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Spatial Intelligence in The Expressive Art of Modernism and Its Manifestations in The Works of Art Education Students

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Abstract: The study seeks to examine the manifestations of spatial intelligence in the artworks of fourth-year students working within the Expressionist School. A descriptive-analytical approach was adopted, focusing on artworks created by fourth-year students in the Department of Art Education during the 2018–2019 academic year. To assess spatial/visual intelligence, the researcher developed a specialized analytical instrument grounded in the artistic principles of Expressionism. The collected data were subjected to statistical analysis to interpret the results and derive a series of conclusions, recommendations, and. suggestions.

Keywords: Spatial Intelligence, Modern Art, Expressionism, Representations.

Chapter One

Introduction

Research Problem

Art in general—and modern art in particular—serves as a vital medium that bridges the past and the future, representing a genuine turning point that gave rise to a constellation of distinguished and diverse artistic schools and movements that have shaped innovation and creativity worldwide.

Expressionism, in this context, stands out as an art form rooted in spontaneity and emotional intensity rather than rationality. It reflects the inner depths of the artist's psyche and embodies a rejection of traditional artistic rules. Expressionist artists devoted their attention to achieving **individual and emotional liberation**, breaking free from all constraints and conventions, and emphasizing **vivid, warm, and powerful colors** that convey profound inner feelings.

Recently, **Howard Gardner's Theory of Multiple Intelligences** has emerged as one of the prominent educational theories explaining intelligence as a **complex structure** composed of numerous distinct and independent abilities. Among these is **spatial/visual intelligence**, which is responsible for storing visual images and the ability to recall them.

Individuals who possess a high degree of this form of intelligence tend to respond more effectively to **visually presented information and lessons**, such as those in geometry and the arts. Indeed, teaching art becomes particularly challenging without engaging **spatial/visual intelligence skills**, which involve the interaction between **intuitive** and **rational knowledge**.

This interplay becomes evident when a person attempts to interpret a painting or artwork: the **intuitive dimension** is reflected in deciphering the symbolic and emotional content of the piece, while the **rational dimension** identifies its formal components and the relationships among them. There is no conflict between these two forms of knowledge; rather, they **complement and merge** within the process of forming **spatial intelligence**.

Therefore, the researcher believes that **spatial intelligence** lies at the very core of **the fine arts in general** and of **art education in particular**, as it emphasizes **mental imagery, color perception, and their practical application**. These aspects are systematically taught to students using **modern techniques and tools** that enable them to express their ideas through artistic works, fulfilling curricular requirements essential for **academic success and graduation**.

Accordingly, the **problem of the present research** arises from the need to identify the **artistic and cognitive capacities** possessed by fourth-year students in the **Department of Art Education**, specifically in how they **manifest spatial intelligence** within their creative works. The study seeks to **analyze these artworks scientifically and objectively**, in accordance with the **principles of the Expressionist art movement**.

Study Significance

Research Objective

The present study aims to: Explore the manifestations of spatial intelligence in the artworks of fourth-year students within the Expressionist School.

Research Limits

The scope of the present study is defined as follows:

1. **Conceptual Limit:** Spatial intelligence within the context of **Expressionist art**.
2. **Practical Limit:** The **artistic works** produced by **fourth-year students** during the **2018–2019 academic year** in the **Department of Art Education, College of Fine Arts, University of Baghdad**.

Research Terminology

1. **Spatial Intelligence**

Defined by:

- **Gardner (2003):** "The ability to coordinate spatial images and perceive three-dimensional forms, in addition to artistic creativity rooted in vivid imagination. This type of intelligence requires a sensitivity to color, line, shape, nature, space, and the interrelationships among these elements." (Gardner, 2003)
- **Ibrahim (2011):** "Visual intelligence, which is synonymous with spatial-visual or visual-spatial intelligence, refers to the intelligence of imagery — the ability to accurately perceive the visual world and to understand the relative positions of objects in space, forming and manipulating mental images to solve problems." (Ibrahim, 2011, p. 65)
- **Procedural Definition (by the Researcher):** In the context of this study and its sample, spatial intelligence is defined as: "The creation of an artistic work, such as a graduation project, in which the student demonstrates innovative thinking by departing from convention and expressing creativity through diverse and continually evolving methods.

2. The Arts of Modernity

Defined by:

- **Al-Masadi (1982):** "It is a conscious vision aimed at establishing continuously renewing relationships between the human condition and inherited essence, in order to sustain the creative interaction of humans with their language, which they shape through their own contributions as substitutes for obsolete elements. Language, in turn, shapes humans through its dominance via essential constants." (Al-Masadi, 1983, p. 8)
- **Shukri (1991):** "The concept of modernity among our contemporary poets is a civilizational notion, representing a new conception of the universe, humanity, and society. This modern perspective emerges from the revolution of the modern world across all social, technological, and intellectual levels." (Shukri, 1991, p. 15)
- **Procedural Definition (by the Researcher):** In the context of this study and its sample, the arts of modernity are defined as: "Art that embraces rules and artistic principles while breaking away from mundane and conventional reality—whether in ideas, methods of expressing essence, techniques, materials, or colors. In the works of fourth-year students, this form of art allows each student to express inner experiences according to the characteristics of Expressionist art, creatively and innovatively, leaving a unique personal imprint."

3. Assimilations

Defined by:

- **Madkour (1983):** "Assimilation refers to the manifestation of mental images in their various forms within the conscious mind, or the replacement of some images by others." (Madkour, 1983, p. 55)
- **Duralim (1998):** "A broad layer of mental forms (science, religion, myths…) as well as ideas and knowledge without distinction; the term is shared across several social sciences (psychology, sociology, anthropology)." (Serge, 1998, p. 367)
- **Procedural Definition (by the Researcher):** In the context of this study and its sample, assimilation is defined as: "The method or approach through which a fourth-year student demonstrates the ability to implement their mental images, ideas, feelings, and emotions in the most **innovative and creative ways**, producing **new and aesthetically pleasing forms**."

Chapter Two

Theoretical Framework and Previous Studies

Section One: Theoretical Framework

1. Spatial/Visual Intelligence: Indicators and Strategies

Spatial/visual intelligence represents the **ability to imagine, perceive the world accurately, recognize**

directions and locations, highlight details, and form mental images. It also encompasses the capacity to **visualize the relative positions of objects in space**, a skill particularly evident in individuals with **artistic abilities** such as painters, interior designers, architects, and navigators. These individuals excel in creating **models, plans, color coordination, interior design, and spatial arrangements**, using visual cognition instead of words or textual descriptions to express maps and spatial relationships. (Ubaid, 2004, p. 281)

Indicators of Spatial/Visual Intelligence

These indicators manifest throughout various stages of an individual's life as follows:

1. Thinks primarily through **images and imagination**.
2. Pay attention to **objects, shapes, and colors** in their environment.
3. Engages in **drawing, coloring, and designing models** using clay, paper, and fabrics.
4. Shows a tendency toward **imagination, visualization, and forming mental images** in different situations.
5. Demonstrate reasoning in **color mixing, fabric selection, or decoration and organization** to achieve harmonious forms.
6. **Translate maps, diagrams, and visual/graphical representations** effectively. (Al-Sultani, 2004, p. 171)

Strategies for Spatial/Visual Intelligence

Given educators' interest in **spatial/visual intelligence** and its strategies—which trace back to **prehistoric cave drawings**, serving as evidence of early humans' ability to learn shapes and visual forms—it is evident that contemporary schools emphasize students' responses to **images**, whether **mental images, photographs, slides, or films**, as well as their ability to **comprehend three-dimensional forms**.

The following are a set of strategies designed to **develop students' spatial/visual intelligence**:

1. The Visual Imagination Strategy: This strategy involves a practical exercise in which students are encouraged to create a personalized internal "mental board" in their minds, upon which they visualize and display the content of the subject they are studying—such as spelling words, mathematical formulas, historical facts, or other types of information (Nawfal, 2011, pp. 257–261). This approach stimulates the development of students' visual imagination to a significant degree, fostering their ability to generate new, innovative, and diverse ideas that vary from one student to another.

2. The Color-Cueing Strategy: A heightened sensitivity to colors is often one of the defining characteristics of students with high spatial intelligence. Therefore, when a teacher encourages the use of colors to highlight elements of the learning material—such as grammatical rules, scientific formulas, or mathematical equations—during the teaching-learning process, this serves as a clear application of the color-cueing strategy. It trains students to employ color as a supportive element that aids comprehension and application in various real-life contexts (Nawfal, 2011, pp. 257–261).

Hence, the frequent use of colors in posters and visual displays—especially for children and students—serves to stimulate memory, capture attention, and associate information with color. This, in turn, helps learners grasp the content more effectively and recall information with greater ease, which is precisely the outcome intended by the teacher.

3. The Pictorial Metaphor Strategy: Teaching using metaphors is not a new concept within educational programs offered to students. Skilled and experienced teachers have long trained their students to practice and apply the procedures associated with this strategy.

These teachers typically begin by presenting a series of examples that resemble familiar objects or concepts known to the students, while simultaneously generating contrasting examples related to the lesson topic. They then listen attentively to students' responses and assist them in articulating these ideas clearly and coherently (Nawfal, 2011, pp. 257–261). Hence, both the artist and the student resort to metaphor and imagery as means of expressing and embodying the essence of their ideas—employing symbols, contrasts, and divergent meanings in ways that are both innovative and creative.

4. The Idea-Drawing Strategy: This strategy involves asking students to draw the key point or central concept that comes to mind while engaging with a lesson. Accuracy or realism in their drawings is not emphasized; rather, the aim is to assess their understanding of a particular idea and reinforce comprehension of a specific concept. It also provides students with multiple opportunities to test their ideas through deeper levels of thinking. After completing the "idea-drawing" activity, a discussion is held to examine the relationship between the subject matter and the students' drawings. This discussion is highly significant, as it helps students develop awareness of various modes of visual thinking. It is important that the teacher does not evaluate the drawings while they are being produced; rather, the teacher should encourage students to explain their ideas and describe how they have practically translated those ideas into their artistic work (Nawfal, 2011, pp. 257–261).

Second: The Expressionist School and Its Main Characteristics

In reality, Expressionism is more than merely an artistic style. It came to be known as *German Expressionism* due to its expansive and profound outlook on life, representing a new and deeply introspective vision of the world. It reflects the projection of the human self onto nature, events, and even humanity itself. Unlike other artistic movements that are generally regarded as stylistic phases or distinct modes of artistic expression within the broader evolution of art, Expressionism embodies a comprehensive philosophical and emotional perspective.

As an artistic movement with a distinct meaning and vision, its conceptual framework did not fully emerge until the twentieth century, following the groundwork laid by several nineteenth-century artists whose works displayed certain Expressionist features—among them Vincent van Gogh, Paul Cézanne, and Paul Gauguin (Amahz, 2009, p. 79).

As illustrated in Figure (1), the painting by Paul Cézanne exemplifies this early influence.

The Expressionists were driven by powerful instinctive impulses, particularly in their exploration of psychological struggles, inner secrets, and their interpretation of nature and life as phenomena governed by an often erratic yet mature force. They came to realize that the creation of art required an intense, spontaneous, and even turbulent environment—one capable of releasing the artist's emotions, since art, in their view, was fundamentally an expression of inner sentiment rather than a mere replication of the external, orderly world. Many Expressionist artists thus neglected technical precision; some worked hastily, seeking to expose and reveal their innermost feelings. Others, however, remained faithful to traditional artistic principles, maintaining a balance in the distribution of light and shadow and preserving familiar spatial composition (Müller, 1988, p. 101).

Each artist possessed a unique vision of expression; however, they all shared a common trait—their deep passion for expressive art and their desire to convey an idea to the viewer by focusing on the inner essence of the work rather than its external form. Among them was Vincent van Gogh, who employed colors of absolute value and adopted a distinctly expressive style that became a defining feature of his artistic technique (Atiyyah, 1978, p. 22), as illustrated in Figure (2).

Main Characteristics of the Expressionist School

The defining features of the Expressionist movement, as outlined by its artists, are as follows:

1. **Emphasis on Subjectivity and Emotional Freedom:** Expressionism depicted the self and the psychological state with complete freedom of expression, rejecting all boundaries and constraints. It viewed art as a spontaneous, emotional act born from an intense, affective moment.

Figure (2): Vincent van Gogh's painting "Café Terrace at Night"

2. **Focus on Inner Meaning Rather than External Form:** Expressionist art addressed human problems and existential issues by emphasizing the inner significance of objects rather than their outward appearance. Forms were imbued with symbolic and dramatic content, detached from rational or intellectual control, reflecting a deliberate absence of reason in favor of emotional depth.
3. **Expressive Use of Color and Line:** Expressionist colors were bold, intense, and often dominated by somber tones such as black and gray. Lines were distinctly expressive, characterized by a fluctuating quality that alternated between intensity, softness, and fragility (Amahz, 2009, pp. 205–210).

Section Two: Previous Studies Among the studies that addressed spatial intelligence is the study conducted by **Abu Salem (2017)**, titled *"The Effect of a Proposed Program in Teaching Geography on Developing the Skill of Spatial Map Reading among Eighth-Grade Students."* The study aimed to explore aspects of spatial intelligence and its development alongside the enhancement of map-reading skills. The program was designed based on Gardner's theory of multiple intelligence, specifically spatial intelligence, and was implemented using an experimental methodology involving two groups—an experimental group and a control group. The results revealed statistically significant differences at the **0.01 level** between the mean scores of the experimental and control groups in the post-test measuring spatial intelligence and map-reading skills, in favor of the experimental group.

The study conducted by Abu Sha'irah (2018), titled *"The Effectiveness of a Proposed Program Based on Visual Intelligence in Developing Artistic Design Skills among Female Students of the Art Education Department at the Faculty of Fine Arts, Al-Aqsa University (2018),"* aimed to explore spatial intelligence and how artistic design skills can be enhanced through the development of program components grounded in Gardner's Theory of Multiple Intelligences. The research adopted a descriptive-analytical approach to analyze the items of the spatial intelligence program in relation to the development of artistic design skills, alongside an experimental design involving an experimental group and a control group. The findings revealed statistically significant differences at the (0.05) level in favor of the experimental group on the product evaluation rubric for artistic design skills.

Chapter Three

Research Methodology

The research methodology and procedures are designed to achieve the study's objective through the identification of the research population and sample, which focuses on uncovering manifestations of spatial intelligence in the artistic outputs of fourth-year students at the Expressionist School during the academic year 2018–2019 in the Department of Art Education, College of Fine Arts, University of Baghdad. The researcher adopted the descriptive-analytical

method, as it is the most appropriate approach for addressing the research procedures and achieving its aim.

Research Population

The research population consists of the artistic outputs of fourth-year students in the Department of Art Education, College of Fine Arts, University of Baghdad, for the academic year 2018–2019, specifically in the Graduation Project course. The total number of students is **102**, distributed across **six class sections**, as shown in Table (1).

Table (1): Research Population

Section	A	B	C	D	E	F	Total
Number of Students	17	22	16	17	17	13	102

Research Sample

The researcher selected the sample in accordance with the research objective, excluding students' works that belonged to other artistic schools. The sample was chosen randomly and consisted of **three artistic productions** representing Expressionist art, created by fourth-year students in the Graduation Project course, Department of Art Education, College of Fine Arts, University of Baghdad, for the academic year **2018–2019**.

Research Tools

Questionnaire

The researcher conducted a preliminary exploratory (open-ended) study which was presented to a panel of experts. Based on their feedback, a questionnaire was developed to assess the validity of the initial items used for content analysis, with the aim of analyzing the samples produced by fourth-year students.

Steps for Developing the Research Instrument

Analysis Tool

Given the research objective, an analytical tool was required to identify the manifestations of spatial intelligence within Expressionist artworks. Therefore, the researcher developed an analysis instrument through which these manifestations could be detected, as explained in the following steps:

Formulation of the Items

In formulating the analysis items, the researcher relied on a combination of sources, including the literature reviewed, previous studies, indicators derived from the theoretical framework, observations of the fourth-year students' artworks (the research sample), the exploratory open-ended questionnaire, as well as insights and feedback obtained from expert judges specialized in the field. These inputs contributed to the development of the final items in the analysis form.

Validity of the Items

The researcher presented the preliminary version of the content analysis tool, which initially consisted of 18 items, to a panel of expert judges after determining the proposed items. Based on their observations and recommendations, several items were added, removed, or modified linguistically and scientifically to align with the objectives of the current research.

Subsequently, the researcher finalized the tool, which comprised five main domains: innovation, originality, balance, composition, dominance, and unity. Each main domain included several sub-items, amounting to a total of 16 sub-items used to analyze the students' artistic outputs.

The experts also recommended adopting a three-point scale: (Appears – Appears to some extent – Does not appear), assigning descending weights of 3, 2, and 1, respectively.

After the revised tool was resubmitted to the panel of judges, the researcher applied Cooper's agreement formula, which resulted in a high agreement rate of 0.86.

Reliability of the Items

To determine the reliability of the content analysis tool, the researcher selected a separate sample from the Expressionist school, excluding the main research sample—and sought the assistance of external evaluators with expertise in painting. After reviewing the analysis templates, the evaluators confirmed the reliability of the tool.

The researcher then applied Holsti's correlation coefficient, which yielded a high reliability score of 0.88. Table (1) illustrates these results.

Table (1): Reliability Coefficients According to Holsti's Formula

Evaluator Comparison	Reliability (%)

Researcher with Analyst (1)	90.0
Researcher with Analyst (2)	84.0
Analyst (1) with Analyst (2)	90.0
Overall Average	**88.0**

Analysis of Research Samples

Description of Artwork – Sample No. (1)

- **Student Name:** Abeer Ziyad Tareq
- **Date of Production:** 2018–2019
- **Title of Artwork:** Not identified by the researcher
- **Dimensions:** 100 × 80 cm

Medium: Acrylic on canvas
Art Movement: Expressionism
Location: Department of Art Education

The student developed an innovative spatial concept centered around a form devoid of specific details, surrounded by a variety of colors that evoke a sense of confusion and disorientation—reflecting the psychological turmoil often experienced by individuals. Despite this impression of chaos, the colors are applied with a spontaneous yet aesthetically pleasing harmony. Symbolic and chromatic elements are placed on the left side of the head, accompanied by subtle, delicate brushstrokes across other parts of the form. Furthermore, the extensive use of overlapping colors conveys a state of tension, agitation, and anxiety enveloping the central figure. Through this composition, the student successfully expresses a spatial idea that balances form and color intuitively. The background is divided into sections, one of which is a dark, shadowed area containing lighter color patches, symbolizing the influence of the surrounding environment on the life of the depicted figure (the "person"). The internal agitation is further emphasized by the deliberate blurring of the form, leaving it without identifiable features that might suggest a specific place or time. Clear gradations of light emerge within the interwoven colors, adding visual depth and aesthetic vibrancy around the central figure. The composition skillfully occupies the pictorial space through the student's imaginative vision, achieving a harmonious equilibrium between background, figure, and the interplay of colors.

The student employed a circular geometric form accompanied by rectangular shapes positioned beneath it on both sides of the head, resembling the shoulders of a human figure. Through this internalized visual expression, the student transformed the human

figure into a robotic entity, serving as a symbolic representation of the mechanization of human existence. This creative interpretation reflects a free, expressive vision of a reality the student perceives as a source of anxiety and tension in human life. Moreover, a distinct, distorted geometric boundary separates the personal space of the figure from its external environment, reinforcing the conceptual contrast between the individual and the surrounding world.

The artwork is distinguished by the dominance of color over both the form and the background, conveying a tangible spatial vision drawn from the student's imagination. The gradations of color, encompassing areas of light and shadow, contribute to the creation of a vivid mental image reflective of the artist's perception. The diversity of chromatic lines, along with the interplay of harmony and contrast among colors, and the integration of both structured and distorted geometric forms, demonstrate a refined compositional balance. The coordinated distribution of varied color values generates an expressive outcome characterized by dramatic, realistic, emotional, and introspective qualities, ultimately producing a distinctive spatial-visual experience.

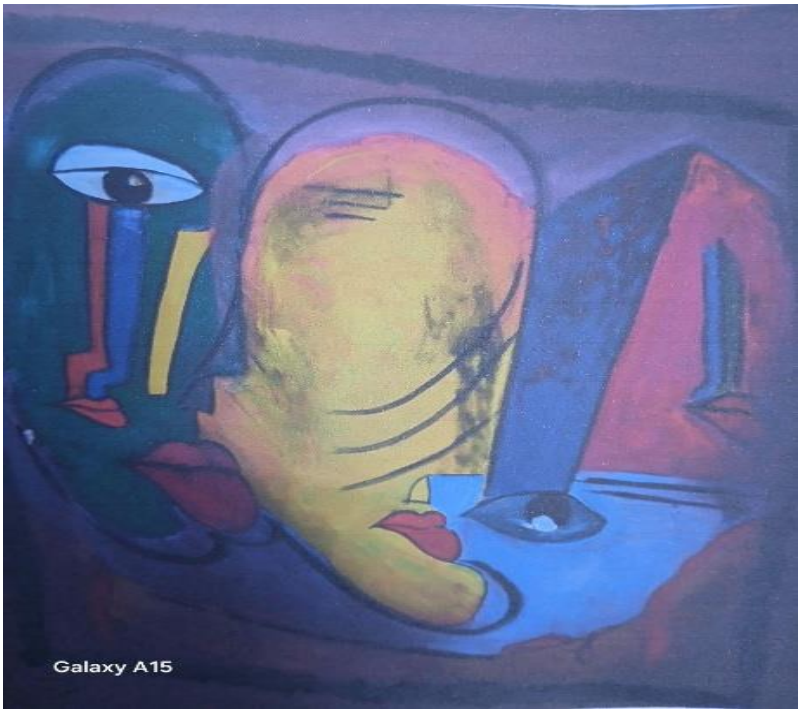
Sample No. (2)
Student Name: Not identified by the researcher
Date of Production: 2018–2019
Title of the Artwork: *Agony*
Dimensions: 100 × 80 cm
Medium: Acrylic on canvas
Art Movement: Expressionism
Location: Department of Art Education

The student expressed, in a spontaneous and tragic manner, a scene depicting two figures: one representing a sick or dying person, and the other—presumably his wife—portrayed in a state of fear and sorrow. The student illustrated the patient's soul surrounded by a white hue, symbolizing the Angel of Death, in an attempt to convey the dramatic interaction among the elements of the composition. Through this work, the artist visualized a spatial-mental representation inspired by realistic simulation, capturing the profound emotional intensity of the moment of human death and imaginatively portraying the form of the Angel of Death and the overall atmosphere surrounding that moment. This approach created a sense of visual balance through the interplay of soft, spontaneous color lines—particularly visible in the woman's clothing—and the sharp, forceful lines that convey the intensity and difficulty of the moment experienced by both figures, whose faces reveal deep fear and distress. The dark, shadow-filled areas throughout the house further emphasize the somber, melancholic atmosphere. However, according to the student's imagination and personal spatial vision, the Angel of Death is entirely composed of light; thus, he

was depicted in white, illuminating most parts of the house. The artist also portrayed the Angel's face with austere, striking features, making it the dominant and most distinctive element in the artwork, while leaving certain parts of the home enveloped in darkness to heighten the dramatic contrast between light and shadow.

The artwork is distinguished by the presence of numerous sharp lines that capture the moments of fear and panic experienced by the two figures. These are contrasted with softer lines that reflect the student's sense of compassion and empathy toward them—most notably expressed through the white tonal lines representing the Angel of Death surrounding both the patient and the woman. The absence of detailed hands, replaced by strong, rigid lines, symbolizes emotional paralysis or the freezing of movement, serving as a spontaneous visual response to an intense moment of emotional upheaval. Additionally, the use of sharp black lines encircling the two figures signifies an inner expression of distress and the desire to escape from the situation. The student deliberately exaggerated the proportions of the figures beyond their natural scale to emphasize psychological tension. The colors function as mental representations of the student's perception, forming a coherent and harmonious chromatic composition with dark tonal gradations that align with the dramatic and emotional nature of the scene. By skillfully employing light and shadow to fill the pictorial space, the student created expressive spatial dimensions that reinforce the dramatic essence of the varied forms within the artwork.

Sample No. (3)
Student Name: Nour Al-Din Abbas Shihab
Date of Production: 2018–2019
Title of the Artwork: *The Speakers*
Dimensions: 100 × 80 cm
Medium: Acrylic on canvas
Art Movement: Expressionism
Location: Department of Art Education



The painting is characterized by a dramatic, introspective, and imaginative quality, through which the student depicted the idea that a single face may embody multiple masks—representing the personas people use to conceal their true selves. The artist expressed this concept with spontaneity and sincerity, translating an inner vision of these metaphorical faces into symbolic and meaningful forms. Each face embodies a distinct emotional or psychological state: one symbolizes sorrow, expressed through the use of color; another is blind, unable to perceive the truth, lacking eyes altogether; a third speaks without reason

or intellect; and yet another carries all these faces within itself, consumed by anger. These diverse representations are conveyed through variations in color intensity, line strength, and softness, all of which contribute to a sense of balance within the

composition. Moreover, the student skillfully utilized light and shadow to articulate the individual character of each face, enhancing the expressive depth and psychological realism of the artwork.

The student expressed the faces spontaneously through distorted geometric forms, emphasizing the fantastical and irregular nature of the multiple human personas. This approach demonstrates the artist's meticulous attention to the details of her imagined mental image. The spatial imagery in the student's mind played a crucial role in shaping the depiction of the faces, which were represented freely, with the composition centered primarily on the dominance of these faces. Each was rendered with distinct colors that conveyed its unique, spontaneous emotional expression. Sharp and assertive lines were used to define the boundaries between the four faces, highlighting the individuality and symbolic meaning of each one. The interplay of harmony, contrast, and balance among the facial colors reflects the student's imaginative spatial conception, effectively translated into the visual composition. The strategic use of color gradations, areas of light and shadow—particularly in the faces that embody multiple expressions or speak without reason—enhanced the emotional depth and visual coherence of the work. The dark-toned background, marked by the absence of light, accentuated the prominence and clarity of the faces, which dynamically occupied the pictorial space both formally and chromatically. This deliberate contrast underscores the student's focus on materializing her conceptual and imaginative ideas through expressive spatial visualization.

Research Findings

First: Presentation and Interpretation of Results
The following represent the most significant findings reached by the researcher:

1. The presence of **spatial/visual imagination** was evident and strongly manifested in all samples of the study. It was depicted spontaneously through both external and internal mental symbols.

2. The **balance** observed in Sample (1) was characterized by tension, anxiety, and a sense of chaos—whether in colors, lines, or the distribution of shadow and light—unlike Samples (2) and (3), which demonstrated calmness and stability. This visual harmony fostered a sense of engagement and contemplation in the viewer, allowing for a deeper understanding of the student's artistic concept and visual imagination.

3. The **compositional structures** in all samples were clearly and effectively achieved, reflecting the students' ability to freely and spontaneously express their visual ideas. This was evident through geometric, organized, or irregular forms that distinguished each shape within the artistic works.

4. **Dominance** was primarily achieved across all samples through the interplay of colors and lines, as well as tonal gradations that created shadow and light areas. In Sample (1), this interplay produced a strong expressive and abstract impression aligned with the mental image, whereas in Samples (2) and (3), the weaker contrast between light and shadow somewhat diminished the clarity of the conceptual idea and its perceptual impact on the viewer.

5. **Unity** was successfully realized in all samples belonging to the students' expressionist school. In Sample (2), colors were relatively harmonious and coherent, while the variation between soft and sharp lines generated a degree of tension and visual disorder. In contrast, Samples (1) and (3) exhibited well-balanced lines, color distributions, shadow and light areas, and spatial relationships, all of which conveyed a sense of tranquility in the students' visual and imaginative expression. These compositions reflected a refined, emotionally rich, and aesthetically mature understanding of visual form and artistic conception.

Second: Conclusions

Considering the findings of the present research, the following conclusion was reached:

The research tool employed in this study demonstrated a strong capacity to **identify spatial intelligence within expressionist art** in a precise, systematic, and scientifically validated manner. This effectiveness is attributed to the tool's **high validity and reliability**, which enables it to accurately assess the students' artistic and technical proficiency levels.

Third: Recommendations

Considering the results and conclusions, the following recommendation is proposed:

Researchers in colleges and departments of fine arts institutes are encouraged to intensify their efforts in producing a greater number of **expressionist art works** by undergraduate and postgraduate (Master's) students at the **College of Fine Arts, University of Baghdad**.

Fourth: Suggestions

To build upon the present research, the following studies are proposed:

1. A study on **multiple intelligences in modern art** and their manifestations in the works of students from the Department of Art Education, Colleges of Fine Arts in Iraq.

2. A study on **multiple intelligences in postmodern art** and their manifestations in the creative outputs of postgraduate students in the Colleges of Fine Arts across Iraq.

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Appendix (1)
Ministry of Education
General Directorate of Physical Education and School Activities
Department of School Activities

Dear Professor .....,

Subject: Questionnaire for Evaluating the Validity of the Preliminary Form of Sample Analysis

Regards,

The researcher aims to **investigate the manifestations of spatial intelligence in the works of fourth-grade students within the expressionist school**.

After reviewing relevant literature and previous content analysis instruments, the researcher has developed a **preliminary version of a content analysis tool for spatial/visual intelligence**.

Given your extensive expertise, knowledge, and distinguished academic standing, the researcher would like to benefit from your opinions regarding the **validity and appropriateness of the items included in this tool**.

With sincere thanks and highest respect,

Full Name:
Title:
Specialization:
Place of Work:

Dr. Zeina Saleem Kamal

Senior Technical Supervisor

Appendix (2)
Final Version of the Content Items Analysis Form

Spatial / Visual Intelligence	Appears	Somewhat Appears	Does Not Appear
Expressiveness			
Innovation and Renewal			

The spatial intelligence is concerned with the spatial relationship between the elements of the artwork.			
Spatial intelligence pays attention to the artistic subject and spontaneous expression.			
Spatial intelligence focuses on the essence of the work based on mental visualization and the use of symbols.			
Spatial intelligence is concerned with the method of artistic expression of forms within the composition.			
Visual intelligence is achieved through lines that create balance within the artwork.			
Spatial intelligence is reflected in the balanced use of colors in the painting.			
Balance			
Spatial intelligence focuses on light and shadow values within the artwork			
Visual intelligence is concerned with spatial areas and how they are filled with color or form			
Spatial intelligence emphasizes achieving balance among shapes			
Compositions			
Spatial intelligence values free (spontaneous or automatic) expression.			
Dominance			
Spatial intelligence focuses on the dominance of form and line within the artwork.			
Spatial intelligence emphasizes the dominance of color in the artwork.			
Spatial intelligence focuses on the dominance of tonal values in the artwork.			

Spatial / Visual Intelligence	**Appears**	**Partially Appears**	**Does Not Appear**
Unity			
Spatial intelligence is reflected in the diversity of lines within the artwork.			
Spatial intelligence emphasizes the presence of harmony and coherence—or contrast—among colors.			
Spatial intelligence depends on light and shadow values within the artwork.			