

Article



# Exploring music and visual art relationship through inquiry graphic: A semiotic analysis of visual art students' work

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#### **Abstract**

This research explores the relationship between music and visual art through the visual artworks of four Indonesian students. Focusing on eight paintings inspired by two types of instrumental music, the study employs a qualitative multi-method approach, including Inquiry Graphics and Peircean's semiotic analysis, to understand the creative process. The study focuses on eight paintings inspired by two instrumental pieces: Yiruma's "River Flows in You" and Clifford Brown's "Joy Spring." Through free-painting experiments and semi-structured interviews, the research results in two key approaches to transduction (intersemiotic translation): one that reflects the formal qualities of music through visual elements and another that interprets the music through the lens of personal and cultural narratives. The result of this study underscores the value of multimodality in art education, showing how this approach enhances creativity and cognitive engagement across disciplines, including music, visual art, fashion, and product design.

## **Keywords**

Inquiry graphics, music, visual art, intersemiotic translation

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#### Introduction

Visual art and music are two different and distinct forms of human expression in art; however, from many studies, they are very much related. Their relationships have been researched and hypothesized by artists and musicians from time to time (Giannos et al., 2021; Liu, 2022; Spence and Di Stefano, 2022). Moreover, back then in the ancient era, music and dance were inseparable and interconnected with drawing (visual art) and paintings (Sookkaew et al., 2022). Although these types of art may seem different in terms of their form (visual and auditory), when they are studied and analysed, it becomes clear that there are similarities between these two art forms. Both visual art and music relate to the use of space, rhythm, and movement that can express emotional responses and experiences of their viewer, listeners, or even the creators themselves. This also applies to other visual-based majors, like product design or fashion design. Despite these similarities, visual-based majors like art and design, and music are so widely separated on the levels of education (universities and higher education) that it is becoming difficult for students and teachers to see the relationship and interrelations between those two or to study them in close combinations (Elderfield and Munro, 1971). Moreover, the borders between these two forms limit artists' creative process because of the traditional perspective, which believes that each art has certain "limits" that separate the aesthetic aspect of each form.

Nowadays, where collaboration has become significant in art research, the interrelations of art have become a key aspect in expanding the possibilities of how art should be shaped. This change is closely related to vertical and horizontal discourses in art education. Vertical discourse refers to a structured approach to knowledge, and it is often found in traditional academic settings. We can think of it as the traditional academic path, where knowledge is organised linearly. This is the specialised, abstract knowledge we often find in formal education settings. Specifically, in art education, vertical discourse has historically separated different art forms—such as painting, sculpture, and music—each taught in isolation with its own distinct body of knowledge and skills (Bernstein, 2000). However, this vertical discourse often aligns with an *ocularcentric* paradigm (ocularcentrism), which privileges visual perception as the primary mode of understanding and knowledge creation (Kavanagh, 2004). In such a context, other sensory modalities, such as auditory or tactile experiences, may be undervalued or excluded from the educational framework, reinforcing a separation between different art forms and limiting the potential for interdisciplinary creativity.

On the other hand, horizontal discourse is more context-dependent and flexible. It focuses on integrating knowledge across different fields, increasing and stimulating creativity, ensuring collaboration, and applying knowledge in diverse, real-world contexts (Bernstein, 2000). In art education, horizontal discourse is very much needed because it allows for a more interconnected and interdisciplinary approach. Here, the different art forms and subjects are blended to enrich the learning experience. This is also supported by Canning (2007), who stated that knowledge-building is not only about cognitive processes. To create an inclusive art education, it is problematic to categorise different types of reasoning as superior or inferior.

This movement towards horizontal discourse is embedded in the integration of arts, an approach teachers and lecturers use to stimulate students' creativity through collaborative works involving multiple art forms or subjects (Richard and Treichel, 2013). By integrating different art forms, educators provide students with multiple learning modes, allowing them to build their creativity and develop a deeper understanding of the arts and other subjects. Building up creativity is crucial in art education and across the curriculum. Although the significance has gained attention among art educators, there is not much scholarly research focusing on the transitional elements associated with this phenomenon and why the artists who take part in the process choose the elements to represent the other art form, which is essential. This is also Wibisono's concern, as stated in his article that the intermedial study that allows us to explore heterogeneous relationships is not discussed much (Wibisono, 2023). In this context, understanding the messages beyond the surface of art forms becomes crucial. When artists integrate multiple art forms, they are not just mixing different mediums but also blending things in the distinct ways these mediums communicate meaning. Each art form has its language and its way of carrying messages, emotions, and ideas (Bautista et al., 2015). For instance, music's flexible and temporal nature can trigger feelings and moods that a static visual image might struggle to capture. On the other hand, the detailed symbolism in visual art can articulate complex concepts that might be challenging to express through music alone. The integration of arts, therefore, offers a multi-layered canvas for communication. This process of blending different modes of expression is known as multimodality. Multimodality uses multiple forms of communication; the forms (modes) can be visual, auditory, textual, spatial, or gestural. This study will cover auditory and visual modes to gain complex and layered meanings.

This complexity also presents a challenge: the whole meaning behind an integrated artwork may only be entirely held by understanding how each art form contributes to the overall message. This is where the study of the cognition of music and visual art becomes essential. By understanding how our minds process and interpret these different forms, we can decode the more profound messages that occur when combined. The decoding process needs an approach that includes multimodality. In art and education, students often interact with visual materials in ways that require more than just surface-level interpretation. Lakovic defined this as a "higher education void" that neglects sensory experiences with abstract reasoning. Hence, they need to connect these visuals to broader conceptual frameworks - where Inquiry Graphics becomes important (Lackovic, 2017). Inquiry Graphics is an essential approach in art education that aligns visual images and conceptual ideas to enhance students' deeper learning and thinking. As Wibisono (2023) pointed out, the transitional elements in these intermedial studies—those moments where one art form transforms or translates into another—are often overlooked in scholarly research. However, these elements are the primary keys to understanding why artists make confident choices during translation and integration. Why, for instance, might a musician choose a specific visual motif to accompany their composition, or why might a visual artist select a particular musical style to accompany their work? These choices are not arbitrary; they are efforts to deliver something beyond what either art form could communicate alone. In this study, the participants translate auditory stimuli (music) into

visual representations. This process directly challenges the ocularcentric bias by integrating sound—a non-visual, sensory experience—into the traditionally visual-centric painting practice. By studying these interrelations and the cognition behind them, we gain insight into the creative process and the complex, often hidden messages that artists aim to express. This deeper understanding enriches art education and our appreciation of art, allowing us to engage with it more profoundly. In an era where collaboration and integration are increasingly shaping the future of art, this kind of interdisciplinary study is not just beneficial—it is essential.

This interdisciplinary approach to art aligns closely with Peirce's semiotic theory, which serves as a foundation for understanding how meaning is constructed and communicated across various mediums. Semiotics covers the approach and the understanding of meaning, culture, behaviour, and life through signs. Signs can be visual, musical, gestural, or verbal. Peirce's theory of semiotics forms a foundation for contemporary semiotic pedagogy: (1) each piece of reasoning is built on the reasoning that came before it, (2) the signs we encounter in the world help shape our thoughts, and (3) thinking itself is a kind of sign process, a part of how we understand and make sense of things (Smith-Shank, 2007). Smith-Shank (2007) explored these ideas in 2007, noting that art education is moving away from rigid, traditional approaches and becoming more interdisciplinary, with a strong focus on semiotics and visual culture studies until now. Building on Peirce's ideas, Jakobson (1959) further expanded this concept through intersemiotic translation (IT). Jakobson's intersemiotic translation (IT) is essentially a development of Peirce's semiotic principles, applying them to the interpretation and translation of meaning across different sign systems—such as from music to visual art. Jakobson (1959) used the term 'intersemiotic translation (IT)' for defining a process of interpretation between different types of signs. In my study, I employ intersemiotic translation - to examine how different musical genres and the presence of lyrics can be translated into visual artworks. Several artists have experimented in this area that they produce art from one sign system into another sign: Wassily Kandinsky who translated Schoenberg's musical works titled Impression into paintings (Ruscsanda, 2020), and Paul Klee, who interpreted polyphonic sounds into paintings by alternating dark and lights.

As stated, Intersemiotic Translation (IT) translates or transforms meaning from one semiotic system to another. This concept, first introduced by Roman Jakobson, involves the interpretation and conversion of signs. While traditional translation deals with the transfer of meaning between languages (interlingual translation), IT goes beyond linguistic boundaries. It includes the translation of verbal signs into non-verbal signs (such as translating a poem into a painting) or the translation of non-verbal signs into other non-verbal systems (such as adapting a film into a dance performance). Therefore, there are several types of IT according to Kourdis and Hartama-Heinonen (2023): adaptation (refers to translating a text from one medium to another); interpictoriality (refers to translating or transforming one image into another) ; transduction (refers to translating meaning from one semiotic mode to another). This involves a shift in the semiotic material, considering the different affordances and constraints of the modes involved (Kress, 2000; Newfield, 2009).

From the definition of each type of Intersemiotic Translation (IT), this research falls under the category of transduction. Transduction involves translating meaning from one semiotic mode to another, such as transforming music (aural) into visual art (visual). This shift from sound to image requires consideration of each mode's different affordances and constraints. For instance, musical elements such as rhythm, melody, and harmony must be reinterpreted and represented through visual elements like colour, form, and composition. The use of Peircean's semiotics and Jakobson's intersemiotic translation (IT) in this study aligns with the multimodality studied in this research. While Jakobson's intersemiotic translation (IT) is based on Peirce's semiotics, Peirce's framework itself provides a way to integrate various semiotic modes (visual, auditory, textual, etc.) within a single analytical framework, which is essential for understanding the comprehensive meaning-making process in multimodal artefacts. This is because Peirce categorises signs into three main types—icons (signs that resemble their objects), indices/index (signs that are directly connected to their objects), and symbols (signs that have an arbitrary or conventional relationship with their objects). These categories are applicable across different semiotic modes, allowing visual, auditory, and textual signs to be analysed using the same basic principles (Bateman, 2018a). By analysing the visual artworks based on music using Peircean's semiotics, we can examine how the structured, formal elements of art (vertical discourse) and the more fluid, contextual interpretations (horizontal discourse) are reflected and interact within the artwork.

Figure 1 shows the conceptual framework of this research, where the interrelationships of art forms (music and visual art) are the key point of this research. It will be identified by using the Inquiry Graphics approach, which is a free painting study to produce artworks that are based on music. As Inquiry Graphics grounded in semiotic theory, particularly Peirce's triadic model of signs, it also emphasises the relationship between the

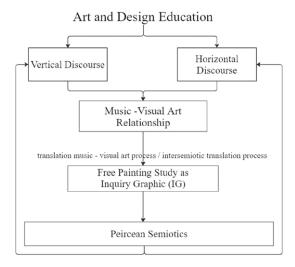


Figure 1. Conceptual framework (source: Author).

Representamen (the form or image), the Object (the concept or idea being represented), and the Interpretant (the interpretation or meaning derived from the interaction between the form and the concept). The approach is particularly effective in exploring and communicating complex concepts, as it allows students to visualise and thereby better understand abstract ideas, like music (Lacković, 2017).

In this study, the focus is on the visual art and design Indonesian students' artworks, highlighting their ability to translate music's emotional and sensory dimensions into visual compositions through the lens of intersemiotic translation. I also explore explicitly how artistic expression in one form (music) inspires and influences another form (visual art) through the transition of each art form's elements. Therefore, the questions I am addressing in my study are: (1) what are the relationships between musical elements and visual elements that occurred in students' artwork? (2) how can this approach can be applied in art education?

The findings of my study have the potential to contribute to art education and as well practitioners—for artists and researchers: (1) understanding how students represent music in visual art through painting can have implications for both music and visual art education. This supports Barton and Riddle's article about culturally responsive and meaningful music education through multimodality and meaning-making. In their work, students need to make meaning in different learning contexts, and how it is very important to understand different modes of communication to improve teaching practices (Barton and Riddle, 2021). (2) transferring meaning from one sensory modality to anotherprovides valuable insights into how students translate their auditory experiences of music into visual expressions. This research aspect can shed light on the intricate connections between different artistic expression forms. Crowley (2022), in her PhD thesis, identified the relationship between visual art and autoethnographic practices, particularly in how personal and cultural experiences are embedded in and revealed through art. These experiences are 'invisible', and these 'invisible data' in art - cultural, or emotional elements are not immediately apparent without context. These invisible data can be implemented in any art form - music, visual art, dances, etc. By exploring how intersemiotic translation is used to explain the translation between two art forms in educational contexts, it can reveal or obscure these invisible elements.

This article is intended for educators, researchers, and practitioners in art education, semiotics, and interdisciplinary studies. It aims to provide both theoretical and practical contributions. Theoretically, it introduces a framework for understanding how different art forms can communicate and translate meaning across mediums. In practice, it also suggests methods that teachers can use to stimulate creativity and deepen students' understanding of art through interdisciplinary collaboration.

# Methodology

The methodology used in this research is multi-method qualitative, as it combines several types of qualitative methods (in this research they are interviews, paintings, and observations) to gain comprehensive data (Creswell, 2015; Silverman, 2024). The process began with students listening to a selected song. Afterward, they were tasked with

creating visual artworks representing their song interpretation, facilitating an intersemiotic translation (transduction process) where the auditory medium (music) was translated into a visual medium (art). Following the creation of these artworks, I conducted semi-structured interviews with the students to capture their thought processes, emotional responses, and the rationale behind their artistic choices (Figure 2). These interviews provided qualitative insights into students' engagement with the translation process from music to visual art. The final stage of the methodology involved a detailed intersemiotic translation process and semiotic analysis of the students' artworks. This analysis focused on identifying how different semiotic elements—iconic, indexical, and symbolic signs—were used in the artworks to convey the meaning of the original musical piece and map the translation process. This mixed-method qualitative approach allowed for a comprehensive exploration of the students' creative processes, combining their visual outputs with personal narratives and a rigorous semiotic analysis of their work.

The concept of "drawing/painting music" itself can be traced back to the early 20th century. One of the earliest pedagogical methods for these experiments was developed by Viennese art professor Oskar Rainer in the 1900s, known as "Musikalische Graphik" (Musical Graphics). This method was first implemented in Austrian schools. Rainer's "Musikalische Graphik" method assumed the general validity of colour and formed analogies to music, emphasizing cross-modal connections between auditory and visual modalities (Elkoshi, 2019; Rainer, 1925). This method was then also adopted by Athanasoupoulos and Antvic (2018) to look for conceptual integration of sound and image as perceptual modalities. In this study, I adopt this method and give the students the freedom to paint anything they want with the colours they choose. While the "Musikalische Graphik" method utilized multimedia elements like musical films with bright colors and shapes, which may have influenced the visual outputs, my approach in this study prioritizes audiovisual independence. By letting participants respond to music based solely on their personal auditory experiences without external visual stimuli, it will allow for a more authentic and individualized expression of the interplay between music and visual art.

# Free-painting study as inquiry graphics

As written before, I adopted the free-painting study as my research method, engaging with its relatively novel practice in Indonesia. This study centres around using a free-painting experiment as the central component of the process. This method aligns with the Inquiry

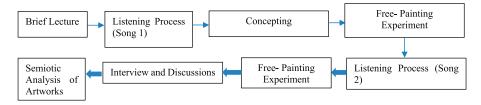


Figure 2. Research methodology diagram (source: author).

Graphics approach in education, as this process is multimodal, it encourages students to explore how auditory elements (like rhythm, melody, or emotion) can be conveyed visually. I find this method helpful because, using this, I can guide students to not only create art based on their emotional or sensory response to the music but also to reflect on and articulate the conceptual relationships between the music and their visual output. This might involve asking them to explain why they chose certain colors, shapes, or forms to represent specific elements of the music, thereby deepening their understanding and expression (Scardamalia and Bereiter, 2006).

Before starting the painting process, I provided participants with a foundational understanding of musical and visual elements to enhance their free-painting activities. This process is related to the vertical discourse discussed earlier, where the students get the basic theoretical explanations of visual art elements and musical elements. During this process, I explained the following:

Although these students are from art and design backgrounds, I gave them lecture materials about visual elements. These include line, color, shape, texture, and space that can create visual effects in artwork or design (Kandinsky & Bahr, 2021). Like visual art and other artistic disciplines, music can depict emotions, tell stories, and create atmospheres (Elderfield and Munro, 1971). The elements and structure of music are also crucial to create a complete musical composition. According to Jamalus (1988), the elements of music are divided into two major groups: basic elements and expressive elements. Basic elements include the fundamental components of music, such as melody, rhythm, harmony, and song structure. Expressive elements, on the other hand, shape the mood and feelings in music and include aspects such as song tempo, dynamics, and timbre (also known as tone colour). By knowing the fundamental principles and elements, the students will gain a deeper connection with the music when they listen to it.

Following ethical guidelines, I obtained informed consent from four students from art and design backgrounds at a local higher education in Surabaya, providing them with the materials necessary for their creative engagement. After listening to a selected song, the participants were asked to engage in a free painting activity. The chosen song is intended to bring specific emotions and themes related to creativity and self-expression. Before the experiment, informed consent is obtained from each participant, and the ethical guidelines of the institution are followed. The participants are also provided with art supplies, including paints, brushes, and a designated painting area (canvas). They are instructed to freely express themselves through painting for 40 min while the selected song plays in the background. This method in this study offers an opportunity to do things that the conscious mind may suppress or even not realise (Edgar, 1999). Figure 2 shows the methodological flow of this study, starting from the brief lecture, followed by the listening process, transforming process, and analysis.

To design a reliable music-drawing study, I chose two distinct songs, each varying in genre and elements, to examine how these factors influence visual translation. The instrumental songs were picked based on the consideration of musical genres and musical elements of the songs.

In choosing the songs used for this study, I looked for two songs with different genres and musical elements. This musical genre is a group of musical pieces that follow a set of

socially agreed-upon rules. These rules guide how such music is created, performed, and understood within a community. Based on these musical genres and elements, the songs picked are the followings:

- (a) Yiruma River Flows in You (Musical Genre: Contemporary Pop Instrumental, New Age stated by Murti (2024))
- (b) Joy Spring Clifford Brown (Musical Genre: Jazz Instrumental)

These two songs are different in their musical genres, elements (including tempos, timbres, and rhythmic patterns), and the songs' types.

During the analysis, I used intersemiotic translation (transduction) to frame the connections between different sign systems, accepting their complexity and sometimes partial correspondences. While achieving an exact one-to-one correspondence between levels of different sign systems may be challenging, it is still possible to comprehend the relationships among diverse multilevel sign systems. An example of this translation is the transformation of a literary sign system into dance, where aspects such as language and emotions can be represented through movement, lighting, clothing choices, and how space is arranged (Aguiar and Queiroz, 2013).

# Credibility and ethics

Qualitative research demands a high degree of credibility. I conducted in-depth interviews following the painting sessions to gain deeper insights into the participants' creative process. According to Yildirim and Simsek (2005), when the researcher is close to the data source, experiences the real-life situation in the field, and uses appropriate methods for data collection and analysis, it can improve the reliability of qualitative research results. In this case, my proximity to the data sources, along with data collection and analysis, has supported the reliability of my findings.

I engaged four student volunteers from visual art and design, ensuring their informed consent for this study's use of photographs, audio recordings, videos, and artwork. All the data was utilised while adhering to privacy regulations, ensuring that participants' actual names and private information were not revealed. Consent forms are available in the appendix of my research documentation.

# Result and discussion

In this section, I revisited the steps that form the individual creation process. Each participant, equipped with private headphones, listened to the music, 'River Flows in You' by Yiruma being our first piece for the experiment. They were encouraged to engage with the music repeatedly to note down their emotional and cognitive reactions to the auditory experience. After that, it was time for conception. Despite none of the participants having a background in music, they were asked to translate their mental sensations into scribbles and sketches, understanding the feelings that came during the listening process. They could take notes or sketches, whichever they were comfortable with. After that, it was the

phase of Transforming Music into Painting. The participants were surrounded by various painting tools and were given 40 min to paint their reactions towards the music. This process was conducted twice with a different musical piece to enrich the experiential data. The first song was *River Flows in You*, and the second was *'Joy Spring'* by Clifford Brown. After the participants had created the visual art in response to two different songs, I engaged them in in-depth interviews. These discussions were pivotal as they offered insights into their interpretations of the music. They shared their thoughts on the pieces.

# Music and visual elements correspondences in compositions

Reflecting on the intersections of musical and visual elements within my study, I used literature (journals) and my interpretation to dissect the musical elements that occurred in each song. Afterwards, I analysed the artistic responses of participants, who are the students at visual art major, as they engaged with compositions and transformed these auditory experiences into visual art forms.

First song: Yiruma – the River Flows in You. River Flows in You is a pop-classical instrumental piece by Yiruma, whose real name is Lee Ru Ma, a Korean-British musician. According to Murti (2024), in her article titled "Aesthetic Review of River Flows in You by Yiruma", it is written that this song has a repetitive structure, with variation in the middle. "River Flows in You" is classified as "New Age" / Contemporary Pop because it combines classical and pop elements. The composition is played using the instrumental piano without vocals/lyrics. It uses the A major scale with a 4/4-time signature and a tempo of 70 bpm. As explained by Murti (2024), the form of the song is A- B, A'- B'- C, A'- B'- and A as an ending. Murti analysed this song based on the aesthetic review and principles that occur in the song. However, in this article, we also map the song's elements.

In terms of the musical elements of River Flows in You, this song is simple yet very dynamic. At the beginning and part A (bar 6 - 13) of the song, the song is played slowly using the dynamics pp (pianissimo), p (piano) and mp (mezzo piano) to create a sense of calm and solitude, resembling a gentle river flow. As it transitions into part B, the tempo gradually increases, using the dynamic mf (mezzo forte) to create tension and intensity, resembling a rapidly flowing river after part A. The tempo slows down again during the transition back to part A. There are several repetitions of parts A and B with similar rhythm and dynamics, interspersed with a part C at the bar 34-37, serving as an interlude to mediate the repetitions and prevent listener confusion due to the many repetitions of parts A and B (Murti, 2024). The structure of this song is symmetrical because the question-and-answer phrases are of equal length. The rhythm pattern used is regular, prioritising simplicity in theme development and avoiding complexity. The harmony is also kept simple, with the chord progression repeated using arpeggios. This approach is meant to highlight the right-hand melody, which makes Yiruma's composition "River Flows in You" sound simple and uncluttered when listened to. In terms of the background of the story, River Flows in You, according to Yiruma, was inspired by the Irish dance performance Riverdance and some of his experiences when he was in his 20s. He was

influenced by feelings of love, romance, and nostalgia. He wrote this piece in his early 20s, a time when he was particularly captivated by the emotions. This makes "River Flows in You" not just a technical exploration of musical patterns inspired by dance, but also an expression of the romantic, sentimental, and nostalgic feelings he experienced during that time (Neas, 2024).

The artistic interpretations of the song by participants A to D were captured in Figure 3. Participant A translated the calm and melancholic tones of the song into a palette of blues, with visual emphasis paralleling the musical emphasis in part C. The interplay of visual elements like line, colour, and form with musical elements such as melody, harmony, and rhythm are evident in the corresponding tables, which capture the participants' translation of auditory stimuli into visual expressions. The journey starts on the top-left and ends on the bottom-right of the paper. The colour blue indicates calmness, which is the song's mood overall. The intro part was depicted by small lines, and in the centre, there is a big rectangle shape, which is the emphasis of the work – this is consistent with the principles of emphasis in the C part (interlude) of the song explained in Table 1. In the interview, the participant also said that the song ended in a quiet way (decrescendo), that is why Participant A drew small lines at the end of the drawing (bottom-right). Participant A was having a self-reflection when listened to the song. It reminds her of a memory that she once had, so there was a melancholic feeling about it. It was not all sad though, because at the end of the song, she found hope that was represented by the yellow coloured-rectangle on the bottom-right of the paper.

As I looked at the artwork of Participant B, it became clear that their visual representation is less about the literal translation of the song's structure and more about the evocation of an emotional journey—highlighting a progression from sadness to acceptance through 9 steps of colour gradation. There was also text inside the artwork written "tahap 1 – tahap 9; ya harus bisa!" (translation: step 1 – step 9; yes, we can do it!) This indicates how this participant wanted to express her optimistic feeling that she has to be able to overcome her problems. Beside the circle, she wrote "Selalu ada", meaning "It's always there" that she refers it to the problems in life. "After all, obstacles are the things that make us live" – Participant B. Participant B was associating the song's mood with her feelings and personal matters, which is interesting how one song can be



Figure 3. River flows in you-inspired painting from participant A - D (left to right: A, B, C, D).

**Table 1.** Participant perceptions of the song River Flows in You.

Participant	Perception of the story , thoughts
A	"The song is not sad but has a melancholic vibe. It reminds me of a memory that keeps occurring, but I cannot forget. There is a nostalgic feeling, but I cannot decide what it is. However, at the end of the song, I feel hope and light"
В	"This song started very depressively. I feel that at some point, we must let go of things that do not belong to us. The melody represents a melancholic and sad problem in life, so when the song flows and comes to an end, I notice that the melody stays there – the problems are still there, and we must continue living. Afterall, obstacles are things that make us live. Even though the song is sad, I feel that there is an acceptance, and it walks toward a brighter path"
С	"To me, this song is about a goodbye. I had a movie inside my head when it was played. There was a happy couple; they lived by the beach, and they liked watching the sunset together. They had a son together, and they were very happy. One day, the father fell sick, and he died. The beach was the place to reminisce about the father. It is a sad story"
D	"The song was about serenity. In this song, I can concentrate on the flow of the music because it brings calmness and tranquillity. Every melody feels like a drop. I don't have any scenario for this song, but instead, I chose to paint it based on the flow of the songs"

interpreted in so many ways. Participant B's sketching journey starts at the top to the end (bottom) of the paper. However, it became clear that Participant B's drawing is focused on the journey of self-healing. As Participant B stated, the acceptance was the part that ends the composition; that was why the circular shape started in black colour, and as it grew bigger, the colour got lighter. Participant C's piece presents a narrative of farewell, wherein the visual emphasis on separated human silhouettes resonates with the song's themes of departure and remembrance. This interpretation underscores how personal experiences and emotional contexts shape artistic representations. The use of colours in this painting is also distinct. There is a pink and blue sky, with orange as land. The depiction is clear that is a shape of human body. In the interview, Participant C stated that the song is indeed melancholic, and the overall mood is nostalgic and sad.

Finally, Participant D's rendition is a study in tranquility, where the piano's timbre is mirrored in the painting's single-hued colour scheme, and the dynamism of the melody is depicted through the intensity of points across the canvas. This artwork, as seen in Figure 4 (on the right), showcased an abstract yet solid connection between the music's timbre and the artwork's colour dynamics. In the interview, Participant D stated that she felt melancholy when listening to the song, but when she was asked to paint whatever she had in mind, she chose to concentrate on the timbre and the dynamics of the song that she can feel.

Table 2 illustrates the alignment between the musical elements of "River Flows in You" and the corresponding visual elements in the paintings by Participants A, B, C, and D. Overall, Participants A-D depicted the song in a combination of personal experiences,



Figure 4. One of the students creating the artwork.

emotions, and cognitions. They also captured the timbre of the musical instruments, the rhythm, and the dynamics of the songs, although they did not have any musical background.

In the case of Participant A, not all song elements were depicted in the painting, but there was a pattern. Participant A painted the song River Flows in You from the beginning until the ending part and noticed a 'new' and 'different' pattern in the song (the "C" part) – an emphasis depicted by a big blue rectangle shape. Also, Participant A catches musical elements such as melody, harmony, and rhythm. However, Participant A thought of her past memories, and she represented in pieces of line and small shapes, just like how the melody. This is interesting because Participant A has a reflection of her life but also catches the musical elements of the song. The musical elements Participant B painted were the repetitive melody and the harmony, which is also abstractly depicted. Participant B did not represent the music based only on the form; instead, this participant connected their own experience when hearing the song. The combination of warm and cold colours in the artwork represents the sad and melancholic vibe and the 'acceptance' at the song's end. This is also an exciting finding that such a song can act as a self-reflection and healing process. Participant C painted two people standing separately from each other. Here, the painting is a personal or subjective representation of the music, influenced by the participant's contexts and perceptions. Lastly, Participant D's approach focused on the form of the song, enabling the depiction of musical elements in the song (melody, harmony, timbre, and dynamics). Participant D shows these elements in colour and form. The colour intensities are varied, depending on the dynamics; even the choice of the colour is based on the timbre.

Participants A,B, and C tend to use a combination of warm and cool colours for their artwork. Warm colours, such as yellow, orange, and red, are often associated with increased arousal and positive emotions (Greene et al., 1983). These colours, mainly yellow and orange, used in learning materials can enhance students' learning by making the materials feel less complicated and increasing motivation (Plass et al., 2014). On the other hand, cool colours, such as grey, blue, green, and violet, are generally associated with less arousal compared to warm colours. Blue and green are often associated with calmness, while violet is less stimulating than warm colours like red.

 Table 2.
 Music and visual elements in paintings of participants from based on "River Flows in You" music elements

		Participant A	nt A	Participant B	ıt B	Participant C	nt C	Participant D	t D
Element (music)	Characteristic	Visual element	Characteristic	Visual element	Characteristic	Visual element	Visual element Characteristic	Visual element	Characteristic
Melody	Repetitive melody	Line	Repetitive lines, short and long lines. Small and short lines indicate the fast melody	Shape	Repetitive shapes (circles) indicate a melody that is also repetitive			Shape	The use of repetitive form (points/drops)
Harmony	Simple melody and chord, repetitive arpeggio	Colour	The combination Colour of warm and cold colours used created harmony	Colour	The combination of warm and cold colours used created harmony	Colour	The combination of warm and cold colours used created harmony	Colour	One colour (blue) was used with different intensities
Rhythm	%, %, 1/8, 1/16, Line 1/32	Line	Small and short lines indicate the fast melody rhythm	r		1		Shape and colour	The use of repetitive form (points/drops), and different intensities indicate the fast and slow
Tempo Timbre	70 bpm Piano							Colour	melody The use of single-colour

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		Participant A	ıt A	Participant B	nt B	Participant C	ıt C	Participant D	t D
Element (music)	Characteristic		Visual element Characteristic	Visual element	Visual element Characteristic	Visual element	Visual element Characteristic	Visual element	Visual element Characteristic
Dynamics	Pp (very soft) – p (soft) – mf (moderately loud)			1	1		1	Colour	Colour The different intensities of colour (pp-faded, mf-deen colour)
Principles Repetition Yes	Yes		Different shapes, each form		Yes		Yes		Yes
Symmetry Symmetry Emphasis Yes (C)	Symmetry Yes (C)		Symmetry Yes (big blue rectangle)		Asymmetry Yes (circle)		Asymmetry Yes (human Figure)		Symmetry Yes

Joy Spring – Clifford Brown. Turning to "Joy Spring" by Clifford Brown, I examined the jazz piece as a new auditory canvas. Clifford Brown, born on October 30, 1930, in Delaware, was a highly influential jazz trumpeter (Meadows, 2011). The song "Joy Spring" by Clifford Brown consists of two primary forms: A and B. Brown's composition is structurally outlined in A-A'-B-A'2 format, where Part A and A' have identical chord progressions, but part A' is raised by a half note from part A (half note higher). This is followed by part B, the song's second section. Part B introduces a new form, where the melodic structure contrasts with the other parts of the song. However, part B seems designed to act as a bridge or transition to the initial theme, part A'2. A'2 is a repetition of the form of A found at the beginning of the song. The difference is that A'2 does not fully adopt the melody found in part A'. This is understandable as A'2 is created as a resolution to the song's end and as a preparation to transition to the next chorus (Al Fatah, 2017).

This complex composition (shown in Table 6 and Figure 5), offered different challenges and inspirations for the participants, intriguing me to look deeper into how such a dynamic and layered piece would be translated into visual form. The timbre found in the song also varied, as it contained trumpet, piano, bass, drums, and saxophone instruments. The B part can act as an emphasis of the song (shown in Table 3) because it differs from the rest of the sections (A, A').

What makes the song "Joy Spring" interesting, especially for jazz musicians, is how it moves between different keys, which can be challenging to improvise. Musicians often like to improvise on this tune because of its smooth key changes and the way it modulates (changes keys) in a way that feels natural and seamless. According to Hillshafer (2019) in her article, Joy Spring was the pet-name of Brown's wife, Larue Anderson and this song was dedicated to her.

Figure 6 is the collection of artistic interpretations of Participant A, B, C, D of the song "Joy Spring".

Participant A used three colours (red, black, and gold) to depict Joy Spring. According to Participant A, Joy Spring is full of surprises; it has a happy mood with a stomping rhythm. When listening to the song, she felt she was at a party, and it was glamorous. Participant A also stated that without musical background, she cannot explain the song technically. Still, she can feel some repetitions in the melody, and a surprise in the middle (she depicted it as three stars). The black wavy lines were the melody and rhythm, and the red details (circles and other shapes) were the saxophone and trumpets.

Participant B created an abstract line with red dot in red, black, and gold colour. The colour that Participant B used is similar to Participant A. This might be a coincidence, so I mentioned this at the interview. Participant B said she was thinking about a high-class party, with gold and red confetti colours. Participant B also added a hand-written text at the bottom of the canvas: "peh kelarangen, ndak mampu" which means "too expensive, I cannot afford it". The thing that is too expensive according to Participant B is the party and that glamorous lifestyle. This is interesting because Participant B stated that this 'kind of party' was only for the rich, and it is not for her. During the interview, not many musical elements were explained by Participant B, instead, Participant B was telling me about how lively the party in the song depicted.

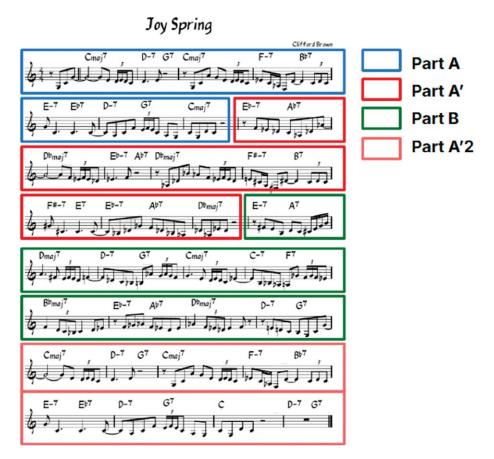


Figure 5. The structure of Joy Spring by Clifford Brown (modification of music sheet).

Participant C depicted Joy Spring in a figurative painting: two human, double bass-like shapes, some wavy lines, and geometrical shapes. The colours used were black, white, red, green, and goldish orange. As Participant C said, the choice of colours needed to be contrasted because every instrument's timbre is distinct in the song.

Participant D created an abstract painting out of the Joy Spring song, consisting of circular shapes and repetitive lines. Many circular shapes (cymbal-like shapes) are presented on the painting, and there are some repetitive straight, curvy, and zig zag lines. In the interview, Participant D mentioned that the drum (specifically cymbal) timbre was dominant, and the trumpet sound was also very distinctive. That is why Participant D created an abstract painting with many repetitive lines and circular motion lines. The trumpet was represented by curvy lines, and the repetitive lines were the constant rhythm and repetitive melodies.

Table 4 illustrates the relationship between the musical elements of "Joy Spring" and the corresponding visual elements in the paintings by Participants A, B, C, and D. As we

Table 3. Participant perceptions of the song Joy Spring.

Participant	Perception of the story, thoughts
A	"I know that this is a jazz-type of song, very unexpected. The song sparks many new ornaments in my head. However, it is not catchy, sometimes a bit random. I can imagine many musical instruments playing at the same time, and so many surprises in this song"
В	"I can imagine a high-class party, with confetti, gold and red decorations, crystals. The tempo makes me want to stomp and dance and it gives me a happy vibe. I can see a party with people dancing and the dance itself has pattern. The melody itself repetitive, so I kinda enjoy it, but surely that kind of party is not for people like me"
С	"Funny, the first thing that came to my mind was the tom and jerry cartoon. Every upbeat jazz song always reminds me of the movie. However, for this particular song, I can imagine a stage, with the jazz musicians playing the instruments on stage in a vintage setting. It is warm, I feel the light is orangish, and it is indeed nostalgic. There are several types of musical instruments that have different timbre, very contrast. I can see grains, that is why I picked crayon instead of other art supplies
D	"I feel happy. I concentrated on every timbre (I listened to trumpet and trombone), many popped melodies, spontaneous, witty and lively. I imagine cymbals and a form of repetitive melodies played by some types of instruments"



Figure 6. Joy Spring – inspired painting from Participant A – D (left to right: A, B, C, D).

can see from the table above, Participant A and D were the ones who created painting based on the form of the music. Participant A could detect the different song structure, the harmony, the timbre, and the melody – and pour them onto the canvas as abstract shapes. Participant D also did that, and even though during the interviews, they could not explicitly express every 'musical term' of it, they could feel the difference in timbre and melody. In the case of Participants B and C, both of them could feel the musical elements that occurred in the song. However, they created the painting based on their experience and created a figurative expression. This approach indicates a more experiential and narrative method in depicting a song, where the music could evoke personal memories or feelings that they can depict through more literal imagery.

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		Participant A	. A	Participant B		Participant C	rt C	Participant D	D
Element (music)	Characteristic	Visual element	Characteristic	Visual element	Characteristic	Visual element	Characteristic	Visual element	Characteristic
Melody	Repetitive melody in A and A', different melody in B	Line	Repetitive wavy lines	r				Line and shape	Repetitive small lines and shapes indicate the repetitive melodies with some variations
Harmony	Chromatic key schemes	Line and shape	The lines and shapes create a harmonious composition (the star shapes in the middle are a point of interest)			Colour	The colour combinations are said to be the harmony of timbres (different but create a whole)	Colour	The colour with contrast creates a harmony in the music shaped by different timbre
Song structure	A-A'-B-A'2	Shape	The different shape among lines indicates the different form (A and B)					Shapes and colour	The shapes with colour fills are for the fuller instruments section, and the ones that are thinner indicate the 'emptier' instruments section
Timbre	Trumpet, piano, bass, drums, tenor saxophone	Shape and colour	Red colour and different shapes indicates varied timbre	Line	Wavy lines associated with soft reed timbre (trumpet and saxophone)	Colour	Different colours indicate different timbre	Line and shape	Small, short lines indicate piano sounds, while way lines and circular shapes indicate fuller timbres, such as those of saxophones and trumpets
Principles Repetition Emphasis	Yes Yes (B)	Shape	Star shaped in the middle	Shape	Red circle	1			

Formal qualities of music in students' artistic responses. This study presents a unique exploration in which music can inspire visual art, particularly examining how different individuals interpret and translate auditory stimuli into visual forms. Through analyzing artistic responses to Yiruma's "River Flows in You" and Clifford Brown's "Joy Spring," we observe a remarkable diversity in the translation of musical elements—such as melody, harmony, rhythm, and timbre—into the visual language of painting. Participants A, B, C, and D, all students from a visual art university, brought their perceptions, emotional experiences, and technical understanding to their artistic processes. This finding is consistent with existing literature on the interrelations between visual art and music, which suggests that these two forms of expression, while distinct in their mediums, share significant overlaps in terms of their formal qualities and their capacity to convey emotional experiences (Giannos et al., 2021; Liu, 2022; Spence and Di Stefano, 2022).

We tried to compare all the data collected (paintings and interviews) and map how the visual elements presented are connected to each musical element of the song (form-based), as seen in Table 5 below:

Table 5 shows the varied visual elements that represent musical elements presented in the artwork. Through the various results, we were able to draw an association between the elements:

- (a) Melody and Line: Melody is the primary element in both songs, and it is commonly translated to Line. It aligns with the use of lines in Western musical notation representation of melody (Elkoshi, 2019).
- (b) Harmony and Colour: Harmony in both songs is dominantly translated into colour combinations.
- (c) Timbre and Colour-Shape: Timbre is translated to colour and shape elements, with different approaches. Wavy and circular shapes tend to create a warmer timbre, while shapes with angles tend to be associated with crisp sound.
- (d) Structure/form and Shape: Even though not many people understand the "structure"/"form" of a song, some could associate different shapes with different sections of the song (example: Participant A and the use of different shapes to indicate new sections of the song).

These results, of course, cannot be generalized to all visual art and design students. Instead, this study supports how multimodal approach are helpful to enhance students' creativities. Though these students do not have any background in music, they were able to identify the musical instruments, melodies, dynamics, and even the structure of the song and try to represent it in their own language (visual language). While Table 5 mapped the relationship between these elements in a form-based approach, interviews revealed that many visual elements in the paintings were not directly connected to specific musical elements. Instead, these elements were often tied to the personal narratives or emotional responses of the participants, highlighting the subjective nature of art interpretation and creation (Crowley, 2022).

Table 5. Mapping of musical elements and visual elements presented in artwork.

Participant	Musical element	Visual element	Visual element explanation
Song I: Riv	er Flows in You	(Yiruma)	
Α	Melody	Line	Repetitive length indicates melody length and tempo
В		Shape	Repetitive
D		Shape	Repetitive
Α	Harmony	Colour	Colour combination creates harmony
В		Colour	Colour combination creates harmony
D		Colour	Colour intensities
Α	Rhythm	Line	The faster the rhythm, the shorter the line
D	Timbre	Colour	Same colour for same timbre
D	Dynamics	Colour	Colour intensities indicate the dynamic difference
Song 2: Joy	spring (Clifford I	Brown)	
Α	Melody	Line	Repetitive length indicates melody length and tempo
D		Line	Repetitive
		Shape	Repetitive
Α	Harmony	Line	The placement of lines and shapes creates harmony
		Shape	The placement of lines and shapes creates harmony
С		Colour	Colour combination creates harmony
D		Colour	Colour combination creates harmony
Α	Structure/form	Shape	Different shape indicates a different section
D		Shape	Different shape indicates a different section
D		Colour	Different colour indicates a different section
Α	Timbre	Shape	Different shape indicates different timbre
		Colour	Different types of colours indicate different timbre
В		Line	Different types of lines indicate different timbre
С		Colour	Different colours indicate different timbre
D		Line	Different types of lines indicate different timbre
		Shape	Different types of shapes indicate different timbre

# Peircean semiotic analysis and intersemiotic translation process

In this section, I incorporate semiotic analysis for analysing the visual artworks created by the participants in response to the two musical pieces, "River Flows in You" by Yiruma and "Joy Spring" by Clifford Brown. The results are provided in the previous sections, however, in this section, we will understand how those visual elements serve as signs—icons, indexes, and symbols—of the underlying musical elements and the emotional and cognitive responses.

Table 6 is the explanation of each sign that appeared in the artwork of the visual art students. Based on previous sections, the formal qualities of musical and visual elements are already mapped and categorized. The signs are analysed and classified into three types – Icon, Index, and Symbols. Icon is a type of sign that represents its object primarily through similarity or resemblance. In other words, there is a direct, perceptual connection

between the sign and what it represents. Meanwhile, an index is a sign that represents its object through a causal or factual connection. This connection is not based on resemblance but rather on a relationship of contiguity or cause and effect. A symbol is a sign that represents its object by a conventional or arbitrary relationship. There is no inherent connection between the sign and what it represents; the meaning is learned or agreed upon within a particular cultural or social context.

As seen in Table 6, the semiotic analysis of the students' artworks results in a diverse range of signs—icons, indexes, and symbols—that were produced from their visual interpretations of the musical pieces "River Flows in You" by Yiruma and "Joy Spring" by Clifford Brown. In the analysis of the student's visual representations of the musical pieces "River Flows in You" by Yiruma and "Joy Spring" by Clifford Brown, I observe a straightforward process of intersemiotic translation. Transduction, as defined by Kress (2000), involves the translation of meaning across different semiotic modes, such as from music (auditory mode) to visual art (visual mode). This process is not only a direct transfer. However, it involves a synaesthetic transformation where the cognitive processing of one mode is re-articulated into another. This way, new interpretations and meanings are made. In this transduction process, the choice of visual elements—such as colour, shape, and composition—becomes a key aspect of how the original musical experience is transformed. For instance, Participant C's use of pink and blue skies alongside orange-coloured land not only reflects the emotional narrative inspired by the music but also embodies the way meaning is transduced from the auditory to the visual mode. This reflects Kress's notion of transduction, where the synaesthetic activity of the brain translates the experience of one mode (hearing) into another (seeing) (Kress, 2000). This also supports the broader concept of transduction as intersemiotic translation, where meaning is not confined to a single mode but is dynamically constructed and reconstructed across different semiotic systems, as articulated by Newfield (2009).

Surely, the participants' perceptions might differ from the original meaning of the songs from the original composers, but this is where the transduction process happens. Students cannot only notice the musical elements but also create new meanings. The meaning-making process allows students to actively construct new interpretations, influenced by their unique perspectives, experiences, and emotional states.

As seen in Figure 7 above, this approach led to the students' integrated understanding that they can create artwork representing both musical elements and new meanings. This is also supported by the semiotic analysis in Table 6, which shows that the students' artworks incorporate multiple types of signs—icons, indexes, and symbols in one artwork.

# Vertical and horizontal discourses in art education through music-visual translation

The findings from this study align with the theoretical perspectives on vertical and horizontal discourses in art education discussed in the introduction. Vertical discourse refers to a structured approach to knowledge, where information is organised linearly and often in isolation, as is common in traditional academic settings (Bernstein, 2000). In this study, vertical discourse is evident in how participants applied their formal art training—

Table 6. Semiotic analysis of students' artwork.

	Blue for calmness and sadness, yellow for hope Circular forms and gradation symbolise the progression of enotions Text "yes! we can do it" in Bahasa Indonesia acts as symbol of self-	In the percentage of the percent affection, blue might represent calmness or melancholy, and the sunset could symbolise the end of a life or a relationship	The colour blue is for calmness and tranquillity
Symbol		Pink might symbolise love and affection, blue might represent calmness or melancholy, an sunset could symbolise the of a life or a relationship	The colour blue is tranquillity
Index	Visual elements like repetitive lines and shapes represent the melody		Different colour intensities for different music dynamics (soft and loud)
lcon	- Nine circular forms and gradation mimic nine steps of progress	Human figures symbolise the characters in the narrative imagined	
Interpretant	Melancholy transitioning to hope and light; song's dynamics A personal journey of overcoming obstacles and finding acceptance	A narrative of loss, farewell, and memory	Abstract shapes, varying A visual representation of colour intensities in the song's dynamics, blue focusing on calmness and tranquillity
Song (object) Part Representamen	River A Lines, blue rectangle, Flows small shapes, yellow in You rectangle B Circular forms, colour gradation, text	Human silhouettes, pink and blue sky, orange land	Abstract shapes, varying colour intensities in blue
) Part	S 20 B	U	۵
Song (object)	River Flow in Yc		

(continued)

Table 6. (continued)

Song (object)	Part	Song (object) Part Representamen	Interpretant	lcon	Index	Symbol
Joy A Spring	_	Wavy lines, red, black, and gold with different shapes	Energetic, lively atmosphere, representing a glamorous party		Spatial arrangement and shapes represent different sections of the song (A, A', B). Wavy lines representing melody and rhythm  Different colour and shapes representing the timbre of saxophone and trumper.	Red and gold colors symbolize glamour and high energy
	Δ	Abstract lines and red dot shapes, text	Abstract lines and red dot Melody and rhythm, social Red dots mimic red shapes, text and economic themes crystals that participant thinks symbolise the rich.Small lines mit confettis	πic	Abstract lines and red dots represent melody and rhythm	The Javanese phrase "peh kelarangen, ndak mampu" (too expensive, I cannot afford it) symbolises social and economic alienation. Combination of red and gold colors indicate the participant's perception of a hish-class party atmostshere
	U	Human figures dancing and playing instrument, double bass-like shapes, contrasting colors	The lively, nostalgic atmosphere of a jazz performance using contrast to represent distinct timbres	Figurative shapes resembling musical instruments (double bass-like figures) and human		The use of warm, contrasting colours symbolises a jazz performance's lively, nostalgic atmosphere. The use of 'crayons' to be the media also symbolises nostalgia, with a
	Δ	Circular shapes, reepetitive lines (zigzag, wavy), contrast colour	pontaneous, lively nature of jazz, visual representation of song's timbre	The sound of the cymbal is represented in the icon of the cymbal as well	Different line styles and shapes indicate the varied timbres of instruments	grany effect Abstract artwork symbolises spontaneous and lively jazz music Contrast colours like red, Green, and gold reflect the lively feeling

#### Free Painting Study with Music as Stimulus as Inquiry Graphic

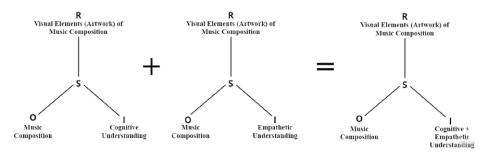


Figure 7. Integrated cognitive and empathetic understanding through Inquiry graphics in free painting with music as a stimulus.

such as understanding lines, shapes, and colours—to translate specific musical elements into visual forms. Art and design students study formally about visual elements. This approach reflects their structured knowledge of visual and musical elements, which they used as a foundation for their creative work.

On the other hand, horizontal discourse in this study's context is seen in how participants implemented personal and cultural narratives into their artworks. These go deeper than the formal qualities of the song. When considering the relationship between formal and horizontal discourses, it is not a matter of determining which is better to implement in art education. Instead, the focus should be on balancing both formal and horizontal discourses.

As stated above, how the students represent musical elements (melody, harmony, rhythm, timbre, dynamics, structure) in visual elements supports the vertical discourse approach in art education. Table 5 shows several ways to represent the musical elements based on the artworks. However, based on the interviews, it turned out that the messages are more than just formal qualities.

In song 1, "River Flows in You", Participant A emotionally responds to the music. The use of lines and colours was not only a technical exercise for depicting formal qualities of music, but Participant A was able to engage with the emotion in the song. There was a personal emotional narrative that created meaning-making. Participant B also shows an emotional journey highlighted through nine steps of colour gradation that symbolize the journey from depression to acceptance. The contextualized narrative in this artwork shows how horizontal discourse impacts art education. Participant C also reflect horizontal discourse by integrating imagined narrative into the artwork. As for the case of Participant D, Participant D reflects more on the vertical discourse by focusing on formal qualities. However, the emotional response made this Participant choose the technique used: watercolour. The watercolour technique gives a sense of drops, like rain and river.

In song 2 "Joy Spring", Participant A informed their subjective experience of the music's unpredictability. Thus, it illustrates how horizontal discourse allows a

personalised and context-dependent approach. Participant B deviated from vertical discourse. Instead of focusing on the formal qualities, they engaged in a more personal and socially grounded interpretation. Bernstein discussed how access to vertical discourse is often mediated by social class. Interestingly, Participant B's focus on social and economic aspects of the party and the sense of alienation from the high-class lifestyle illustrates a robust horizontal discourse approach. Moreover, the writing "peh kelarangen, ndak mampu" is in the Javanese language, and this participant chose this local language to complement the artwork. By integrating local language and socio-economic commentary into the artwork, the student (Participant B) moves beyond the structured representation of musical elements and engages in a more personalised and culturally grounded interpretation. Participant C depicted a figurative painting, two people-like figures with double basses with lines and geometric shapes. This participant also added crayons for textural quality. Hence, meaning-making is quite strong in this artwork.

The presence of both formal qualities and meaning-making experiences in the music indicates how vertical and horizontal discourses can be implemented simultaneously using Inquiry Graphics for a multimodal approach. The use of Inquiry Graphics also allows students to engage both their formal knowledge (vertical discourse) and their personal, contextual experiences (horizontal discourse) in creating and interpreting artwork. As seen in Figure 7, this approach facilitates an integrated cognitive and empathetic understanding, where students can represent both the musical elements and the new meanings they construct through their art. Instead of thinking about which one is right and wrong, or which one is better, art education should be more supportive of critical thinking, deep engagement, and process.

## Conclusion

As this study mainly focuses on exploring the relationship between music and visual art through artworks created by students, I noticed several important findings highlight this study:

- The finding reveals that students both employed direct (formal) and interpretative methods in translating music to visual forms. From the semiotic analysis, we can find several types of sign present in the artwork (icons, index, and symbols). Some students focus on translating directly the formal qualities of music like melody, harmony, rhythm, and timbre, while others can incorporate their personal and cultural narratives. The variations support how vertical and horizontal discourse approaches should be implemented in art education.
- The use of Inquiry Graphics can enhance students' technical skills and creative capacities. Balancing vertical and horizontal discourse is not impossible because this dual focus can support each other. The integration of semiotic analysis, particularly through the use of icons, indexes, and symbols, into educational practices like Inquiry Graphics, offers significant implications for educational futures. By engaging students in multimodal activities that require them to think critically about

- the relationships between different modes of representation, educators like teachers and lecturers in art can promote a more holistic and creative approach to learning.
- The approach outlined in this course is not limited to visual art students; it applies to various creative disciplines, including music, fashion design, product design, etc. Even for music students, engaging with visual art translation of their compositions can deepen their understanding of musical elements. Design students in fields like fashion or product design can also benefit from this interdisciplinary approach. Translating auditory experience can be used to sharpen the instincts of design students to translate auditory to visual and tactile design as well. These will broaden the art and design education.

In conclusion, this study has demonstrated that translating musical elements into visual art offers a powerful pedagogical tool for developing an integrated and dynamic approach to art and design education. By using multiple modes of communication, educators can also support students across various disciplines for a more inclusive and reflective creative practice.

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# **ORCID iDs**

# References

Aguiar D and Queiroz J (2013) Semiosis and intersemiotic translation. *Semiotica* 2013: 196. DOI: 10.1515/sem-2013-0060.

Al Fatah G (2017) Analisis Improvisasi Trumpet Pada Lagu "Joy Spring" Karya Clifford Brown (Thesis). Yogyakarta, Indonesia: UPT Perpustakaan ISI Yogyakarta.

Athanasopoulos G and Antović M (2018) Conceptual integration of sound and image: a model of perceptual modalities. *Musicae Scientiae* 22(1): 72–87. DOI: 10.1177/1029864917713244.

- Barton G and Riddle S (2021) Culturally responsive and meaningful music education: multi-modality, meaning-making, and communication in diverse learning contexts. *Research Studies in Music Education* 44(2): 345–362. DOI: 10.1177/1321103x211009323.
- Bateman J. A. (2018a) Peircean semiotics and multimodality: Towards a new synthesis. *Multimodal Communication* 7(1). Available at: https://doi.org/10.1515/mc-2017-0021.
- Bautista A, Tan LS, Ponnusamy LD, et al. (2015) Curriculum integration in arts education: connecting Multiple Art forms through the idea of 'space. *Journal of Curriculum Studies* 48(5): 610–629. DOI: 10.1080/00220272.2015.1089940.
- Bernstein BB (2000) Pedagogy, Symbolic Control, and Identity: Theory, Research, Critique. Lanham, MA: Rowman & Littlefield Publishers.
- Canning J (2007) Pedagogy as a discipline: emergence, sustainability and professionalisation. *Teaching in Higher Education* 12(3): 393–403. DOI: 10.1080/13562510701278757.
- Creswell JW (2015) A Concise Introduction to Mixed Methods Research. Thousand Oaks, CA: Sage.
- Crowley S. (2022) Making visible the invisible. *Art/Research International*. *A Transdisciplinary Journal* 7(1): 156–185. Available at: https://doi.org/10.18432/ari29618.
- Edgar IR (1999) The imagework method in health and social science research. *Qualitative Health Research* 9(2): 198–211. DOI: 10.1177/104973299129121785.
- Elderfield J and Munro T (1971) Form and style in the arts: an introduction to aesthetic morphology. *Leonardo* 4(4): 391. DOI: 10.2307/1572520.
- Elkoshi R (2019) When sounds, colors, and shapes meet: investigating Children's Audiovisual Art in response to classical music. *International Journal of Music Education* 37(4): 576–592. DOI: 10.1177/0255761419866084.
- Giannos K, Athanasopoulos G, and Cambouropoulos E (2021) Cross-modal associations between Harmonic Dissonance and visual roughness. *Music & Science* 4: 205920432110554. DOI: 10. 1177/20592043211055484.
- Greene TC, Bell PA, and Boyer WN (1983) Coloring the environment: hue, arousal, and boredom. *Bulletin of the Psychonomic Society* 21(4): 253–254. DOI: 10.3758/bf03334701.
- Hillshafer L (2019) *Stories of standards: "Joy spring" by Clifford Brown*. KUVO. https://www.kuvo.org/stories-of-standards-joy-spring-by-clifford-brown/
- Jakobson Roman. (1959) On Linguistic Aspects of Translation. Achilles Fang et al. On Translation. Cambridge, Mass: Harvard University Press, 232–239.
- Jamalus (1988) Panduan Pengajaran Buku Pengajaran Musik Melalui Pengalaman Musik. Yo-gyakarta, Indonesia: Kanisius.
- Kandinsky W and Bahr A (2021) Point and Line to Plane: Contribution to the Analysis of the Pictorial Elements. Zürich, Switzerland: Lars Müller Publishers.
- Kavanagh D (2004) Ocularcentrism and its others: a framework for metatheoretical analysis. *Organization Studies* 25(3): 445–464. DOI: 10.1177/0170840604040672.
- Kourdis E and Hartama-Heinonen R (2023) Translation studies and semiotics. Bloomsbury Semiotics Volume 4: Semiotic Movements. doi: 10.5040/9781350139435.ch-7.
- Kress G (2000) Multimodality: challenges to thinking about language. Tesol Quarterly 34(2): 337.
  DOI: 10.2307/3587959.

- Lackovic Natasa (2017) Book review: Collective knowledge arises from multimodal, dialogic intertextuality: Learning in the age of Digital Reason (2017) by Petar Jandric. *Knowledge Cultures* 5(5). Available at: https://doi.org/10.22381/kc5520178, Submitted for publication.
- Liu M (2022) Paintings of music. *The Journal of Aesthetics and Art Criticism* 80(2): 151–163. DOI: 10.1093/jaac/kpac003.
- Meadows ES (2011) Clifford Brown in Los angeles. *Black Music Research Journal* 31(1): 45. DOI: 10.5406/blacmusiresei.31.1.0045.
- Murti AA (2024) Tinjauan estetika pada permainan piano "River Flows in You" karya Yiruma. *Repertoar Jurnal* 4(2).
- Neas P (2024) Yiruma: pianist shows the World Gangnam is not the only Korean musical style. CLASSICAL POST. https://classicalpost.com/read/2022/1/3/yiruma-pianist-shows-the-world-gagnam-is-not-the-only-korean-musical-style
- Newfield DR (2009) Transmodal semiosis in classrooms: Case studies from South Africa (thesis). In: Transmodal Semiosis in Classrooms: Case Studies from South Africa. London, UK: University of London.
- Plass JL, Heidig S, Hayward EO, et al. (2014) Emotional design in multimedia learning: effects of shape and color on affect and learning. *Learning and Instruction* 29: 128–140. DOI: 10.1016/j. learninstruc.2013.02.006.
- Rainer O. (1925) Musikalische graphik: Studien und versuche uber die wechselbeziehungen zwischen ton- und Farbharmonien. Deutscher Verlag für Jugend und Volk.
- Richard B and Treichel CJ (2013) Increasing secondary teachers' capacity to integrate the Arts. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas* 86(6): 224–228. DOI: 10.1080/00098655.2013.826488.
- Ruscsanda MD (2020) Aspects of the relationship between music and painting and their influence on Schoenberg and Kandinsky. *Bulletin of The Transylvania University of Brasov, Series VIII Performing Arts*; 12: 91–100. DOI: 10.31926/but.pa.2019.12.61.21.
- Scardamalia M and Bereiter C (2006) Knowledge building: theory, pedagogy, and technology. *The Cambridge Handbook of the Learning Sciences*. New York: Cambridge University Press, 97–115. Silverman D (2024) *Interpreting Qualitative Data*. Thousand Oaks, CA: Sage.
- Smith-Shank DL (2007) Reflections on semiotics, visual culture, and pedagogy. *Semiotica* 2007: 164. DOI: 10.1515/sem.2007.027.
- Sookkaew J, Chongkon P, and Chaikaew N (2022) Technology of digital art for adapting ancient visual art designs. *International Journal of Emerging Technology and Advanced Engineering* 12(8): 125–135. DOI: 10.46338/ijetae0822 16.
- Spence C and Di Stefano N (2022) Coloured hearing, colour music, colour organs, and the search for perceptually meaningful correspondences between colour and sound. *I-Perception* 13(3): 20416695221092802. DOI: 10.1177/20416695221092802.
- Wibisono S (2023) Photography as cinematic ekphrasis: intermedial study in Garin Nugroho's opera Jawa. *Harmonia: Journal of Arts Research and Education* 23(1): 64–78. DOI: 10.15294/harmonia.v23i1.39633.
- Yildirim A. and Simsek H. (2005) Qualitative research: Methods in Social Sciences. SeckIn Publications.

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Acep Iwan Saidi is an expert in semiotics, visual culture, and cultural studies. He completed his Bachelor's degree in Indonesian Language and Literature at Universitas Padjadjaran, Bandung, followed by a Master's degree in Literary Studies at Universitas Indonesia. He earned his Doctorate in Fine Arts and Design from the Faculty of Art and Design (FSRD) at Institut Teknologi Bandung (ITB) and now a lecturer there. His research interests are diverse, with a focus on the semiotics of visual culture and ethnosemiotics.

Yan Yan Sunarya is a distinguished Indonesian textile artist and academic. Specializing in Batik, he explores both its traditional roots and modern interpretations. He is currently a lecturer at the Faculty of Art and Design at Institut Teknologi Bandung (ITB), where he teaches and conducts research in textile design and cultural studies. His work emphasizes the preservation and innovation of Indonesian textile heritage.

Riama Maslan Sihombing holds a Bachelor's, Master's, and Doctorate in Design from the Faculty of Art and Design (FSRD) at Institut Teknologi Bandung (ITB). Her areas of expertise include children's book illustration and typography. She is part of the Visual Communication and Multimedia study group at ITB and has been involved in numerous research, exhibitions, and community service projects. Notably, she led a project focused on developing creative concepts for children's book illustration and design.

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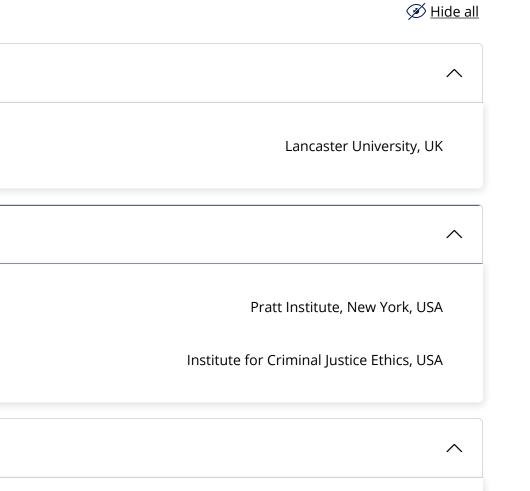
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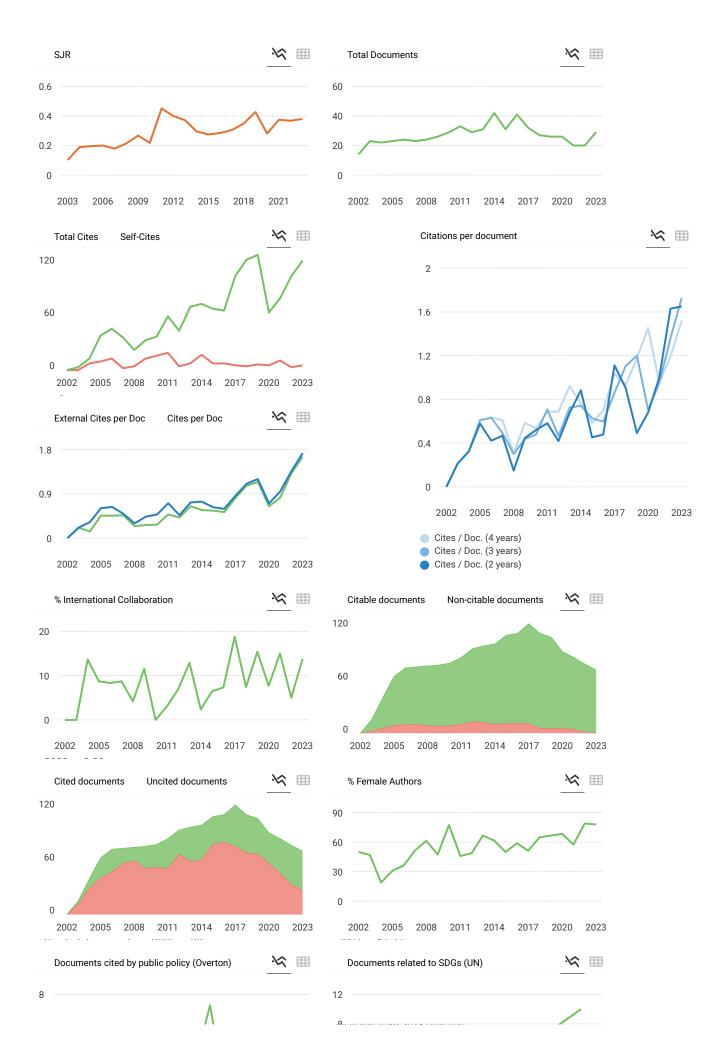
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