Tuning the Canvas

How Can Emotional Music Change the Viewer's Perspective of Visual Art?

Creative Music Production, Research Methods, O'Neill, Alex, 28th April 2025, Kieran Lynch

Abstract

The aim of the thesis is to see if emotional music can change the viewer's perception of visual art? The objective of this project is to write three original songs and have participants look at two different paintings, painting one and painting two, while listening to each of the three original songs and to investigate what, if any, difference it made to the viewer's perception of the paintings.

The research for this thesis had a total of forty participants divided into four groups. Each group listened to a different piece of music. One group listened to a happy song, another group to a sad song and a third group to an angry song. The fourth group, the control group, listened to the background sounds of the art gallery.

Each group looked at paintings one and two. After two minutes the participants were given access to an online survey in Microsoft forms. The questions in the survey asked if they were familiar with the artist's work; had viewing the piece changed the viewers mood; what was the best way to describe how the viewer felt - happy sad or angry; and did the environment influence the viewer's opinion of the art piece.

The results of this project showed that emotional music can change the viewer's perception of a visual art, with the most success from the happy and sad group. However, the anger group did not show as much evidence as the other groups. The control group, as expected, returned more mixed responses.

As a conclusion to this project, it was shown that emotional music can change the viewer's perception of visual art with some emotions having more of an impact than others.

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Declaration

I hereby certify that the material, which I now submit for assessment on the programmes of study leading to the award of BA(Hons) in Creative Music Production, is entirely my own work and has not been taken from the work of others except to the extent that such work has been cited and acknowledged within the text of my own work. No portion of the work contained in this thesis has been submitted in support of an application for another degree or qualification to this or any other institution.

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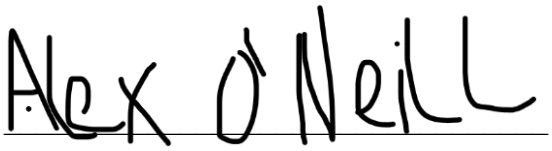

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Signature of Candidate Date

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Introduction

The aim of the research is to determine if emotional music can change the viewer's perception of a visual art. The purpose of this topic is to discover if certain emotions elicited by music can change viewers' views of real art paintings. The research aims to show if music can influence emotions such as happiness, sadness and anger when viewing visual artwork.

This topic started off as a curiosity during a period when the researcher regularly, usually two to three times a week, visited the National Art Gallery. In the course of each visit to the gallery the researcher looked at the same paintings and it felt like a different experience each time. When listening to different music playing with headphones and looking at the same paintings there was a realization that each painting brought about a different response in the researcher depending on what music was being listened to. On realizing this, the researcher decided to investigate this difference in response and to explore whether this experience was the same for other people.

This research is divided into several sections. Several themes will be discussed in the literature review which will give an overview of the topic from research undertaken through a variety of resources including papers, books, and videos. The literature review will include the following topics: background information, the creative process, how music can change human emotion and viewing of art. The conclusion will summarize the themes of this research. Another section that will be discussed is methodology. The methodology will include a summary of the project, the method of conducting the project and the background of the methods used for this project.

The next section is the analysis which will include an introduction, an explanation of the project, the outcomes of the research based on the viewing of painting one and painting two and a conclusion.

The next section is the discussion. The discussion is an in-depth exploration of the methodology and the analysis. The discussion will include the project process, the analysis results, and finally what worked and did not work for the project. The last section is the conclusion which will wrap the thesis up and consider plans to improve the project. Other sections include bibliography and appendixes.

Literature Review

Background

This research is based on a keen interest in writing songs and love of art. The research was inspired by visiting the National Gallery of Ireland and viewing all the paintings while listening to the album Revolver (The Beatles, 1966). Over time it was realized that each subsequent visit to the gallery with a different song from the Revolver album would change the researcher's emotional perspective of many of the art pieces. For example, when listening to a song with a more positive and energetic sound including "Taxman" and "Got to Get You Into My Life," it would change the meaning of the painting to a more positive one. On other visits to the gallery the researcher listened to the same album and songs with a darker or sadder tone like "Eleanor Rigby" and "For No One," the opposite would happen. The researcher viewed the painting in a more negative vein. Over time there was a curiosity to ascertain if the same experience could happen to other people, to see if the emotions of a song, lyrically, musically, or both could change the emotional perspective of the viewer of an art piece.

This project was also inspired by primary research on Gallery I (title of thesis) - How music changes our perception and experiences when viewing paintings and visual art? (Sammon, 2024). The project focused on what would happen to the viewer of visual art with the addition of musical stimuli.

The Creative Process

The creative process will involve writing, recording, and producing three songs. Songwriting stands for a key personal activity and is the focus of this project. The Music elicits a strong emotion is key to this project. The two practitioners have been chosen as a focus, due to their success in their respective fields.

A primary source for the project comes from the book *The Lyrics 1956 to the Present* (McCartney). This book explores the creative process of iconic songs including "Yesterday," "Hey Jude" and "Blackbird." The book offers a depth of context for aspiring songwriting providing both creative and professional inspiration. The personal reflections offer a welcome insight into the emotional aspects of the craft. There is a particular chapter in the book called "Here Today," which references the song by the same title and according to McCartney was

"A love song to John, written very shortly after he died" (McCartney). The song covers the relationship of two close friends and what they have done over the years. The song was also written with lyrics based on certain memories between friends during the Beatlemania era including the line "*What about the night we cried"* (McCartney, 1956). The lyrics represented a story of the Beatles first USA tour when there was a hurricane, and the band had to lay low for a couple of days in a motel room where they decided to get drunk and cried about how much they loved each other, which is a core memory of Sir Paul McCartney.

The narrative offered by McCartney is further explored in *How Music Forces Perspective* (Osicki, 2019).[1] This is a well-researched video discussing the composer John Williams and the use of music in the Steven Spielberg film, Empire of the Sun (Spielberg, 1987). The video explains that the music investigates the perspective of a child in a miserable situation (since the film is based in wartime during the Second World War). The juxtaposition of the English child's naive sense of wonder and hope, with the horror of war and being struck in a Japanese internment camp is represented musically.

John Williams creates the sense of naivety, wonder and childlike emotions with the use of a choir of high voice standing for the children's choir at the start of the movie with the protagonist's excitement when the Japanese camp was being bombed. This example was also used with the child's sense of wonder later in the movie when the protagonist mistakes a nuclear explosion from Hiroshima for the spirit of an older character who passed called Mrs. Victor. The music makes the viewer see the movie through the protagonist's eyes. For example, the mood changes when the protagonist gets scared being chased by a Chinese street urchin with intense chase music.

How Music Can Change Emotion

The theme, how music can change emotions, will involve examining the psychology of music. Understanding this aspect will be a key attribute and a focus of this project.

[1] According to (Clarke, 2024), Osaki has 17 million views with circa 350, 000 followers with the channel named Inside the Score who is also a composer and producer who composes in prestigious venues like the National Cathedral and BBC Radio 4.

Another primary research source for the project is the book *This is Your Brain on Music* (Levitin). [2] This book explores the relationship between music and the human brain, explaining how humans experience music and why it is essential to human life. This book draws on scientific research and musical examples ranging from Bach to The Beatles. Within this book, chapter six, *After Dessert, Crick Was Still Four Seats Away from Me: Music, Emotion and the Reptilian Brain* will be of particular importance during the research. This topic relates to work by Evers and notes that the cerebellum might be involved in musical emotion which also helps performers and conductors keep in tempo (Evers, 2023).

What was also found in Levitin's work was that *"listening to music caused a cascade of brain regions to become activated"* (Levitin, 2006). These include the auditory cortex for initial processing of the components of the sound; the frontal regions being involved in processing musical structure and expectations; and lastly the mesolimbic system involved in arousal and pleasure and the production of dopamine. This means that when listening to happy music for example, the dopamine someone gets will improve a person's mood, especially if it is a song that a person loves.

The narrative offered by Levitin is further explored by Blood (Blood, 1999). The research examines blood flow changes related to affective responses to music. There were 10 participants scanned while listening to six versions of a novel musical passage with varying degrees of dissonance. It was discovered that music could trigger the brain areas linked with emotions like pleasure or discomfort.

Viewing of Art

The final theme that is going to be discussed is the viewing of art theme. This theme will involve how people see art.

There was a neurological study in the Netherlands that did an experiment to see if real art works in museums could stimulate the brain much more then reprints (Boztas, 2024). The experiment had a total of 20 participants between the ages of 21 to 65 . The participants were attached to a brain scanner and eye tracking equipment and were asked to look at five different paintings in the Mauritshuis Museum and posters of five paintings in The Hague.

[2] Daniel Levitin is a neuroscientist, cognitive psychologist, musician, and author of four New York Times best-selling books including I Heard There Was a Secret Chord, The World in Six Songs and The Organized Mind. He is also the Founding Dean of Arts and Humanities at Minerva and Neuroscience at McGill University in Montreal.

The researchers also looked at the effects of images of real works versus reproductions flashed on to participants goggles inside an MRI scanning machine. One of the five paintings looked at is the world-famous Girl with a Pearl Earring by Dutch Golden Age painter Johannes Vermeer.

The results showed that all 20 participants had a response that was 10 times stronger when looking at the real paintings compared to the reprints. Within the article according to Martine Gosselink the director of Mauritshuis states *"A factor of 10 is an enormous difference, and this is what happens when you look at a reproduction compared to a real work"* (ibid)

According to the research the real artworks evoked a strong positive response in the precuneus part of the brain where that part of the brain is involved with the conscious, self-reflection and personal memories. When analyzing Girl with a Pearl Earring, the painting attracted the most attention and drew the eye with the most focused aspect. (See appendix 1)

Conclusion

In conclusion, the themes discussed used credible sources including published research, books, videos, and articles covering topics including songwriting, composing to change perspective, how music can change emotion and viewing art. The background theme explains the idea and the influence of the research. The creative process theme explains how experiences can influence songwriting based on emotions. It also explains and influences how composition can change the perspective of a visual art. The "why music changes emotion" theme discusses the science on why certain music can change the mood of a person including happy and sad songs. Finally, the viewing of art theme discussed an experiment to see if real art works in museums could stimulate the brain more than reprints. The reason the viewing of art theme is important to this research is that it will aim to support the researcher's thesis that art galleries do make an impact on seeing an art piece based on background influences.

Music and mood are closely intertwined with the visual arts, with diverse types of music capable of influencing our emotional state in profound ways. This paper sets out to examine this and expand on the research to date with the help of the methodology which gave the results to the analysis.

Methodology

Summary

The research question is: Can Emotional Music Change the Emotional Viewer's Perception of a Visual Art? The purpose of this research was to discover if certain emotions from music could change the perspective of viewers of modern art paintings. The specific emotions explored include happiness, sadness and anger using original songs. The songs were produced in a home recording studio. The idea of the songs came from recording voice memos, helping out with melodic writing, and coming up with the structure of the songs. After the songs were recorded, the participants would have gone to an art gallery to see two of the chosen modern art pieces. The forty participants would be divided into four groups of ten and would look at the selected art pieces. Click or tap here to enter text.

Method

In this research there was a pilot with four people listening to three songs that are considered happy, sad, and angry and one person looking at the paintings with only the background sounds in the gallery. The requirement given to each participant before the project started was to bring headphones and have a phone to hand to send the wav file of the songs. The pilot had each person look at two art pieces. The first participant looked at the first painting until the happy song they were given to listen to was finished after which the participant was given a survey to complete. After that survey was completed, the same participant did the same thing with the second painting while listening to the same song and then completed the second survey. The second participant followed in turn and was given sad music to listen to. The third participant repeated the process with angry music and the fourth participant did likewise with no music just background noises. Click or tap here to enter text.

In this research it was decided to create original compositions. The researcher had written many songs and decided to voice memo estimates including vocal melodies, compositional ideas with certain emotions including happiness, sadness, and anger. The researcher had been writing songs since the age of 16. The songwriting process for this project had started in January 2025 and was recorded in the home studio. Over time there were many demos, one of which was dedicated to drum recording in Studio 1 in Sound Training Studios in Temple Bar. In total three final compositions were finished. The first song being the sad song was

named Noid. Noid is a slow song that includes gothic and noir music genres. The song has lead guitar, harmonies, piano, drums, bass guitar and sound effects like rain. The second song was the happy song called With U. With U is a fast-paced song that included indie pop and lo-fi genres, the song has a mellotron with the flute setting as the melody, the song also included drums, piano, rhythm guitar and lead guitar harmonies from the mellotron with the flute setting. The song also included a key change. The final song was the angry song called BAIN. BAIN is a fast-paced song that included grunge and hard rock genres. The song included lead guitar, bass, rhythm guitar and drums.

By February the songs had the final adjustments finished including being mixed and mastered. The eight surveys were revised and edited with the help of Kieran Lynch.

The next stage of the project was to find forty participants. All forty participants were then divided into smaller groups of four with ten participants in each group. The forty participants were gathered by friends, acquaintances and family though social media like Instagram and through WhatsApp. The first group, Group A was the sad group, the second group, Group B was the happy group, the third group, Group C was the angry group and finally the last group, Group D was the control group with background gallery sounds. A WhatsApp group was established for each group to facilitate sending surveys to the participants. As with the pilot, participants were required to have headphones available during their visit to the gallery. Due to the participants' availability not, all groups had all ten participants in one day at the gallery. This did not have an impact on the results, it just took a bit longer than expected to get the results of the surveys. With Group A being the only group with all ten participants available at the one time it was required to seek permission from the National Gallery of Ireland to have ten people going into the gallery as a group. All the groups repeated what occurred in the pilot with the exception of the songs being original songs.

The questions raised in the Microsoft Forms survey sought to establish if the viewer was familiar with the artist's work; had viewing the art piece changed the viewer's mood; what was the best way to describe how the viewer felt looking at the painting, that is, was it happy, sad or angry; and did the environment influence the viewer's opinion of the art piece.

Background

This methodology was used because the research required a pilot to provide a fair comparison comparing the three songs written by other artists to original ones. The reason why voice memos were used for this research was because the voice memos were like a journal for the process of writing these original and emotional songs. This helped listen back to musical ideas whether instrumental, melodic or both. The reason for the surveys was to gather information while also keeping the participants anonymous. The reason it was decided to use Microsoft Forms was because of its compliance with The General Data Protection Regulation (GDPR) which is a piece of European Union legislation that protects personal information.

Analysis

The Analysis is the section of the thesis that addresses the outcomes of the methodology with results from some of the questions. This part of the paper will be divided into two subsections comprising painting one and painting two. Each subsection will discuss the results from some of the questions, including question eight, eleven, thirteen, and sixteen.
Questions one to seven are questions making sure the participants agreed to do the survey and knowing more about the participants including if they are students, age, gender. Questions nine, ten, twelve, fourteen and fifteen are opinionated questions that ask the participants to describe the paintings.

For the research and surveys, there were four groups of 10 participants: Group A – sad song group, Group B -happy song group, Group C – angry song group and Group D – control group. There were also subsections for each group including Painting One and Painting Two. This resulted in conducting eight different surveys, with each group taking two different surveys.

Painting One

The first painting used for this project was Man Walking the Stairs, painted in 1922 by Ludwig Meidner (See Appendix 2). For question eight, 90% of each group's participants did not know the artists' work. This was expected as the artist is not known by the mainstream, and this would be a benefit because not knowing the artists' works results in less biased opinions.

Question eleven was about how viewing the first painting changed the participant's mood. Group A and C results show 80% of participants' views changed by seeing the art piece, Group B results show 70%, and Group D results show 60%. It was expected that Group D would have a lower percentage since that was the control group without music.

Question thirteen questioned the participants about how best to describe the emotion they felt when looking at the art piece. The thirteenth question was given as a multiple choice question between happy, sad or angry. Group A responded with 70% sad and 30% happy. Group B responded with 90% happy and 10% sad. Group C responded with 50% angry, 40% happy and 20% sad. Finally, Group D responded with 40% happy, 30% sad and 30% angry. These answers are especially important and prove that emotional sounds did impact the viewer's perception of an art piece. Every group, except the control group, had a majority positive

response to the relevant emotional sound. For example, Group A is the sad group, and most participants responded with sadness. Group D, being the control group, showed varying opinions with no significant majority as might be expected since it was the background of the gallery with no music.

The sixteenth question asked the participants if the environment influenced an opinion of the art piece. Group A responded with 100% yes and 0% saying no, Group B responded with 50% yes and 50% no, Group C responded with 40% yes and 60% saying no and finally group D responded with 20% yes and 80% no. These results for the sixteenth question are interesting. The reason for this is because it was shown in question thirteen that the environment of the sounds did have an enormous impact on the results. The results for Group B and Group C were interesting and unexpected. This was because similar to Group A and Group D the results from question thirteen showed that the environment of the sounds had an impact on both Group B and Group D, yet half of Group B and most Group D participants believed that the environment did not influence an opinion of the art piece.

Painting Two

The second painting used for this project was Pierrot, painted in 1921 by Juan Gris (See Appendix 3). As with painting one all groups responded with 90% of participants not knowing the artist's work. Like painting one this was expected as the artist is not known mainstream, and this would be a benefit because not knowing the artist’s works results in less biased opinions.

Question eleven is the same question as for painting one. Group A and C responded with 80% yes and 20% no, Group B responded with 50% yes and 50% no, Group D responded with 60% yes and 40% no. It was not expected that group D would have a higher percentage than group B. However, it still shows that viewing an art piece can change the viewer’s mood.

Question thirteen is the same question as for the first painting being a multi choice question between happy, sad or angry. Group A responded with 80% sad and 20% happy. Group B responded with 50% happy and 50% sad. Group C responded with 30% angry, 40% happy and 30% sad. Finally, Group D responded with 30% happy, 50% sad and 20% angry. These answers from the second painting are quite different from the first painting. Group A was the only group with most people responding with the same emotion as that of the song. Group B

would have half of the people responding with the same emotion as the song. Group C painting two was the only group in this project that did not have most participants responding with the same emotion as the song with only 30% responding with anger. Group D responded with 50% being sad. When looking at the results, sadness had the biggest impact with this painting, as all groups except group C had sadness as either tied or as a majority.

The sixteenth question, like painting one, asked the participants if the environment influenced their opinion of the art piece. Group A responded with 80% yes and 20% no, Group B responded with 40% yes and 60% no, Group C responded with 70% yes, 20% no and 10% unsure, and finally Group D responded with 20% yes and 80% no. Like painting one, these results for the sixteenth question are remarkably interesting. These answers were more expected then the first painting because Group A and C had a majority of influence with question thirteen with Group A having 80% sad and Group C having 40% Happy. It was also expected that Group D would have a majority believed that the environment didn't influence their opinion as it was only the background with minimal focus to sound. Group B was not expected because a majority didn't think the environment influenced their opinion to the art piece however there was no majority as it was a 50/50 spilt between happy and sad for the participants.

Conclusion

The analysis provided an explanation of how the surveys worked. Using a sample of questions from the survey, questions eight, eleven, thirteen and sixteen, the analysis set out the results from all groups for the first and second painting.

Discussion

This project looked at the question: Can Music Influence the Emotional Perception of Visual Art? The intent was to examine whether music could influence a viewer's emotional response to viewing visual art. The research involved creating original music based on emotional tones including happy, sad and angry, and observing how these pieces have affected viewers' analysis of the selected artwork in the National Gallery of Ireland. This section will be discussing the process, results, the expected results, and the unexpected results and what was successful and unsuccessful in the project.

Process

The Pilot was essential to this project as it was a way to see if this project does work with a small number of four participants with each participant representing a happy song, sad song, angry song, and the control element which had no song. The pilot showed how the participants interpreted emotions especially in the angry song, which that participant found more energetic than aggressive. As a result of the feedback adjustments were made to the survey and to the final compositions.

Throughout this project, there were times when the progression was smooth, but also times when the process had notable challenges. When the pilot finished it was decided not to add lyrics to the songs because the project should only focus on sounds from instrumentation or vocals. The intentional absence of a lyrical vocalist was to make the songs less bias and to try to focus more on instrumental. The influence for this approach came from the pilot and the John Williams film score of Empire of The Sun.

Writing the songs came naturally at times, especially when leaning into emotional memory or experiences. The process of writing the happy song also known as With U was a very quick process with writing and recording the songs only taking a couple of days. The sad song, known as Noid, had a slower process as at times it was hard to look back towards emotional memories or experiences. The voice memos were central to tracking progress but often meant reliving that emotional state resulting in being mentally drained. The angry song, also known as BAIN, was the most challenging song to make. It was because anger is not an emotion that can be as concentrated, song wise, as fluidly as happy or sad emotion. This becomes apparent when reading up on the results. BAIN, however, was completed with the help of voice memos and research influences from bands such as Nirvana and Sex Bomb Bomb. All the songs were recorded using instruments including guitars, bass guitar, drums, digital drums, mellotron plug in and piano. All the instruments were recorded at a home studio using Logic Pro X.

Permission was required for 10 or more people in a group to attend the National Art Gallery of Ireland. Permission was sought via email. The most challenging part of this process was organizing participants, which resulted in a slower than anticipated process in getting the results. Group A had ten participants in one room undertaking the project. Group B was more divided, resulting in having three to five people at a time in a room instead of 10 people. This

was due to the availability of participants. Group C was the same as group B and Group D was the same as Group A with slight adjustments.

The surveys were conducted with a balance of clarity, anonymity, and emotional depth. Microsoft Forms was the form used for the surveys. However, there were some misunderstandings with the phrasing of the questions, particularly about question eight and question thirteen.

Results

As stated in the analysis the results showed a clear pattern that emotional sounds do influence how viewers see visual art. This was especially seen in Group A, the sad group, and Group B the happy group. Where most of the participants described the paintings with the aligned emotional music that their group was based on. Group D, the control group, had more mixed responses than expected as it supported the idea that without music, interpretations were less emotionally directed. As anticipated, while emotional correlations were expected from group A and B, Group C, the angry group, was less consistent especially with the second painting. This was shown in the analysis in question thirteen with only 30% of Group C participants describing the painting using anger as the primary emotion despite the angry music. This suggests that anger is harder to emotionally translate in visual art.

It was anticipated that the control group would exhibit the most diverse responses due to the lack of emotional stimuli. This group only listened to the background of the National Gallery in Ireland where there was no music played. It was also expected that each music emotion group would respond in alignment with the tone of the music the participants heard. For painting one, these expectations were met. Group A with sad music leading participants to mostly feel that the piece was meant to be sad. Group B with happy music leading participants to feel that the piece was meant to be happy and Group C with angry music leading to heightened intensity. It was also predicted that the participants would be unfamiliar with both artists' work and would be less likely to be biased. It also held true as 90% of all groups had no prior knowledge of the artists, leading to more authentic and instinctive responses. Some unexpected outcomes came with Group C. Group C’s exposure to angry music did not consistently associate the paintings with anger, especially in Painting two. Despite the music's aggressive and engaging tone with distorted guitar, the participants did

not always internalize that emotion. It suggests that anger might be less transferable through music when combined with art.

What Worked and Didn't Work

In this project there were a lot of successes. This includes all forty participants participating in the project, each group having an even ten participants. All the participants in group A, B and C followed the instructions by bringing in headphones. Group A and B showed clear emotional alignment with the music. The combination of original music and randomized group testing and a consistent setting at the gallery worked well. The use of Microsoft forms kept the data secure and participants comfortable with sharing honest responses and lastly creating original music added a unique and personal dimension to the study, grounding it in creative authenticity.

Notwithstanding the success of this project there were still a few flaws that will be improved if revisited. The first issue noticed was that one of the paintings for the pilot was missing. This was a worry because the paintings were chosen months in advance before the surveys. This resulted in choosing a different painting and this ended up being painting one. Another issue was Group A question thirteen. The original question thirteen was supposed to be a multi choice question with an opportunity to select an emotion, either happy, sad, or angry. However, when the group answered the question, it was apparent that to finish the survey question thirteen would have to have all options filled in, which could have resulted in no results. As a result of this an interview was undertaken with each participant of group A. The participants of Group A were asked to answer question thirteen and write down the answers in a note's application (see at appendix 4). The survey was immediately amended, and the rest of the participants were used the amended version of question thirteen. Other issues included the participants reading the description of both paintings and participants talking about results to other participants resulting in bias. This resulted in making rules to not talk until the second painting's survey was completed by everyone and asking participants not to look at the descriptions of the paintings. Group C being the angry group as an emotion, proved hard to reinstate through music alone. Some of the questions might have been too vague or abstract leading to mixed interpretations. Another problem was that coordinating people and time slots in a real-world environment like a gallery was challenging and added unpredictability.

Conclusion

As a conclusion of the discussion section, the process was discussed and how the project incorporated the pilot, songwriting, equipment used to record the songs. It also discussed the engagement with the national Art Gallery to seek permissions, how some of the groups were divided and the use of Microsoft forms. The results were also discussed with the use of the analysis including expected results and unexpected results from the project. Lastly, the discussion section highlighted the successes of the project, the issues that arose and how those issues were resolved.

Conclusion

This research set out to examine if emotional music could change the viewer's perspective of visual art pieces, specifically within paintings in the National Art Gallery of Ireland. The project included three structured original compositions, each designed to convey certain emotions including happiness, sadness, and anger. It was found that music does influence how viewers interpret artworks. Participants who listened to emotionally charged music consistently aligned their interpretations of the paintings with the tone of the music the participants heard. The control group, which was only exposed to the ambient gallery noise such as street noise, talking, walking, demonstrated more spread and less emotionally directed responses which contrasted with the other groups.

The results show a strong correlation between the emotional tone of the music and the viewers' description of the artwork especially with the happy and sad music groups. These discoveries reinforce the theory that multisensory experiences can shape emotional perception and interpretation. The use of unfamiliar artworks has further ensured unbiased reactions, highlighting the true reaction of emotional influence.

While the project was successful in many areas, including the development of original music, the organization of group testing, and the use of anonymous digital surveys, some challenges did emerge. Anger was an emotional tone which proved harder to communicate effectually through music in relation to visual interpretation. There were also logistical issues such as coordinating the participants' schedules and maintaining the integrity of survey responses.

In the future this research could explore a broader range of emotions like fear and disgust. Expanding the participants' demographic and expanding the number from forty to one hundred could also offer insight into how cultural background or personal music preferences affect emotional perception. In addition, there could be testing with other types of casual art like digital art, photography or film which would provide a more comprehensive understanding of cross modal emotional influence.

In conclusion, this research underscores the deep connection between music and visual perception, offering compelling evidence that emotional music can change the viewer's perception of paintings. These insights open new possibilities for both academic research and creative practice, suggesting exciting possibilities for collaboration between music and art.

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Empire of the Sun . Dir. Steven Spielberg. Perf. John Malkovich Christian Bale. 1987. Fictional War Film .
Evers, Stefan. "The Cerebellum in Musicology." *National Library of Medicine National center for Biotechnology Information*. 18th August 2023. Narative Review.
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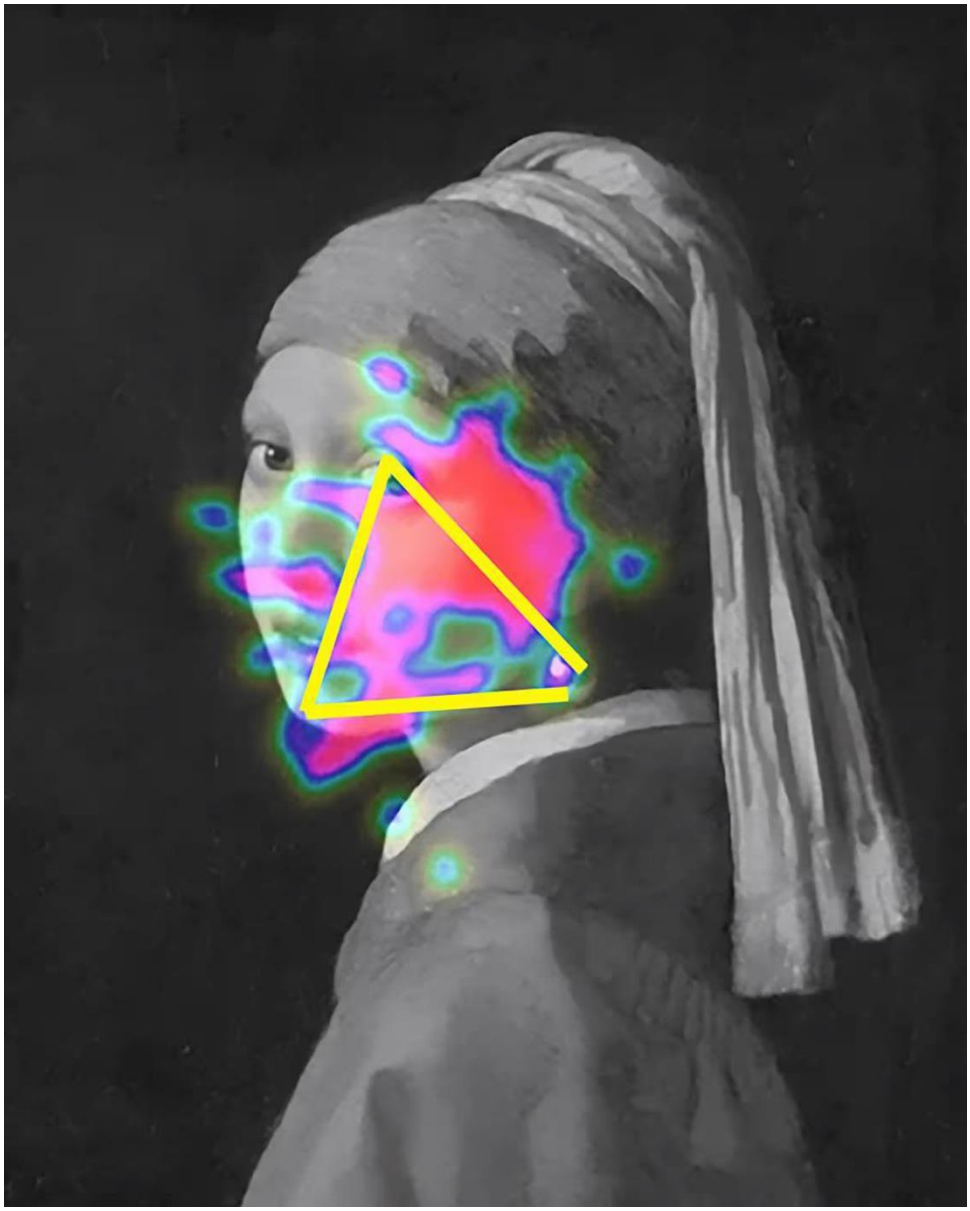
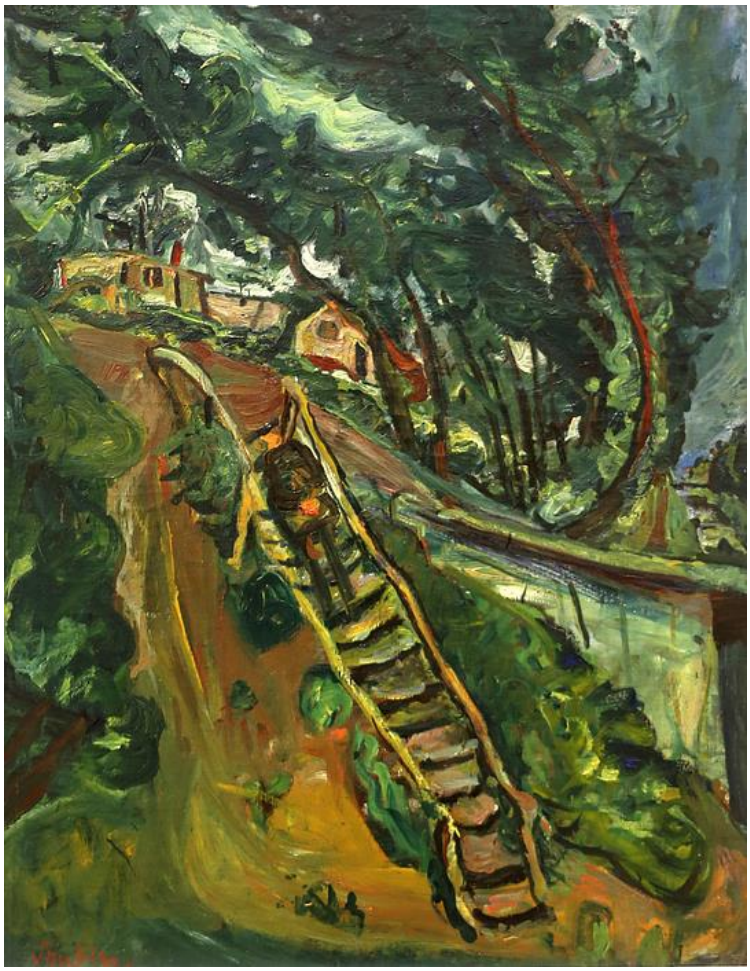
McCartney, Paul. *The Lyrics:1956 to the Present*. WW Norton & Co, 2021.
Osicki, Oscar. *YouTube, Inside the Score, How Music Forces Perspective*. 13 July 2019. 29th November 2024.
Sammon, Malachy. *How music changes our perception and experiences when viewing paintings*. Thesis. Dublin: IADT, 2024.

Appendices



Appendix 1.- Girl with a Pearl Earring drew the eye in what researchers described as a ‘sustained attention loop’ between the girl’s eye, mouth, and earring. Photograph: Mauritshuis from Boztas. - Real art in museums stimulates the brain much more than reprints, study finds, Scientists in Netherlands using eye-tracking and MRI scans found ‘enormous difference’ between genuine works and posters. 3rd October 2024.



Appendix 2. - Gris Juan. “Pierrot.” 1921 National Gallery of Ireland.

Appendix 3 - Meidner Ludwig “Man Walking The Stairs” 1922. National Gallery of Ireland

Appendix 4
O’Neill, Alex - Notes Application for answers for question thirteen - March 2025

Extra

All information is from Microsoft Forms for the following (Excluding Painting One Group A and Painting Two Group A with question 13, which is from the note application

Songs
Noid by Alex Chadwick O'Neill
With U by Alex Chadwick O'Neill
BAIN by Alex Chadwick O'Neill

Online Surveys
Painting One Group A -
https://forms.office.com/Pages/DesignPageV2.aspx?subpage=design&FormId=e5V92hEVQkqy9Xj4R_jIeini5_0S8ApKrbIuGVb-7FdUOVkxRUs3UU1QRUpWWTUwODJJN01CMU9MMi4u&Token=2a29952e775a455092a46fa07c1d1dce

Painting Two Group A -
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Painting One Group B –
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Painting Two Group B –
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Painting One Group C –
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Painting Two Group C –
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Painting One Group D –
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7FdUNTJOTlVaRVFPOTdKSkcxRk9QS1VNWDdZVS4u&Token=7e84f2742cc54f149288abf71b30c219

Painting Two Group D – https://forms.office.com/Pages/DesignPageV2.aspx?subpage=design&FormId=e5V92hEVQkqy9Xj4R_jIeini5_0S8ApKrbIuGVb-7FdUMEpTTDdZQjBBUktSVUtPTFA0QkNVQUJSWi4u&Token=b2fcbad0e82c411891a3024678d41fc6

Questions on surveys

Hello guys before beginning, I wanted to thank you for participating in this survey, it means a lot of volunteering. My name is Alex O'Neill, and I am a Final Year Creative Music Production student who hopes to become a Sound Designer. This project is about how aural stimuli affect a visual experience. The survey will ask questions about what you thought of the painting and, from listening to the sound how the painting makes you feel. There will be two surveys to fill in. (one for each painting). If you have any questions about this project, you can ask privately :) Here's my email N00210551@iadt.ie

1. I confirm that i have read and understand the information sheet for the above study and have the opportunity to ask questions. *

- ◯ Yes

2. I understand that my participation is voluntary and that i am free to withdraw at any time. *

- ◯ Yes

3. I understand that data collected about me during this study will not be identifiable when the research is published. *

- ◯ Yes

4. I agree to take part in this study. *

- ◯ Yes
- ◯ No

5. I am over 18 years old. *

- ◯ Yes

6. What Gender Do You Identify As? (Not Required to Answer)

- ◯ Man
- ◯ Woman
- ◯ Non-binary
- ◯ Prefer not to say
- ◯ Other

7. I am a student *

- ◯ Yes
- ◯ No

8. Are you familiar with the artist's work? *

Enter your answer

9. What do you think this art piece is about?

Enter your answer

10. What does this art piece symbolise? *

Enter your answer

11. Has viewing this piece of art changed your mood? *

- ◯ Yes
- ◯ No

12. How does this art piece make you feel? *

Enter your answer

13. When looking at this art piece when listening to sounds, What was the best way to describe the way you felt,
A. Happy B.Sad. C. Angry
Please only choose between these options *

Enter your answer

14. Why does this art piece make you feel that way?

Enter your answer

15. If you had one word to describe this art piece, what would that word be? *

Enter your answer

16. Did the environment influence your opinion of the art piece? *

Enter your answer

Survey Answers

Question eight

Painting 1
Group A

8. Are you familiar with the artist's work?

10 Responses

ID	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	Yes
5	anonymous	No
6	anonymous	No
7	anonymous	No
8	anonymous	No
9	anonymous	No
10	anonymous	No

Painting 2
Group A

8. Are you familiar with the artist's work?

10 Responses

ID	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	No
5	anonymous	No
6	anonymous	No I have never heard of the artist before
7	anonymous	Yes I am
8	anonymous	no
9	anonymous	No
10	anonymous	no

Painting 1
Group B

8. Are you familiar with the artist's work?

10 Responses

ID	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	No
5	anonymous	No
6	anonymous	No
7	anonymous	No
8	anonymous	No
9	anonymous	No
10	anonymous	Yes

Painting 2
Group B

8. Are you familiar with the artist's work?

10 Responses

ID	Name	Responses
1	anonymous	No
2	anonymous	no
3	anonymous	No
4	anonymous	No I am not
5	anonymous	No
6	anonymous	No
7	anonymous	No
8	anonymous	No
9	anonymous	Yep I am
10	anonymous	No

Painting 1
Group C

8. Are you familiar with the artist's work?

10 Responses

ID	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	No
5	anonymous	Yes
6	anonymous	No
7	anonymous	No
8	anonymous	No
9	anonymous	No
10	anonymous	No

Painting 2
Group C

8. Are you familiar with the artist's work?

10 Responses

ID	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	Nope
5	anonymous	No
6	anonymous	With some other works
7	anonymous	No
8	anonymous	No
9	anonymous	No
10	anonymous	No

Painting 1
Group D

8. Are you familiar with the artist's work?

10 Responses

ID	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	No
5	anonymous	No
6	anonymous	No
7	anonymous	No
8	anonymous	Yes
9	anonymous	No
10	anonymous	No

Painting 2
Group D

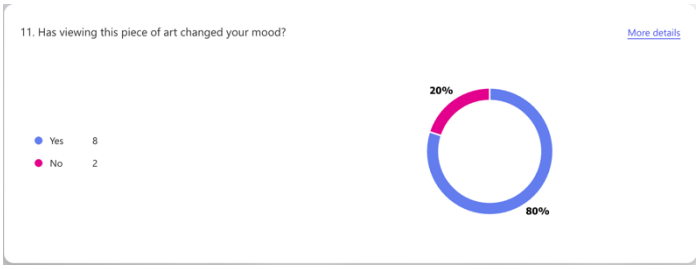
8. Are you familiar with the artist's work?

10 Responses

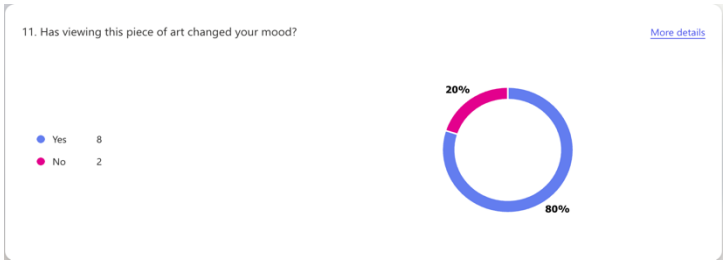
ID	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	No
5	anonymous	No
6	anonymous	No
7	anonymous	No
8	anonymous	No
9	anonymous	No
10	anonymous	No

Question eleven

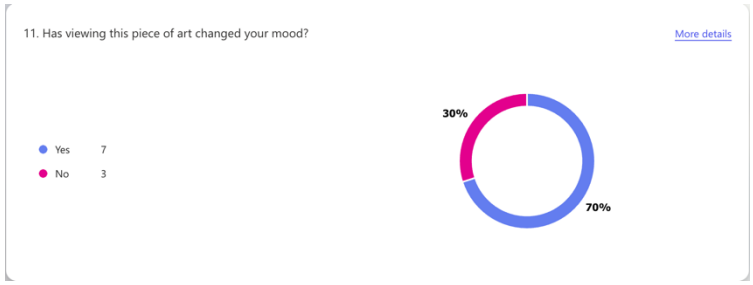
Painting 1
Group A

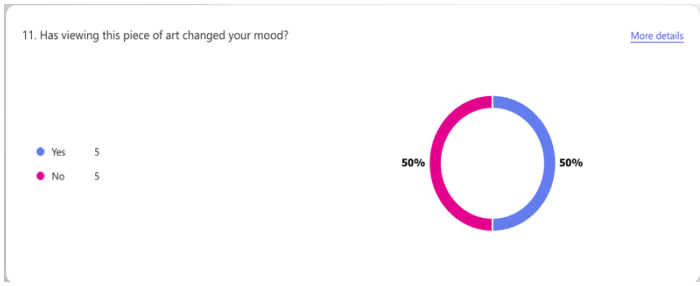


Painting 2
Group A

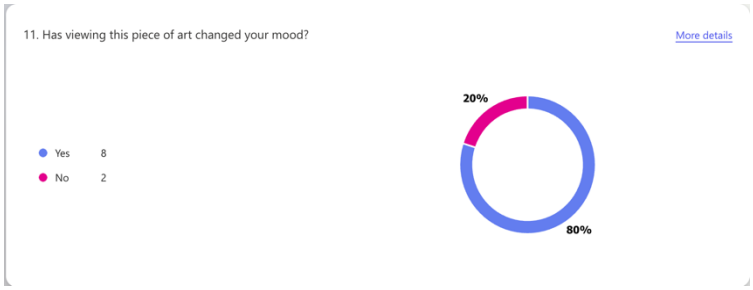


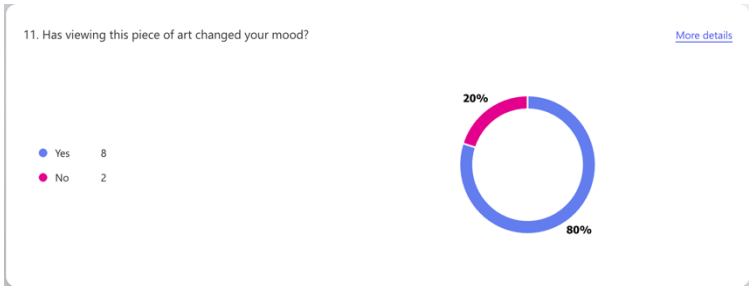
Painting 1
Group B





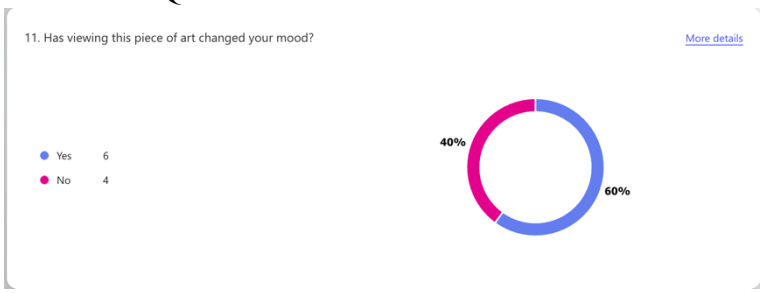
Painting 1
Group C



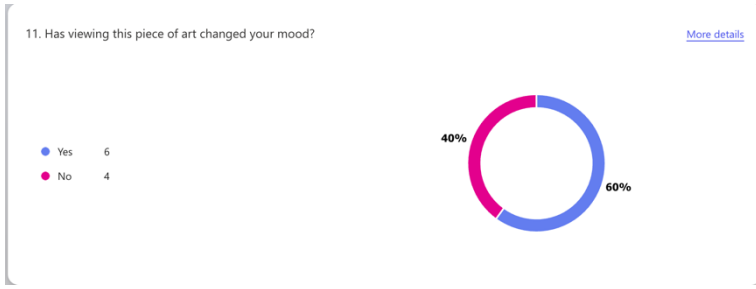


Painting 1
Group D

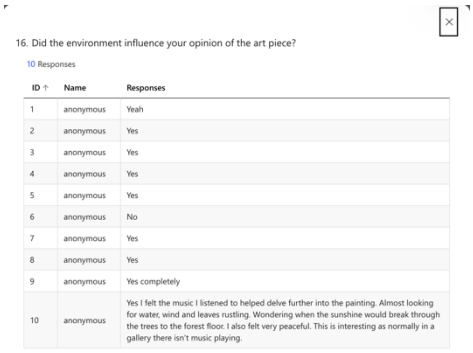
Question sixteen



Painting 2
Group D



Painting 1
Group A

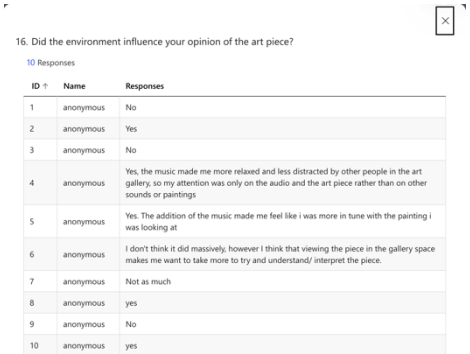


16. Did the environment influence your opinion of the art piece?

10 Responses

ID ↑	Name	Responses
1	anonymous	Yeah
2	anonymous	Yes
3	anonymous	Yes
4	anonymous	Yes
5	anonymous	Yes
6	anonymous	No
7	anonymous	Yes
8	anonymous	Yes
9	anonymous	Yes completely
10	anonymous	Yes I felt the music I listened to helped delve further into the painting. Almost looking for water, wind and leaves rustling. Wondering when the sunshine would break through the trees to the forest floor. I also felt very peaceful. This is interesting as normally in a gallery there isn't music playing.

Painting 1
Group B

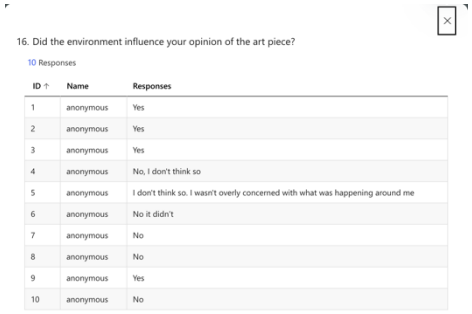


16. Did the environment influence your opinion of the art piece?

10 Responses

ID ↑	Name	Responses
1	anonymous	No
2	anonymous	Yes
3	anonymous	No
4	anonymous	Yes, the music made me more relaxed and less distracted by other people in the art gallery, so my attention was only on the audio and the art piece rather than on other sounds or paintings
5	anonymous	Yes. The addition of the music made me feel like i was more in tune with the painting i was looking at
6	anonymous	I don't think it did massively, however I think that viewing the piece in the gallery space makes me want to take more to try and understand/ interpret the piece.
7	anonymous	Not as much
8	anonymous	yes
9	anonymous	No
10	anonymous	yes

Painting 1
Group C

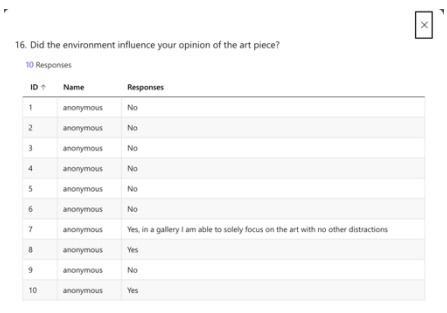


16. Did the environment influence your opinion of the art piece?

10 Responses

ID ↑	Name	Responses
1	anonymous	Yes
2	anonymous	Yes
3	anonymous	Yes
4	anonymous	No, I don't think so
5	anonymous	I don't think so. I wasn't overly concerned with what was happening around me
6	anonymous	No it didn't
7	anonymous	No
8	anonymous	No
9	anonymous	Yes
10	anonymous	No

Painting 1
Group D

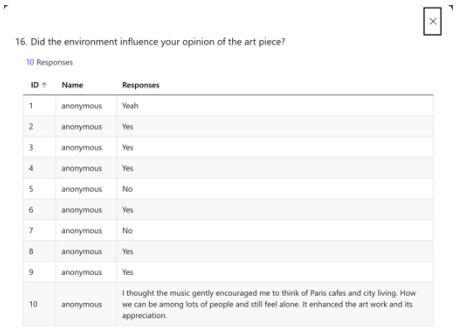


16. Did the environment influence your opinion of the art piece?

10 Responses

ID ↑	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	No
5	anonymous	No
6	anonymous	No
7	anonymous	Yes, in a gallery I am able to solely focus on the art with no other distractions
8	anonymous	Yes
9	anonymous	No
10	anonymous	Yes

Painting 2
Group A

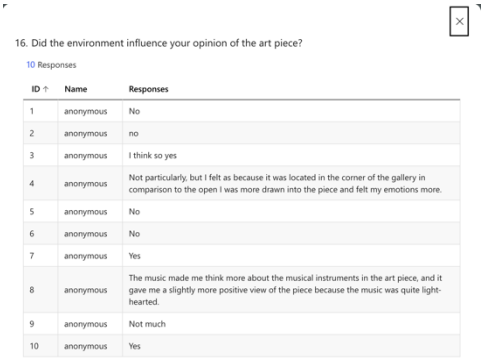


16. Did the environment influence your opinion of the art piece?

10 Responses

ID ↑	Name	Responses
1	anonymous	Yeah
2	anonymous	Yes
3	anonymous	Yes
4	anonymous	Yes
5	anonymous	No
6	anonymous	Yes
7	anonymous	No
8	anonymous	Yes
9	anonymous	Yes
10	anonymous	I thought the music gently encouraged me to think of Paris cafes and city living. How we can be among lots of people and still feel alone. It enhanced the art work and its appreciation.

Painting 2
Group B

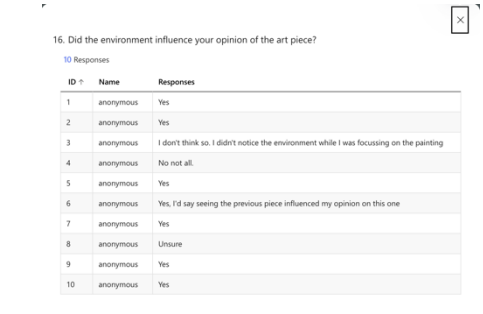


16. Did the environment influence your opinion of the art piece?

10 Responses

ID ↑	Name	Responses
1	anonymous	No
2	anonymous	no
3	anonymous	I think so yes
4	anonymous	Not particularly, but I felt as because it was located in the corner of the gallery in comparison to the open I was more drawn into the piece and felt my emotions more.
5	anonymous	No
6	anonymous	No
7	anonymous	Yes
8	anonymous	The music made me think more about the musical instruments in the art piece, and it gave me a slightly more positive view of the piece because the music was quite light-hearted.
9	anonymous	Not much
10	anonymous	Yes

Painting 2
Group C

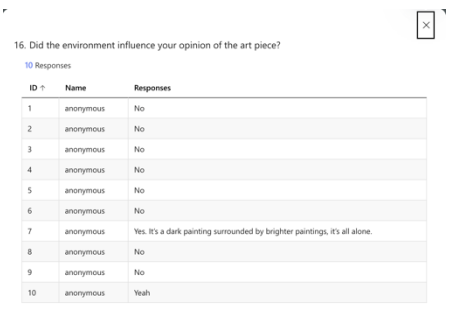


16. Did the environment influence your opinion of the art piece?

10 Responses

ID ↑	Name	Responses
1	anonymous	Yes
2	anonymous	Yes
3	anonymous	I don't think so. I didn't notice the environment while I was focussing on the painting
4	anonymous	No not all.
5	anonymous	Yes
6	anonymous	Yes, I'd say seeing the previous piece influenced my opinion on this one
7	anonymous	Yes
8	anonymous	Unsure
9	anonymous	Yes
10	anonymous	Yes

Painting 2
Group D



16. Did the environment influence your opinion of the art piece?

10 Responses

ID ↑	Name	Responses
1	anonymous	No
2	anonymous	No
3	anonymous	No
4	anonymous	No
5	anonymous	No
6	anonymous	No
7	anonymous	Yes. It's a dark painting surrounded by brighter paintings, it's all alone.
8	anonymous	No
9	anonymous	No
10	anonymous	Yeah