

DEPICTING LIFE THROUGH CONCEPTUAL METAPHOR: AN ART-LINGUISTIC ANALYSIS OF STUDENTS' WORKS IN AN AESTHETICS COURSE

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Article Info	Abstract
Article History Received: November 2025 Revised: January 2026 Accepted: April 2026 Published: July 2026	<i>Metaphor is recognized in cognitive linguistics as a mechanism through which individuals conceptualize abstract experiences in concrete terms. While extensive research has examined metaphor in verbal discourse, comparatively less attention has been given to how conceptual metaphors work in students' visual artworks, particularly within an aesthetics course, which is a mandatory university subject for all regular students. Investigating conceptual metaphors of 'life' in student artworks is valuable because it reveals how cognitive processes, disciplinary backgrounds, and multimodal resources interact in meaning-making practices. This study probes how students use visual metaphors in the aesthetics subject. Data collected from artworks, titles, essays, interviews, and discussions were analyzed; the analysis was conducted in two stages: CMT (Conceptual Metaphor Theory) was used to identify source–target mappings underlying students' metaphors (e.g., Life is a Ladder, Life is a Reflection); MDA (Multimodal Discourse Analysis) was applied to examine how visual elements such as composition, colour, material choice, and spatial arrangement reinforced and expanded metaphorical meanings. The findings reveal a clear disciplinary pattern: students from scientific backgrounds tend to construct structured, linear metaphors, whereas students from social sciences and humanities produce more layered, abstract, and narrative-driven metaphors. This indicates the multiple cognitive structures of metaphor as an art form and their societal settings. These findings contribute to art education by demonstrating how metaphor-based pedagogy fosters reflective thinking, interdisciplinary awareness, and multimodal literacy. Moreover, the study provides empirical evidence that meaning-making of 'life' in art classrooms emerges through the interaction of cognitive mapping and semiotic resources.</i>
Keywords Art education; Cognitive linguistics; Critical discourse studies; Conceptual metaphor; Multimodal analysis;	

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INTRODUCTION

Metaphor plays a central role in shaping how individuals conceptualize abstract experiences, construct meaning, and communicate complex emotions (Jamrozik et al., 2016; Thibodeau et al., 2019). Within the field of cognitive linguistics, metaphor is understood not merely as a rhetorical ornament but as a fundamental cognitive mechanism that structures

human thought (Kövecses & Benczes, 2002; Lakoff & Johnson, 1980). Through systematic source–target mappings, abstract domains such as life, identity, struggle, and growth are interpreted in terms of more concrete and embodied experiences (Schnall, 2013; Stanič, 2023). Lakoff & Johnson (1980) famously stated that “metaphor is pervasively in everyday life (p. 3). In cognitive sciences, metaphors are shown as a technique to concretize abstract ideas onto more concrete understanding (Gibbs, 2022); in education metaphor can be used as a creative and critical method to help the students relate new information to familiar concepts (Ortiz & Roj0, 2021); in psychology and psychotherapy, metaphor is used as a tool of therapy to assist individual express their complex emotion and experiences into more understandable way (Tay, 2022); and in the political discourse, metaphors are used to frame public’s opinion (Charteris-Black, 2021), metaphors are used to conceptualize phenomenal event like COVID-19 (Sirait, Seva & Lingga, 2020); and also to describe how people used important part of their body like heart (Sirait, 2021). This shows that metaphors are widely used without limitation to the literary context. Beyond linguistic expression, metaphor also operates visually and materially, particularly in artistic practices where images, colors, textures, and spatial compositions function as semiotic resources (Gualberto et al., 2020; Guerrieri et al., 2023).

In art education, students are frequently encouraged to represent personal and social experiences symbolically, often relying on metaphorical thinking to bridge internal cognition and external artistic expression (Riley, 2023; Shipe, 2018). Recent developments in multimodal theory (Jewitt, 2009; Kress & Leeuwen, 2006; Paltridge & Hyland, 2011) emphasize that meaning-making is constructed through the interaction of multiple modes, including visual, textual, and material elements. Therefore, examining conceptual metaphors in student artworks provides an interdisciplinary lens connecting cognitive linguistics, art education, and multimodal discourse studies. Understanding how students translate abstract life experiences into visual metaphors is essential for revealing how cognition, creativity, and disciplinary knowledge intersect within educational contexts.

Despite the growing recognition of metaphor as a cognitive and pedagogical tool, research has predominantly focused on verbal metaphors in discourse, media, politics, and psychotherapy (Charteris-Black, 2019; Tay, 2022). Although visual metaphor has been explored in art and design studies (Parsons, 2010; Velasco & Sans, 2023), little attention has been given to how students’ academic backgrounds influence their metaphorical representations (Li et al., 2025). Disciplinary training shapes epistemological orientations, cognitive habits, and problem-solving approaches (Baalen & Boon, 2024; Peffer & Renken, 2016). Research indicates that academic departments influence metaphorical perception (Yıldırım et al., 2023) and conceptualizations of domain-specific knowledge (Neuenhaus et al., 2013). However, it remains unclear how such disciplinary cognition manifests in multimodal artistic expression. This gap is important because contemporary education increasingly emphasizes interdisciplinary learning and creative thinking. Without understanding how metaphor operates visually across disciplinary backgrounds, educators lack a clear framework for integrating cognitive and artistic development. Therefore, this study aims to address the urgent need to understand why disciplinary differences shape metaphor construction and whether such differences can be pedagogically leveraged to enhance reflective and multimodal literacy in art education.

The novelty of this study lies in its integration of Conceptual Metaphor Theory (CMT) and Multimodal Discourse Analysis (MDA) to examine student-generated artworks within a classroom context. Moreover, earlier studies have not fully explored the combination of cognitive linguistic analysis of source–target mappings with systematic multimodal examination of visual and material elements. This study differs by investigating (1) how students conceptualize “life” as a target domain through diverse source domains (e.g., ladder, reflection, struggle, experiment), (2) how these mappings are realized through visual indicators

such as colour contrast, spatial arrangement, material choice, compositional symmetry, and symbolic objects, and (3) how disciplinary background (science, social sciences, mixed fields) influences metaphor selection and representation. What remains underexplored in existing literature is the intersection between disciplinary cognition and multimodal metaphor construction in art classrooms. By positioning student artworks as empirical data, this research fills the gap between cognitive linguistics and art pedagogy, offering evidence that metaphor operates not only linguistically but also visually and materially within educational environments.

Based on these considerations, the objectives of this study are twofold: first, to analyze how students conceptualize their life experiences through visual metaphors using Conceptual Metaphor Theory; and second, to examine how different academic backgrounds influence metaphor selection and multimodal realization using Multimodal Discourse Analysis. The primary variable examined is the conceptual metaphor of life, operationalized through identifiable source–target mappings (Lakoff & Johnson, 1980). The second variable is multimodal realization, indicated by visual components such as colour symbolism, compositional structure, spatial organization, material selection, and textual captions. The study focuses on 45 undergraduate students enrolled in an Aesthetic Course at Parahyangan Catholic University and is limited to artworks produced within one academic semester. The research does not aim to generalize findings to all educational contexts but rather to provide an in-depth qualitative analysis of how metaphor, cognition, and multimodality intersect within a specific classroom setting. By clarifying these objectives and scope, this study seeks to contribute theoretical insights to cognitive linguistics and practical implications for art education, particularly in fostering interdisciplinary thinking and metaphor-based pedagogical approaches. This research further aims to understand how the integration of multimodal metaphors can enrich teaching content, enhance student engagement, and foster critical and metaphorical thinking skills within an educational framework (Lei & Zhang, 2024).

Conceptual Metaphor Theory and Cognitive Semantics

Conceptual Metaphor Theory (CMT), as introduced by Lakoff and Johnson (1980), has fundamentally reshaped the understanding of metaphor, moving it from a purely linguistic device to a cognitive mechanism that structures human thought. This theory posits that metaphor is not merely a decorative element of language but a foundational process through which individuals conceptualize abstract ideas by mapping them onto concrete experiences. For instance, the metaphor "Time is money" reflects a cognitive framework where time is understood in terms of a valuable resource that can be spent, saved, or wasted. This mapping allows individuals to navigate complex temporal concepts through the lens of economic transactions, which are more tangible and familiar.

In the realm of visual art, CMT provides a framework for understanding how artists translate abstract emotions and ideas into tangible forms. A painter might use a stormy sea to represent emotional turmoil, or a broken mirror to symbolize fragmented identity. These visual metaphors are not arbitrary but are rooted in cognitive processes that link sensory experiences with abstract concepts. Fauconnier and Turner's (2002) theory of conceptual blending further elucidates this process, showing how artists combine elements from different domains to create new meanings. For instance, a sculpture that merges human and mechanical forms might evoke metaphors of dehumanization in a technological age, prompting viewers to reflect on the relationship between humanity and machinery.

Multimodal Discourse Analysis in Artworks

Multimodal Discourse Analysis, as developed by Kress and van Leeuwen, offers a powerful lens for examining how meaning is constructed through the interplay of multiple semiotic modes, including visual, textual, auditory, and spatial elements (Faigley et al., 2002).

This approach is particularly relevant in art education, where students often combine different modes to create layered and nuanced meanings (Kress, 2009; Lähdesmäki et al., 2021). For example, a student's artwork might include a painting accompanied by a written artist's statement, an audio recording, and a spatial installation, each contributing to the overall interpretation of the piece. A sculpture might be interpreted differently depending on whether it is viewed in isolation or accompanied by a textual description, highlighting the importance of context in multimodal meaning-making.

Research has shown that engaging with multimodal texts enhances students' cognitive and creative abilities. Bateman, Wildfeuer, and Hiippala found that students who analyse their artwork through a multimodal lens develop a deeper understanding of the symbolic and metaphorical dimensions of their work. By examining how colors, textures, and spatial arrangements interact with textual elements, students become more adept at constructing and deconstructing meaning. This process not only enhances their artistic skills but also fosters critical thinking and metacognitive awareness as students reflect on their creative decisions and their impact on viewers. Recent analyses confirm the growing interdisciplinary interest in conceptual metaphor. Han et al. and Xia et al. conducted bibliometric assessments of conceptual metaphor research, emphasizing the need for more interdisciplinary studies, including visual metaphor and multimodal metaphor (Han et al., 2022; Xia et al., 2023). Zhang et al. also note a growing interest in visual and multimodal metaphors in communication research (Zhang et al., 2024).

The Role of Art Linguistics in Meaning-Making

Art Linguistics, as an emerging interdisciplinary field, bridges the gap between linguistic analysis and visual art, offering new insights into how meaning is constructed and communicated in artistic contexts. This framework draws on systemic-functional linguistics, as developed by Halliday, to analyze the "grammar" of visual texts, including elements such as composition, color, and spatial arrangement. By applying linguistic methodologies to visual art, Art Linguistics provides a systematic way to interpret and articulate the meanings embedded in artistic works. One of the key contributions of Art Linguistics is its emphasis on the interplay between text and image in multimodal communication. For example, the title of an artwork often serves as a linguistic cue that guides the viewer's interpretation. A painting titled "The Silent Scream" might evoke metaphors of suppressed emotion, while a sculpture titled "Shattered Dreams" could suggest themes of loss and disillusionment. These linguistic elements interact with visual features such as color, form, and texture to create layered and nuanced meanings.

RESEARCH METHOD

Research Design and Data Analysis

This research employs a qualitative descriptive case study approach, well-suited for exploring how students conceptualize and express metaphorical thought in their creative works. Qualitative research allows for an in-depth examination of meaning-making processes in artistic production, facilitating an exploratory and interpretive analysis of multimodal metaphors (Deacon, 2000). Since metaphor functions as a cognitive bridge between abstract thought and tangible representation, this approach enables the researcher to investigate how students encode personal, cultural, and academic experiences into their artwork. This aligns with interpretive and constructivist paradigms, situating the study within theories of embodied cognition and multimodal semiotics.

Participants

The study involved 45 students enrolled in the Aesthetic Course at Parahyangan Catholic University during the Even Semester of 2023-2024. Participants were selected using purposive sampling, a technique that ensures the inclusion of individuals who are actively engaged in

artistic creation and critical reflection (Patton 2002). Since the research examines the relationship between disciplinary background and metaphorical representation, students were categorized into three distinct academic disciplines: Science and Engineering students (structured, analytical metaphor usage), Social Sciences and Humanities students (abstract, narrative-driven metaphors), and Mixed Academic Backgrounds (hybrid, experimental metaphor use). This stratified sampling ensures diversity in metaphorical representation, allowing the study to compare disciplinary influences on artistic cognition. The research employs multiple data collection methods, ensuring triangulation for reliability and validity (Yin, 2014). This approach enables comprehensive evaluation of creative outcomes and student experiences, ensuring a robust understanding of how various academic backgrounds influence artistic cognition (Ye & Sangiamvibool, 2025).

Instruments and Data Collection Techniques.

Data were collected through a combination of written statements, metaphorical drawings, and semi-structured interviews, allowing a comprehensive understanding of students' perceptions and expressions of learning operations and art education (Abdulaal et al., 2023; Asare et al., 2023). The primary tools for data collection included a series of drawing tasks where participants visually represented their understanding of given concepts, coupled with reflective questionnaires and interviews to elicit verbal explanations of their creative choices (Abdulaal et al., 2023). This multimodal approach provided rich, nuanced data, capturing both explicit and implicit conceptualizations of metaphors, which is crucial for understanding the complex interplay between visual and linguistic thought (Botsis & Bradbury, 2018). The one-semester course provided instruction on metaphor, visual art, and poetic expressions before the data collection.

Data Analysis

Collected data (artworks, titles, essays, questionnaires) were processed by categorizing by metaphorical themes, academic backgrounds, and visual and linguistic components, then matching elements for patterns, consistencies, and discrepancies. Analysis used a two-stage framework: Conceptual Metaphor Theory to map abstract experiences onto artistic forms and identify metaphor types (e.g., structured vs. fluid); and Multimodal Discourse Analysis to examine visual-linguistic interplay in meaning-making. The research procedure and analyses were conducted through these steps: Initially, individual student submissions underwent an in-depth review, focusing on identifying prominent conceptual metaphors and the artistic strategies employed for their visual articulation (Yan et al., 2024). The research procedure and analyses were conducted through these steps:

Table 1
Procedure and Analysis Steps

Steps	Action
One-Semester Teaching Process	The Aesthetic Course at Parahyangan Catholic University was conducted over one semester. Students received instruction on key concepts related to metaphor, visual art, and poetic expressions through different artistic forms, including paintings, sculptures, mixed media, and poetic captions.
Creating Artworks	Students were tasked with producing original artwork that visually represented a conceptual metaphor of life through personal, cultural, and academic experiences when constructing their artwork, including paintings, digital media, sculpture, installations, or mixed media.
Creating Metaphorical Titles	After completing their artwork, students assigned a title or caption to their piece. The title encapsulated the metaphorical meaning behind their artistic work(e.g., " <i>Life is a Journey</i> ," " <i>Life is a Reflection</i> ," " <i>Life is a Puzzle</i> ") to demonstrate their cognitive framing.
Writing A Reflective Essay	Students were required to write a reflection essay explaining why they chose a specific metaphor to represent their life experiences and how their artwork visually translated

Steps	Action
	the metaphor through colours, symbols, textures, and spatial composition, and the significance of their metaphor in their personal and academic journey.
Distributing a Questionnaire	A questionnaire was administered to gather additional qualitative data on students' academic backgrounds (scientific vs. social sciences), their understanding of metaphors before and after the course, their artistic and cognitive approach in selecting materials, colours, and composition, and their perception of the relationship between metaphor, language, and art. This helped in triangulating the data with the reflections and artworks
Data Processing	The artworks, titles, reflection essays, and questionnaire responses were collected and systematically categorized. The classified data is based on the dominant metaphorical themes (e.g., structured vs. abstract metaphors), the students' academic backgrounds (scientific vs. social sciences), and the visual and linguistic components used in metaphor construction.
Matching Artworks with Titles and Reflections	The artwork, its metaphorical title, and the written reflection were compared and analysed to identify patterns and consistencies. Researchers examined whether the visual elements aligned with the conceptual metaphor expressed in the title and written reflection. Any discrepancies or unique interpretations were noted for further discussion
Data Analysis Using Multimodal Discourse Analysis (MDA) and Conceptual Metaphor Theory (CMT)	The final stage involved an in-depth analysis using two theoretical frameworks: Conceptual Metaphor Theory (CMT), which examined how students mapped abstract life experiences onto tangible artistic representations and identified common metaphor types (e.g., <i>structured vs. fluid metaphors</i>).

RESEARCH FINDINGS AND DISCUSSION

Research Findings

The findings from this research provide an in-depth understanding of how students from different academic backgrounds conceptualize metaphors in their artistic expressions and how multimodal discourse enhances meaning-making in the students’ projects. Through the application of Conceptual Metaphor Theory (CMT) and Multimodal Discourse Analysis (MDA), this study reveals cognitive, artistic, and social dimensions of metaphor construction in visual arts education. The discussion contextualizes these findings within existing research in cognitive linguistics, art education, and sustainability studies, arguing that students' academic disciplines significantly shape their metaphorical and artistic choices, reinforcing the interdisciplinary nature of meaning-making in art. The summary of students’ conceptual metaphors of life is presented in the following table.

Table 2
Conceptual Metaphors Based on Students’ Work and Medium Use

Background	Number of Students	Common Metaphor Categories in Artworks	Artistic Characteristics	Predominant Art Medium
Science and Engineering	15	Life as a machine, Life as a Ladder, Life as a formula	Geometric shapes, symmetry, structured elements, and metallic and mechanical imagery	Digital media, technical drawing, metal sculpture, 3D modelling
Social Sciences and Humanities	20	Life as a puzzle, Life as a reflection /mirror, Life as a journey	Fragmented compositions, organic forms, fluid movements, and contrast between light and shadow	Acylic on canvas, watercolour, mixed-media collage, photography
Mixed Background	10	Life as a contrast, Life as anexperiment, Life as a combination of elements	Hybrid artistic styles combine structured and abstract elements, experimentation with materials, and mixed media.	Experimental installations, digital-analog hybrid, recycled materials, performance art.

From the table above, it can be seen that the primary metaphors that the students use are Life is a Ladder, Life is a Reflection, and Life is an Experiment. The students try to concretize their life experiences through some visual objects like a ladder, a reflection, an experiment, etc. Students in the Science and Engineering fields tend to conceptualize life in structured, mechanized, and formulaic ways. This aligns with their academic discipline, where systems, efficiency, and technical precision are emphasized. The use of metaphors such as “Life as a Machine” and “Life as a Formula” reflects a deterministic and logical view of existence, where progress follows a structured path, much like how machines operate or how mathematical formulas define outcomes. Their artistic characteristics include symmetry, geometric patterns, and metallic elements, which indicate a preference for order and predictability. The use of digital media, 3D modelling, and technical drawings further reinforces their inclination toward precision and innovation. The thematic alignment with Sustainable Development Goals (SDGs) related to technology, climate innovation, and responsible production suggests that their artwork reflects concerns about sustainable urbanization, resource management, and technological advancements in tackling global challenges.

The presence of "Life as a Journey" as a metaphor also implies an emphasis on personal growth, emotional depth, and transformation over time. Their hybrid artistic styles incorporate structured and abstract elements, indicating a balance between order and chaos. The preference for experimental installations, digital-analog hybrids, and recycled materials suggests an interdisciplinary and eco-conscious approach to art-making. The inclusion of performance art reflects a focus on experience and interaction rather than static representation. The themes reflected in their artwork—reduced inequalities, sustainable communities, and the intersection of technology and humanity—highlight a concern for social transformation and technological ethics. These students likely navigate both scientific and social perspectives, using their artwork to challenge existing paradigms and advocate for inclusive, sustainable futures.

Table 3
Mapping: ‘Life is A Stairs’

Source domain: stairs	Mapping	Target domain: life
Stairs’ steps	→	Life stages/milestones
Moving upward step by step	→	Progressing gradually in life
Climbing requires effort	→	Success in life requires hard work
Stairs’ top	→	Life’s ultimate goal (success, fulfilment, achievement)

In their theory of conceptual metaphor, Lakoff and Johnson (1980) argued that metaphor is not just a linguistic expression, but metaphor shapes humans’ way of thinking. Conceptualizing life as a stair gives a description of how life works in stages in reaching someone’s goal, which needs struggle and hard work. That resembles how people can go to the top by using a ladder. The reason behind choosing this metaphor cannot be separated from someone’s background and experience. The participant of the study chose the object of stairs in her faculty, which she used since she first attended the university. Furthermore, the selection of the object was inspired by Henri Cartier-Bresson’s black and white work, which reflected great meaning despite being only in black and white. This work applied a 5R size to make the stairs clearer and bigger. The stair was taken from below to metaphorize that humans would usually look up, not look down, another negative reflection of humans who tend to be ungrateful for what they had without looking down on what others didn’t have.

From the MDA perspective, the low-angle used in this image is crucial in reinforcing the metaphor of progress and ambition. By capturing the stairs from below, the artist emphasizes an upward direction, symbolizing aspirations, challenges, and continuous movement toward success. This aligns with the metaphorical mapping where the bottom of the staircase represents

the starting point of an individual's journey (e.g., entering college), while the act of climbing upward reflects gradual self-improvement, learning, and overcoming challenges, and the top of the staircase symbolizes achievement, fulfilment, or reaching one's life goals.

Table 4
Mapping: of the 'Life is A Reflection'

Source domain: mirror	Mapping	Target domain: life
Mirror reflection	→	Life reality
A clean mirror shows a clear reflection	→	Struggles distort self-perception
A broken mirror distorts reflections	→	A clear mindset leads to accurate self-awareness
Difficult to fix	→	Healing from past experiences takes time and effort

The reason for the selection of this metaphor, according to the participant, is inspired by a song entitled "You and I were made of glass, we'd never last." According to the participant, the song is interpreted as the fragility of humans instead of the power someone has. Furthermore, a mirror also traps people's reflections, like emotions or expressions. The human heart, which is as hard as glass, will still be broken into pieces if it is not placed or cared for properly. A broken mirror in this work means a fragile heart because of sadness, joy, and freedom. This broken reflection describes the freedom we get when we get out of something that makes us 'broken.

The most striking element in this composition is the broken mirror, which serves as a metaphor for self-perception and fractured identity and freedom from societal expectation. The title "*Freedom of Broken Reflection*" suggests that breaking the mirror signifies a release from self-imposed or external constraints (e.g., social norms, beauty standards, self-doubt). The mirror's round shape further enhances its symbolic function as a wholeness and truth. The act of breaking it disrupts this idea, emphasizing liberation from a rigid, singular perspective. The chosen material, real broken glass as the medium, adds a tangible, physical representation of fragility and rupture, while the reflective quality of the shards implies distorted and multiple reflections, reinforcing the metaphor that one's sense of self is complex, fragmented, and ever-changing.

The third sample of students' work is entitled *The Addiction of Ignorance*. This work talks about someone who constantly wants to ignore the problems she/he is facing, like being addicted to incuriosity. The participant chose to conceptualize her/his life as a struggle. This time, the concept of life is abstract, where life is the target domain and a struggle is the source domain. Even though struggle is something abstract, metaphorical mappings can be drawn from physical experiences (Lakoff and Johnson, 1980).

Table 5
Mapping: 'Life is A Struggle'

Source domain: struggle	Mapping	Target domain: life
Efforts in the struggle	→	Continuous life effort
Strength and endurance help in struggles	→	Resilience is needed in life
Overcoming a struggle leads to victory	→	Overcoming challenges leads to success

To understand life, the concepts range from physical struggle to the abstract concept of life, which is more complex and intangible. This mapping can help people to comprehend the abstract form of life in something people usually experience or feel physically. A similar concept was proposed by Benczes and Ságvári (2018), who conceptualized life as a battlefield/struggle, sharing in both Hungarian and English metaphors. In their study, the

Hungarians wrote about life as battles that have to be won or people have to fight throughout life, while the Americans wrote life as something precious, underestimated by others. The reason that the participant chose this concept to describe his/her life is because of his/her own experience of often hiding or escaping from problems, and some other people did it. In everyday life, people cannot be separated from problems. However, many people choose to ignore the problem that the writer stated as "Ignorance is Bliss". This situation can happen because of fear or inability to face reality mentally and emotionally. Hiding from the problem cannot solve the problem. This recurring pattern makes humans dependent, addicted, and addicted to their lack of curiosity.

Conceptual Metaphors and Academic Backgrounds in Artworks

Table 6

Students' Conceptual Metaphor of Life in Artworks

Category	Science Students	Social Science Humanities Students	Mixed Background Students
Approach to Metaphor of Life	Tend to view life as structured, systematic, and goal-oriented. Metaphors often reflect linear progress, order, and mechanical precision.	Tend to view life as fluid, dynamic, and abstract. Metaphors often reflect complexity, subjectivity, and emotional depth.	Tend to merge structured and abstract perspectives, viewing life as both experimental and adaptable. Metaphors often reflect a balance between predictability and uncertainty.
Common Metaphorical Themes	Life as a Machine, Life as a Ladder, Life as a Formula, Life as a Circuit	Life as a Puzzle, Life as a Reflection, Life as a Journey, Life as a Wave.	Life as a Contrast, Life as an Experiment, Life as a Combination of Elements.
Artistic Representation	Use of geometric shapes, symmetry, and structured elements; use of metallic or mechanical imagery to symbolize order and logic	Use of fragmented compositions, organic forms, and fluid movements; emphasis on contrast, layering, and interplay between light and shadow.	Hybrid artistic styles combine structured and abstract elements, experimentation with materials and mixed media, blending technology with traditional techniques.
Connection to Research Methodology	Conceptual Metaphor Theory (CMT) is used to analyze how structured, predictable metaphors align with logical and scientific cognition. Semi-structured interviews reveal their preference for precision in representation.	Multimodal Discourse Analysis (MDA) is applied to explore abstract and layered meanings in visual metaphors. The thematic analysis identifies how subjective experiences shape metaphor selection.	A combination of CMT and MDA is applied to analyze how hybrid metaphorical thinking emerges. The thematic analysis identifies how students integrate multiple perspectives into a single artistic vision.

The findings reveal a distinct correlation between academic discipline and metaphorical perception. Students from science and engineering backgrounds predominantly conceptualized life through structured, mechanistic, and goal-oriented metaphors, such as "Life as a Machine," "Life as a Formula," or "Life as a Ladder." These students exhibited linear thinking patterns, where life was understood in terms of sequences, efficiency, and systematized logic. This aligns with the Conceptual Metaphor Theory (Lakoff & Johnson, 1980), which posits that individuals frame abstract experiences through familiar and cognitively structured domains. The precision in their metaphor selection is indicative of their epistemological orientation toward logic and

predictability. A thematic analysis of their artworks further confirms that students with scientific training prefer symmetrical, geometric, and systematically structured compositions, reinforcing their cognitive inclination toward order and functional design. Conversely, students from social sciences and humanities conceptualized life through fluid, narrative, and abstract metaphors, such as "Life as a Journey," "Life as a Puzzle," or "Life as a Reflection." Their approach to metaphor was more subjective and relational, emphasizing transformation, complexity, and emotional depth. Their artworks featured fragmented compositions, expressive brushstrokes, and fluid forms, highlighting ambiguity and evolving narratives in meaning-making.

Discussion

The findings of this study show that students' visual representations of "life" are not merely personal artistic choices, but cognitive and multimodal constructions shaped by academic background, lived experience, and available semiotic resources. The study involved 45 undergraduate students in an Aesthetics Course and analyzed artworks, titles, essays, questionnaires, and interviews through Conceptual Metaphor Theory (CMT) and Multimodal Discourse Analysis (MDA). The manuscript explains that the study used 45 students and focused on how metaphor, cognition, and multimodality intersect in one classroom context. This design is appropriate because metaphor functions as a cognitive bridge between abstract thought and concrete representation, while MDA explains how image, colour, material, space, and text interact in meaning-making. This finding confirms Lakoff and Johnson's (1980) view that metaphor structures human thought rather than functioning only as decorative language. It also supports multimodal scholars who argue that meaning is distributed across modes, not located in words alone (Kress & van Leeuwen, 2006; Jewitt, 2009).

A central finding is that students' disciplinary backgrounds influenced the source domains used to conceptualize life. Science and engineering students tended to construct structured, systematic, and goal-oriented metaphors, such as "Life as a Machine," "Life as a Ladder," and "Life as a Formula." These metaphors were reinforced through geometric shapes, symmetry, metallic elements, technical drawings, digital media, 3D modelling, and other visual features associated with precision and order. This confirms earlier claims that disciplinary training shapes epistemological habits, problem-solving approaches, and representational preferences (Peffer & Renken, 2016; Baalen & Boon, 2024). In this group, life was commonly understood as a sequence of stages, a system of causes and effects, or a process of measurable progress. Such findings support CMT because students mapped the unfamiliar and abstract domain of life onto familiar domains from their academic experience: formulas, machines, structures, and upward movement.

The metaphor "Life is a Ladder" provides a clear example of this structured orientation. In the analyzed work, stair steps were mapped onto life stages, upward movement onto gradual progress, effort in climbing onto hard work, and the top of the stairs onto achievement or fulfilment. The manuscript presents this mapping explicitly by connecting stairs' steps with life stages, upward movement with progress, and climbing effort with hard work. This confirms Serban's (2016) discussion of the ladder metaphor, especially in relation to career and progress. However, the present study extends that interpretation by showing how the ladder metaphor emerges from an embodied and situated academic experience. The participant selected stairs from the university environment, indicating that metaphorical meaning was rooted in daily experience rather than only in a conventional cultural schema. From an MDA perspective, the low-angle black-and-white photograph strengthened the metaphor by visually emphasizing aspiration, struggle, continuity, and upward movement. Thus, the image did not simply illustrate a verbal metaphor; it expanded the metaphor through angle, repetition, contrast, and spatial perspective.

By contrast, students from social sciences and humanities conceptualized life through more fluid, relational, and interpretive metaphors, including “Life as a Puzzle,” “Life as a Journey,” “Life as a Wave,” and “Life as a Reflection.” Their artworks used fragmented compositions, organic forms, light-shadow contrast, collage, photography, watercolour, and mixed media. This finding aligns with studies in art education and multimodal discourse which suggest that visual meaning-making is layered, contextual, and shaped by the interaction of multiple semiotic modes (Kress & van Leeuwen, 2006; Gualberto et al., 2020; Riley, 2023). Compared with the linear metaphors of the science group, these metaphors foregrounded ambiguity, emotional depth, self-awareness, social relations, and transformation. This does not mean that humanities students lacked structure; rather, their structure was narrative and reflective rather than mechanical. Their metaphors positioned life as a process of becoming, remembering, negotiating, and reconstructing meaning.

The broken mirror artwork, conceptualized as “Life is a Reflection,” strongly illustrates this interpretive tendency. The mirror mapped reflection onto life reality, broken glass onto distorted self-perception, and the difficulty of repair onto healing from past experiences. The manuscript explains that the participant used the mirror to represent human life as externally strong yet internally fragile. This confirms Smith’s (2017) claim that mirrors may represent truth, self-recognition, moral awareness, and distortion. Yet the student’s artwork extends prior mirror metaphors by using actual broken glass, a round reflective object, natural background, and the title “Freedom of Broken Reflection” to express both fragility and liberation. The broken mirror was not only a sign of damage but also a sign of release from social expectations, self-doubt, and rigid self-image. The use of real broken glass intensified the metaphor because viewers could physically imagine rupture, danger, and vulnerability. This supports the MDA argument that material choice is not secondary; it actively shapes the emotional and conceptual force of the artwork.

Another important finding is that metaphorical representation can function as social critique. In “The Addiction of Ignorance,” the participant conceptualized life as struggle and ignorance as confinement. The box represented limitation, the blindfolded figure symbolized denial or forced ignorance, the red eyes suggested surveillance and social pressure, and the wires implied external control. This confirms Benczes and Ságvári’s (2018) finding that life is often conceptualized as struggle or battlefield across cultural contexts. However, this study extends that framework by showing that struggle is not only a matter of endurance or conflict, but also of awareness, social control, and psychological avoidance. The artwork suggests that ignorance may become a comfort zone, even though it restricts growth and prevents people from confronting reality. In this case, visual metaphor becomes critical and reflective, allowing the student to represent personal experience while also commenting on wider social pressures.

Students from mixed academic backgrounds produced hybrid metaphors such as “Life as an Experiment,” “Life as a Contrast,” and “Life as a Combination of Elements.” Their works combined structured and abstract elements, digital and analog techniques, recycled materials, installations, and performance art. This finding extends previous research on interdisciplinary learning by showing that students who draw from multiple epistemological traditions may develop more flexible metaphorical reasoning. Their artworks did not simply combine scientific and humanistic symbols; they created blended visual systems in which order and uncertainty, technology and emotion, and experimentation and reflection coexisted. This supports Fauconnier and Turner’s (2002) theory of conceptual blending, which explains how new meaning emerges when elements from different domains are integrated into a new conceptual space.

The study confirms the cognitive linguistic view that metaphor helps people understand abstract experience through concrete domains, supports multimodal theory by showing that metaphorical meaning is distributed across image, text, material, composition, and space, and

extends previous research by demonstrating that academic discipline influences metaphor selection and visual realization. The manuscript's findings show that science students preferred structured and deterministic metaphors, social science and humanities students embraced fluid and evolving metaphors, and mixed-background students integrated both structured and abstract representations. Pedagogically, the findings suggest that metaphor-based art tasks can foster reflective thinking, interdisciplinary awareness, and multimodal literacy. However, because the study is qualitative, classroom-based, and limited to one institutional context, its findings should be interpreted as analytical and exploratory rather than universally generalizable.

CONCLUSION

This study concludes that conceptual metaphor provides a powerful analytical lens for understanding how university students translate abstract experiences of life into concrete, visual, and material forms. The students did not represent life randomly; rather, they selected source domains that reflected their disciplinary habits, personal experiences, and ways of interpreting reality. Science and engineering students tended to conceptualize life through structured metaphors such as machine, ladder, formula, and circuit, indicating a preference for order, sequence, precision, and goal orientation. Social sciences and humanities students represented life through more fluid and reflective metaphors such as puzzle, journey, wave, and mirror, showing stronger attention to subjectivity, identity, emotion, and transformation. Meanwhile, students from mixed academic backgrounds produced hybrid metaphors that combined structure and abstraction, suggesting that interdisciplinary exposure can encourage more adaptive and experimental forms of metaphorical reasoning. These findings affirm that metaphor is not only a linguistic device but also a cognitive and artistic mechanism through which students make sense of life experiences.

The study also concludes that the integration of Conceptual Metaphor Theory and Multimodal Discourse Analysis offers a useful framework for art education because it enables researchers and educators to examine both the cognitive structure and the semiotic realization of students' artworks. CMT helps identify source–target mappings, while MDA explains how visual elements such as composition, colour, material, spatial arrangement, and textual titles reinforce and expand metaphorical meanings. The findings suggest that metaphor-based pedagogy can strengthen reflective thinking, multimodal literacy, and interdisciplinary awareness by encouraging students to connect personal experience, academic knowledge, and symbolic expression. At the same time, this study is context-specific, involving 45 students from one aesthetics course in one university setting; therefore, future research should involve broader samples, different institutional contexts, and comparative cultural settings. Further studies may also examine how metaphor-based art learning affects students' creativity, critical thinking, and capacity to communicate complex social and personal experiences through multimodal forms.

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INFORMED CONSENT STATEMENT

All the writers take part in the accomplishment of this research.

DECLARATION OF THE USE OF AI

Researchers confirm that artificial intelligence tools were utilized in the preparation of this manuscript. Their application was limited to [specify how AI was used, e.g., generating preliminary drafts, refining language and grammar, brainstorming ideas, summarizing research papers]. All content generated by AI has been thoroughly reviewed, edited, and approved by the author, who takes full responsibility for the accuracy and originality of the final submission.

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