may change depending on individual characteristics. For instance, studies of eye movements on works of art have found that novice and expert eye movements differ (Vogt & Magnussen, 2007). Art preferences may also affect one's gaze behavior (Shinsuke et al., 2004). This study aimed to clarify factors that influence appreciative behavior

In M. Goldwater, F. K. Anggoro, B. K. Hayes, & D. C. Ong (Eds.), *Proceedings of the 45th Annual Conference of the Cognitive Science Society.*

by focusing on guide presentation rather than commentary content, environment, and viewer attributes. Audio guides have evolved over the years and include not only automatically played location-based guides but also guides with agent characters (Kopp et al., 2005). The appearance of the character may influence appreciation behavior. Speech fillers and gestures reduce latency perception (Kum & Lee, 2022). Thus, the subjective perception of latency is affected by the presentation methods. However, few audio guides have virtual characters. It has been verified that the presence or absence of audio guides affects viewing behavior (Egawa & Kitajima, 2017). However,little is known about the effect of changing the audio guide presentation method when the viewer uses it. Thus, to examine factors that can be applied generically to evolving audio guides, this study focused on the presentation method of audio guidance and conducted a basic analysis of the effects of several factors on appreciating behavior. One factor that influences behavior is background sound. The effects of music in particular have been examined in previous studies; in particular, the effects of tempo on various cognitive processes have been studied (Kallinen, 2002; Leman et al., 2013). An example of applying this to marketing is a well-known study in which background music (BGM) was used to control the amount of time spent in supermarkets (Milliman, 1982). The sense of the tempo of stimulation may influence behavior. In addition, presentation timing may influence appreciation behavior. In the case of automatic systems, especially in the turn-taking of interactive communication systems, the effects of discrepancies between user expectations and system responses have been evaluated (Kanda et al., 2007). Research on dialogue systems has shown that the latency of a turn during dialogue affects the impression of a system. The timing of the onset of speech determines impressions regarding others and systems. Having some latency intentionally for a natural turn-taking or keeping a latency of less than two seconds can decrease discomfort (Miller, 1968). In addition to changing the presentation method of the audio guide, priming stimuli may affect appreciation behavior. Priming by the presentation of words has been shown to affect walking speed (Bargh et al., 1996). Presenting stimuli before appreciation may change appreciating behavior.

Experimental Procedure

Experiment1

Experimental method We created a pseudo-museum environment (Figure 1). and conducted an art appreciation experiment using an audio guide application created for this study. Subjects appreciated paintings while holding a smartphone with an audio guide application and wearing headphones. We measured how long it took the subjects to move and view each painting. After the experiment, we conducted a questionnaire survey regarding impressions of audio guide experiences for each condition, which included their usual art appreciating and experience of audio guides. Based on the opinions of the museum's exhibition experts,

Figure 1: Experimental environment. Subjects were instructed to appreciate a set of paintings in each condition.

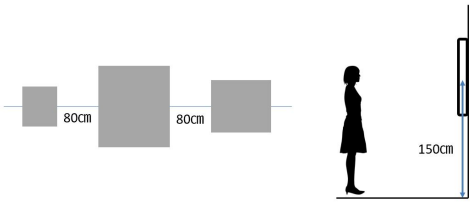

Figure 2: Arrangement of paintings. Intervals of paintings (Left) and height of a painting (Right)

paintings were placed at equal 80 cm intervals with a height of 150 cm from the floor to the center of the painting, with the center of the height being the same (Figure 2). The venue was 7.2 m wide and 22.2 m long. Subjects were instructed to appreciate the paintings through the route shown in Figure 3. Subjects moved the same distance in each route, and the order of conditions/routes was randomly assigned to each subject.

Paintings A total of 25 paintings were used in this experiment. The paintings were chosen from the Creative Commons of the Los Angeles County Museum of Art, and were both anonymous and explainable. We downloaded the paintings and printed them on paper for painting. The printed paintings were close to the original size. The types of paintings were landscape, portrait, still life, religious, and abstract. Paintings were assigned to each condition without bias.

Subjects A total of 19 adults (9 men and 10 women) participated. Using an in-house monitor database (about 8000 people), we conducted a preliminary survey to determine whether people were interested in seeing art; we selected those who said they were interested and were able to participate on the day of the experiment. Participants provided written in-

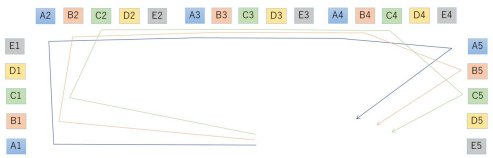

Figure 3: For each condition, one route was assigned from A to E. Subjects were asked to appreciate in a set order and not return. Routes were selected randomly for each subject.

Figure 4: Audio guide application. The application was installed to an android smartphone. User could start and stop the guide by using the GUI.

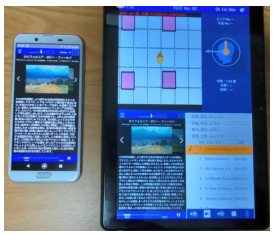

Figure 5: Remote control system. Experimenter could control the audio guide application (Right) in the smartphone using the remote control function in the tablet (Left). The audio guide application could be controlled both by a subject and an experimenter. The experimenter's operation was sent via a server to the subject's smartphone through web-socket communication using Wi-Fi.

formed consent in advance. All participants had experienced a museum, and ten of the participants went to museums approximately once per year, six of the participants went more than once per year, and three of the participants went less than once per year. Only two participants had no experience using audio guides. This study was conducted with an ethics approval process. The data were processed so that individuals could not be identified.

Audio Guide Application We developed an audio guide application that works on Android smartphones for this experiment. Based on the commentary of the selected paintings, we created our own commentary text so that all paintings had nearly the same length around twenty seconds. The guide screen displayed thumbnails of paintings and explanatory text (Figure 4). The audio guide voice was produced by Google Could Text-to-speech (setting:ja-JP-Wavenet-B, default pitch, for earphone). The application had the function to be remotely controlled by the experimenter during the subject was using it.

Conditions To examine the two factors, speaking speed and presentation timing, we set following conditions. Conditions were assigned to subjects in random order.

- **Speaking Speed factor**
  Standard condition :We use the default speed of Google Speech API.
  Fast condition : Speeds of 1.1 times faster were used than in the standard condition.
  Slow condition: Speeds of 0.9 times slower were used than in the standard condition.
  To decide the speed, we conducted a preliminary experiment and selected slow and fast speech which the subjects could hear without discomfort among speech speeds of 0.8 times, 0.9 times, 1.1 times, and 1.2 times. The participants could control audio guide by themselves.

- **Presentation timing factor**
  By subject: Subjects were instructed to control audio guide by themselves. They could start and stop the audio guide for each painting at any time they wanted.
  Before:Start timing was controlled by the experimenter (Figure 5). Subjects did not use the buttons of the audio guide UI, and they could hear the audio guide as if the guide could have played automatically. In this condition, the experimenter started the audio guide when the subject reached 80 cm from the front of the next picture.
  After: In this condition, the experimenter operated the audio guide. The experimenter started the audio guide when the subject stopped firmly in front of the next picture.
  In the presentation-timing conditions, the audio guide employed a standard speaking speed.

Measurements We video-recorded the subjects' actions from the point they left the starting point to the point of returning to the ending point. We measured the time spent appreciating each painting (including the time of moving closer to or away from a painting and looking at it from different angles) and the time spent moving between paintings. After each condition, subjects were asked to respond to this question: "Was the appreciation comfortable?." The Options were "Comfortable," "Neither," and "Uncomfortable."

Experiment 2

Experimental method We prepared experimental environment as same setting as Experiment 1 in a different room. The venue was 6.9 m wide and 21.9 m long. Paintings were placed as the same height and intervals as those of Experiment 1. The routes were also the same. The subjects were instructed to hold an audio guide application installed on their smartphones as in Experiment 1, wear headphones, and appreciate paintings while listening to the guide.

Paintings and Audio guide application Paintings for appreciation and audio guide application were same as in Experiment 1.

Subjects A total of 30 adults (17 men and 13 women) participated. People who were interested in art (based on the prequestionnaire) and could participate in the experiment were selected from the research company's monitoring database (more than 800,000 people) . Eleven participants visited museums more than once per year before the pandemic. Other participants visited museums two to three times in the past five years. In addition, 22 participants had experienced audio guide services in museums. Ethical approval and informed consent processes were performed as in Experiment 1, and data were anonymized and processed.

Conditions To examine the priming effect, we prepared explanations as a primer for set of paintings for each condition. Subjects listened to a preliminary explanation before starting appreciation, such as "What you are going to see now is a painting with the mark A. The title of the painting is A1, California Poppy Field, A2, Zinnias, A3, Portrait of Mrs. Edward L. Davis and Her Son, Livingston Davis, A4, The Herwigs, A5, Two Women. View in the order shown in the audio guide. Then, move on to A." The explanation took approximately 30 seconds. The order of the conditions was randomly assigned to each subject. The following setting was used.

- **Priming factor**
  Standard : Speaking speed of explanation was standard (Default speed of Google Speech API). Only speech was used, and there was no BGM.
  Fast : Speeds of 1.1 times faster were used than in the standard condition. Up-tempo music[2] (161 bpm[beat per minute]) played in the background during preliminary explanation.
  Slow: Speeds of 0.9 times slower were used than in the standard condition. Slow music[3] (68 bpm) played in the background during preliminary explanation.

Measurements We video-recorded the subjects' actions and measured their time spent appreciating each painting (same steps as in Experiment 1). After each condition, subjects responded to this question: "Was the appreciation different from your usual appreciation?." The options were "Usual," "Neither,"and "Unusual."

Results

The measured appreciating time and the time taken to move between paintings were compared between the conditions, and an analysis of variance was performed. We conducted a Chi-square test and residual analysis for subjective evaluations of each experiment.

Speaking Speed

Our results did not show any difference in moving time among speaking speed conditions (Standard: M=8.75 SE=0.27; Fast:M=9.17 SE=0.29; Slow:M=8.99 SE=0.29; Standard-Fast: p=0.14; Standard-Slow: p=0.44; Fast-Slow: p=0.84). Speaking speed did not affect moving time but affected appreciating time. However, results showed significant differences in appreciation time between "Fast" and "Slow" (Standard: M=37.84 SE=4.89; Fast: M=37.68 SE=4.23; Slow: M=43.26 SE=5.26; Standard-Fast: p=1.00; Standard-Slow: p=0.21; Fast-Slow: p=0.02<.05). Slower-speaking audio guides significantly increased the appreciating time compared to faster-speaking audio guides (Figure 6). After appreciating in each condition, subjects evaluated their comfortableness of appreciation. We conducted a Chi-square test and the results revealed significant differences among the conditions($\chi^2(4)=21.595$, p=.00024) The p value obtained by Fisher's exact test indicated almost the same result (p=.00047 <.05). Residual analysis revealed that the "Slow" condition is significantly comfortable among the conditions, whereas the "Fast" condition is uncomfortable among others (Table1). We received responses for subjective evaluation. Positive comments for the "Fast" conditions included, "It feels fast, but it's just right for me," whereas negative comments included, "Too fast to understand." Positive comments for the "Slow" condition included, "I was able to watch it thoroughly" and "I enjoyed the quality time," whereas negative comments included, "It was too slow" and "It was distracting".

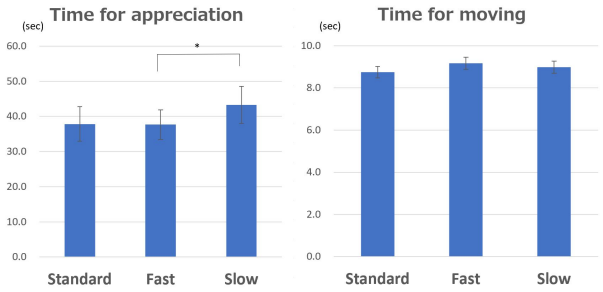

Figure 6: Average time for appreciation and the average time for moving in the speaking speed conditions. * p<.05.

Presentation Timing

There were significant differences between "By subject" condition and "Before" condition and between "After" condi-

Table 1: Subjective rating for comfortable guide in speaking speed conditions. Adjusted residuals greater than 1.96 are significantly more frequent than other frequencies, and less than -1.96 are significantly less frequent than other frequencies.* p<.05.

		Standard	Fast	Slow	Total
Comfortable	N	3	2	12	17
	adjusted residuals	-1.6	-2.3*	3.9*	
Neither	N	13	8	6	27
	adjusted residuals	2.3*	-.6	-1.7	
Uncomfortable	N	3	9	1	13
	adjusted residuals	-.9	3.1*	-2.2*	
Total	N	19	19	19	57

[2]music:"midstreamjam" by watson https://getsongbpm.com/.
[3]music:"You Far Away" by watson https://getsongbpm.com/.

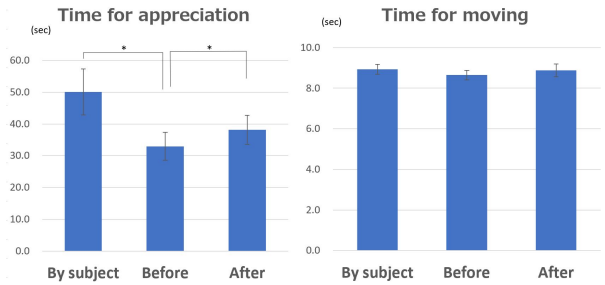

Figure 7: Average time for appreciation and average time for moving in the presentation timing condition. * p<.05.

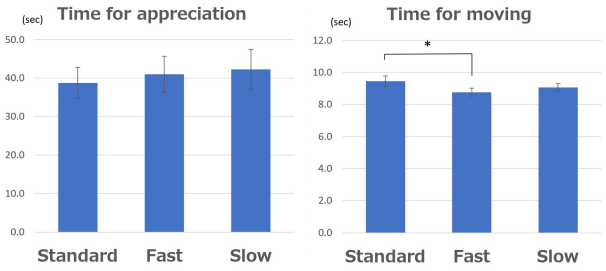

Figure 8: Average time for appreciation and average time for moving in the priming conditions. *p<.05

Table 2: Subjective rating for comfortable guide in the speaking presentation timing condition. * p<.05.

		By subject	Before	After	Total
Comfortable	N	3	2	4	9
	adjusted residuals	.0	-.8	.8	
Neither	N	13	8	15	36
	adjusted residuals	.6	-2.3	1.7	
Uncomfortable	N	3	9	0	12
	adjusted residuals	-.7	3.4*	-2.8*	
Total	N	19	19	19	57

Table 3: Subjective rating for naturalness in the priming conditions. * p<.05.

		Standard	Fast	Slow	Total
As Usual	N	16	13	13	42
	adjusted residuals	1.0	-.5	-.5	
Neither	N	4	8	2	14
	adjusted residuals	-.3	2.0	-1.7	
Different	N	9	9	15	33
	adjusted residuals	-.8	-1.0	1.8	
Total	N	29	30	30	89

tion and "Before" condition in appreciating time (By Subject: M=50.14 SE=7.24; Before: M=32.99 SE=4.38; After: M=38.19 SE=4.61; By Subject-Before: p=0.04<.05; By Subject-After: p=0.21; Before-After: p=0.01<.05). However, there were no significant differences among the conditions in time for moving(By Subject: M=8.9 SE=0.25; Before: M=8.65 SE=0.24; After: M=8.89 SE=0.31; By Subject-Before: p=0.49; By Subject-After: p=1.00; Before-After: p=0.51; Figure7). As in Table2, the results revealed significant differences among the conditions($\chi^2(4)=13.333$, p=.00976) The p value obtained by Fisher's exact test indicated the same result (p=.00685 <.05). Residual analysis revealed that there were no significant differences between the conditions for the comfortable rating; however the "Before" condition is more uncomfortable than "After" condition. The "By subject" condition did not differ significantly from others. Positive comments about the "Before" condition included, "It is good to hear the guide from a distance." Negative comments included, "The timing is too fast, and I get flustered." Positive comments regarding the "After" condition included, "I have time before I hear the guide." There were no negative comments.

Priming

There were significant differences between the "Standard" and "Fast" conditions in moving time (Standard: M=9.45, SE=0.33; Fast: M=8.77 SE=0.25; Slow=9.06 SE=0.26; Standard-Fast: p=0.01<.05; Standard-Slow: p=0.37; Fast-Slow: p=0.12). However, there were no significant differences among conditions in time for appreciation (Standard: M=38.81 SE=4.03; Fast: M=41.04 SE=4.71; Slow: M=42.31 SE=5.23; Standard-Fast: p=0.17; Standard-Slow: p=0.07; Fast-Slow: p=0.93; Figure8). In other words, it was possible to influence only the moving time without affecting the viewers' appreciation time by stimulating specific characteristics before appreciation. In particular, the "Slow" condition did not affect visitors' behavior, whereas the "Fast" condition made visitors move faster. After each condition, subjects completed a subjective rating questionnaire about the naturalness of the appreciation experience, indicating whether they had been able to appreciate the exhibit as usual. Three options were used: "I acted as usual," "Neutral," and "I acted different than usual." We conducted a Chi-square test and the results did not reveal significant differences among the conditions in subjective ratings between the conditions($\chi^2(4)=6.540$, p=.16231 The p value obtained by Fisher's exact test indicated the same result (p=.18973 >.05). (Table3). We collected comments regarding preliminary explanations from subjects; however, they did not comment on the appreciation experience. Therefore, impressions of the appreciation experience of the three conditions did not differ.

Discussion and Future Directions

Effect of Speaking Speed

Speaking speed affected viewers' appreciation behavior. According to the experimental results, there were no significant differences in moving time; however, there were significant differences in appreciating time between conditions. This suggested that speaking speed affected the appreciation status of the viewer. If the speaking speed of the guide changed, the difference in guide playback time between the "Slow" and "Fast" conditions was as much as 4 seconds. As appreciating time ranged from 37.7 seconds in the shortest "Fast" condition to 43.3 seconds in the longest "Slow" condition, this

difference was considered minor in terms of overall appreciating time. Studies have shown that the tempo of background sounds, especially music, affects behavior such as walking; therefore, it is reasonable to conclude that speaking speed of the guide affects appreciative behavior. However subjective evaluation revealed significant differences between the "Fast" and "Slow" conditions. Excessively fast speaking speed could be uncomfortable, including the speech being unpleasant and leading to discomfort due to reduced appreciating time. This study did not investigate subjective evaluations of satisfaction with appreciation; however, when controlling speaking speed, it is necessary to ensure that the speed is not unpleasant to the viewer.

Effect of Presentation Timing

Presentation timing affected appreciation behavior. According to the experimental results, there were no significant differences in moving time; however, there were significant differences in appreciation time between conditions. This suggests that presentation timing affects viewer appreciation status. Subjective evaluation revealed that viewers felt uncomfortable when the audio guide started playing before the viewer reached the painting they wanted to appreciate. They preferred to stop in front of a painting to properly appreciate it before hearing the audio guide. In addition, most participants stated that the timing was just right and allowed them to listen to the guide. The lack of negative comments suggested that the presentation after viewers' stopped was generally acceptable. In a previous preliminary experiment, we examined the timing of viewers' operation of audio guide and their stopping for viewing. Seven subjects participated in this experiment. The results of the experiment showed that some subjects listened to the guide before stopping for appreciation, whereas others listened after stopping. Furthermore, only one out of seven people always appreciated in the same style, whereas other viewers sometimes listened to the guide first and sometimes after starting viewing. When viewers operated the guides themselves, there were large variations within and between individuals. Conversely, if the audio guide is played automatically, there are differences from manual operation, which was considered acceptable to some extent. There have been several studies on human acceptable reaction times, including the finding that a reaction of less than two seconds is acceptable(Miller, 1968).

Effect of Priming

Controlling the speaking speed and presentation timing could affect appreciating time and inhibits viewing. These two factors related to audio guide contents may impede appreciation. Therefore, we examined whether the presentation of stimuli before appreciation, rather than during appreciation, affected appreciation. Experiment 2 demonstrated that priming stimuli did not affect appreciating time but affected moving time. The subjective evaluation presented comments on the preliminary explanation. There was no difference between conditions in the responses to the question of the naturalness of the appreciation experience or differences from usual appreciation. This may be because it did not affect appreciating time. As this experiment did not examine the satisfaction with appreciation, it was not possible to determine the effect of appreciating time on satisfaction with appreciation. We used a preliminary explanation with BGM for "Fast" and "Slow" conditions as primers to emphasize the priming effect. Future studies should analyze the individual effects of speaking speed and musical tempo. Future research should systematically examine factors influencing satisfaction with appreciation, including appreciating time, moving time, the impression of audio guides, and overall impression of appreciation experience.

Future Directions

This study investigated the effects of three factors in the presentation of audio guides on appreciation behavior focusing on behavioral indicators. However, in order to develop a better guide, it is also important to consider whether the user "understands the explanations" and "enjoyed the appreciation". In the future study, we would like to verify the value of the experience using these measures. And additional factors should be examined in the future. Factors related to the content, such as length and order of commentary, as well as environmental factors, such as space size, arrangement of exhibits, crowd density, and distance from others, may interact with the factors examined in this study. As mentioned, future research should systematically investigate factors influencing satisfaction with appreciation. These findings could help automate guides and control the flow of people to reduce crowding while keeping viewers satisfied with their experience. Moreover, the implementation of auto-playing audio guides requires controlling for factors and evaluating them in a real museum environment with other visitors, where multiple factors may influence appreciation behavior and satisfaction. Moreover, appreciation varies significantly between individuals. An automated audio guide that controls a variety of factors acquires individual responses, and generates personalized guides would allow for better appreciation.

Conclusion

This study examined the effect of three factors of audio guide presentation methods on appreciation behavior. The results demonstrated that the speed of speech and timing of starting the guide affected appreciation. Preliminary stimuli did not have a priming effect on appreciation but affected moving behavior among paintings. These findings are significant for improving audio guide application among museum visitors without disturbing their appreciation. However, this examination was limited to three factors. Future studies should expand the examination to other factors. In addition, applying these results to the autonomous guide allows for less congested moving, allowing viewers to concentrate more comfortably on appreciation.

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Appendix: List of paintings

The paintings used in the experiment are listed below (in order of placement in the experiment).

- Redmond, G. (circa 1926). California Poppy Field [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/227963
- Stettheimer, F.(circa 1920s). Zinnias [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/233234
- Sargent, J.S. (1980). Portrait of Mrs. Edward L. Davis and Her Son, Livingston Davis [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/172094
- Vysekal, E. A. (1928). The Herwigs [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/229171
- Kirchner , E. L. (1911-1912/1922). Two Women [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/233085
- Moran, T. (1872). Hot Springs of the Yellowstone [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/249025
- Duncanson, R. S. (1849). Still Life [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/239402
- Melchers, G. (circa 1905-1909). Writing [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/229095
- Chase, W. M. (1912). Just Onions [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/227892
- Juárez, J.R. (circa 1720). Miracles of Saint Salvador de Horta [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/215524
- Robinson, T. (1887). A Hillside, Giverny [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/203874
- Harnett, W. M. (1877). Alas, Poor Yorick [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/176492
- Henri, R. (1915). Edna [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/228236
- Berlin, B. F. (1920s). Figures [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/233500
- Leutze, E.G. (1852). Mrs. Schuyler Burning Her Wheat Fields on the Approach of the British [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/227780
- Trübner, W. (1891). A View of Frauenchiemsee [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/222751
- De Longpré, P. (1906). Poppies and Bees [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/241576
- Frieseke, F.C. (1914). In the Boudoir [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/228816
- Hartley, M. (1913). AbstractionBlue, Yellow and Green [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/230310
- Fontebasso, F. (circa 1750). Abraham and the Three Angels [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/211330
- Eilshemius, L. M. (1980). Stormy Landscape [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/226977
- Vedder, E. (1879). Japanese Still Life [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/240565
- Alexander, J.W. (1902). Portrait of Mrs. John White Alexander [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/246652
- Peto, J. F. (circa 1900). HSP's Rack Picture [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/187824
- Birch, T. (1833). Loss of the Schooner 'John S. Spence' of Norfolk, Virginia, 2d view-Rescue of the Survivors [Painting]. Los Angeles County Museum of Art, United States. https://collections.lacma.org/node/178200