

UNIVERSITY OF EDUCATION, WINNEBA.

**INVESTIGATING FACTORS THAT INFLUENCE STUDENTS' CHOICE OF
COLOUR FOR PICTURE-MAKING**



JOSEPHINE ADOMA ASARE

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UNIVERSITY OF EDUCATION, WINNEBA.

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The logo of the University of Education, Winneba, is a circular emblem. It features a central white sunburst with a flame-like top, set against a red background. Below the sunburst are two stylized eyes or faces in blue and white. The entire emblem is surrounded by a white border with a decorative, flame-like pattern at the bottom.

**JOSEPHINE ADOMA ASARE
(202122624)**

**A dissertation in the Department of Art Education,
School of Creative Arts,
Submitted to the School of Graduate, in partial fulfilment
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Master of Philosophy
(Art Education)
In the University of Education Winneba.**

DECEMBER, 2024

DECLARATION

Candidate's Declaration

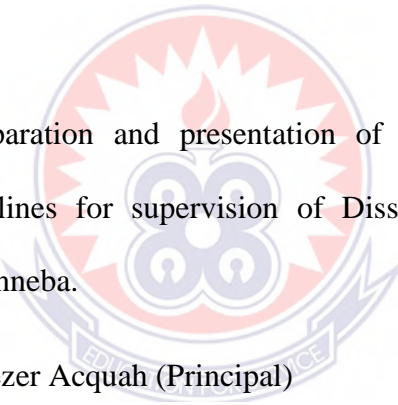
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Supervisors' Declaration

I hereby declare that preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Dissertation as laid down by the University of Education, Winneba.



Supervisor Name: Dr. Ebenezer Acquah (Principal)

Signature:.....

Date:.....

Supervisor Name: Professor Emmanuel Rexford K. Amissah (Co-supervisor)

Signature:.....

Date:.....

DEDICATION

I dedicate this research to my family for their inspiration, support, encouragement and understanding throughout the research period.



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ABSTRACT

The main objective of the study was to examine the factors influencing students' choice of colour in Picture Making. The study was guided by three specific objectives; to explore the students' knowledge of colour symbolism in relation to their choice of colours in Picture Making at Tema Secondary School, Ghana; to examine students' perception of colour combinations for Picture Making and; to explore the rationale for choosing colours for Picture Making by students at Tema Secondary School. The study adopted a descriptive research design and a qualitative research approach. Nine students were selected for the study. The findings show that colour symbolism is very essential to students when selecting the choice of colour in their picture making. The study's findings also showed that students have a certain degree of understanding of colour combinations as other respondents were of the view that it sometimes poses a challenge for them during picture making. The study recommends that teachers can assign research projects on specific colours and their symbolic meanings. Teachers should have students present their findings to the class, and discuss historical, cultural, and psychological associations. This can promote independent learning and deeper exploration.



CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Colour stands for different meanings for different individuals. For an artist it is the pigment, for a psychologist it is the perception emerging in the human mind, for a physiologist it is one characteristics of radiant energy, for an ordinary man walking on the street it is one of the qualities of object or source of light (Hunjet & Ivančić, 2018). In medical field, an investigation is conducted on the effects of colours on life and human health. While psychologists attempt to designate the effects of colours on human behaviours, artists utilize colours as a tool in creating their artworks (Gray & Malins, 2016). Colour contributes immensely to the beauty of not only design products but art products in general. Due to the captivating nature of colour, it dominates all other elements of design and for that reason it is considered the quickest element in relaying messages, in attracting attention and thereby affecting human emotions and consumer choice (Diethelm, 2021). O'Connor (2021) avers that the colour of a product has a vital role to play in the purchase decision of a consumer. For this reason, a consumer's colour preference is always taken into consideration when designing and marketing products.

Likewise for a student reading art education, colour constitutes a major place as one component of design, assisting the student in transforming their creative impulses into artistic activities. In works of art, artists use colour to depict and describe the subject. Artists, especially painters, utilize their knowledge of colour to portray mood, light, depth, and point of view in a work of art based on their preferences in picture making (Motamed, Tucker & Grose, 2015). A visual representation of something, such as a person or scene, produced on a surface, as in a photograph, painting, etc.

For Instance, in colour preference, red is the most preferred colour among young children for an interior environment (Agoston, 2013) and elderly (Viennot & De Hosson, 2012). While blue is the most preferred colour among adults (Albers, 2013), office workers and male students (Ahmed & Gurumoorthy, 2017). On the other hand, when referring to colour perception, some studies have found that perceptions could contribute to positive and negative effects. It is said that red evokes avoidance behaviour (Motamed & Tucker, 2018) even though red is found to be highly stimulating in performance context (Hanafy & Sanad, 2015). Therefore, from the opinions given, it is seen that different people have their distinct preference and perception to every single colour depending on the meaning they construct of the colour which are mostly influenced by emotions (Bateman, 2013).

1.2 Statement of the Problem

Colour is a visual enhancement element that is critically important in enriching learning process. Colour is believed to be able to cause positive or negative behaviour such as avoidance or withdrawal behaviour; affecting performance and stimulate senses (Kopacz, 2012). It is also learned that colour contributes to improvement of attention span, develops cognitive abilities and refresh one's perception towards his environment. However, finding an appropriate colour for learning and in picture making is complicated as it involves human preference, perception and differences of emotional reactions (Spence, 2020). Currently, there are numerous findings in colour preference and colour perception research that has been conducted for various age groups and purposes.

In art education, colour is a meaningful and richly-endowed tool in the manifestation of the subjective world of students. In order to form teaching methods in which students can manifest their true personalities via their colour approaches, which can allow students to get a better idea of their own colour worlds and which can assist them in preparing works applicable to their personalities, it is now a requirement to conduct further research on

colour preferences and reasons for choosing such colours in picture making. As relevant literature studies are examined it surfaces that in art education the number of measurement and analysis researches on colour preferences is limited. On that account in researches concerning art education the factors affecting colour preferences particularly need to be analysed extensively.

In art education, picture making is a comprehensively treated topic in curriculums starting from kindergarten. While in kindergarten and elementary education, colour knowledge is intensely taught, in secondary education students are mostly expected to reflect their theoretical colour knowledge on their works of art and also to improve their knowledge via practicing (Osborne, 2017). In that sense, it is feasible to claim that starting from secondary education, students make deliberate colour choices in their artworks on the basis of a set of factors. A study by Bawa and Osei (2022) on colour preference among college students in Ghana revealed that the most preferred colour among the respondents was blue whereas orange was the least preferred colour. However, the study did not explain the reasons or factors that led to students' preference for these colours. The gap established here is relevant since it is important to explore the factors that influence students' choice of colour in picture-making among visual arts students in Tema Secondary School.

This research is therefore relevant by virtue of providing information on the factors affecting students' colour preferences for their artworks and especially the rationale for colour choices among visual art students.

1.3 Purpose of the study

The main purpose of the study was to examine the factors that influence students' choice of colours in picture-making among students in order to organise lessons that will be productive and beneficial to both the learners and the teacher.

1.4 Research Objectives

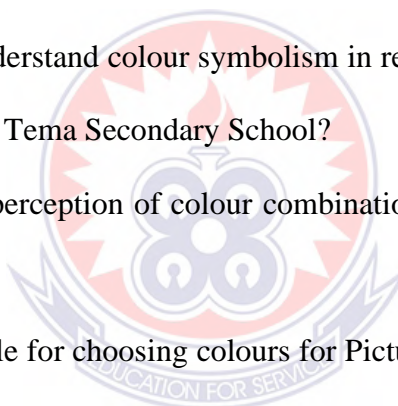
The research was guided by the following specific objectives:

1. To explore the students' knowledge of colour symbolism in relation to their choice of colours in Picture Making at Tema Secondary School.
2. To examine students' perception of colour combinations for Picture Making at Tema Secondary School
3. To explore the rationale for choosing colours for Picture Making by students at Tema Secondary School

1.5 Research Questions

The research was guided by the following research questions.

1. How do students understand colour symbolism in relation to their choice of colours in Picture Making at Tema Secondary School?
2. What are students' perception of colour combinations for Picture Making at Tema Secondary School?
3. What are the rationale for choosing colours for Picture Making by students at Tema Secondary School?



1.6 Delimitation of the Study

The study aims to examine the factors influencing students colour choice in Picture Making among students at Tema Secondary School. It focused on the Visual Arts students of the school. Geographically, the study was delimited to the Tema Metropolis.

1.7 Significance of the Study

The findings of the study were essential to understand that some learners are more sensitive to colours and its applications. Because learners react to colours in different ways, the study would help teachers and students to understand how to use colour effectively in

the classroom on a daily basis. This research outlined strategies on how to use colour to its maximum potential.

This study attempts to show how incorporating colour preferences and the enjoyment of colour have the potential to extend students' learning, which is the teacher's primary goal. Undertaking this study is important, as it offered teachers more avenues to achieve that primary goal. The study would also help future researchers to explore more on factor on colour preference among students in picture making.

1.8 Definition of Key Terminologies

Colour: colour is an aspect of any object that may be described in terms of hue, lightness, and saturation. In physics, colour is associated specifically with electromagnetic radiation of a certain range of wavelengths visible to the human eye.

Picture Making: A visual representation of something, such as a person or scene, produced on a surface, as in a photograph, painting, etc.

1.9 Organisation of the Study

This study was organized into five chapters. Chapter One outlined a background to the research, statement of the problem, research objectives and research questions, significance of the study, scope of the study, and limitation of the study. Chapter Two also provided a review existing literature on factors influencing colour preference of students in picture making. The chapter however presented empirical findings of other studies which serve as a basis for the development of assumptions. Chapter Three focused on the research methodology used in conducting the research and outlines the approaches; the research design and strategies, sampling consideration, data collection procedures and analytical procedures. The fourth chapter presented the data analysis and presentation. Finally, a reflective summary of findings, and recommendations were given in Chapter Five.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Overview

This chapter was structured in the alignment of the specific objectives of the study. It comprises of literature review drawn from various sources. The review is related to conceptual, theoretical and empirical literature on factors influencing students colour choice in picture making.

2.2 Theoretical Framework

2.2.1 Colour Theory

Colour theory refers to a set of principles and criteria employed by designers to effectively communicate with people by utilising visually pleasing colour palettes in visual interfaces (O'Connor, 2021). Designers utilise a colour wheel and draw upon a comprehensive body of knowledge encompassing human visual perception, psychological factors, cultural influences, and other pertinent aspects to consistently make optimal colour selections. Colour theory explores the essential characteristics of colour, namely hue, saturation, and brightness, and their interactions that give rise to a wide range of colours. The colour wheel, which serves as a visual depiction of the spectrum of colours, is a fundamental element in the field of colour theory. The colour wheel is comprised of main hues, including red, blue, and yellow, as well as secondary hues, which include green, orange, and purple. Additionally, tertiary hues are formed by blending a primary hue with an adjacent secondary hue. The wheel functions as a fundamental tool for investigating and analysing colour connections and combinations.

Colour harmony is considered to be one of the fundamental principles in the field of colour theory (Price, Jewitt & Crescenzi, 2015). Harmony refers to the aesthetically pleasant and emotionally evocative arrangement of colours. Complementary colours, which are situated

in direct opposition to one another on the colour wheel, possess the ability to generate pronounced contrast and are frequently employed to capture attention or establish dynamic compositions. An illustration of complementary colours can be observed in the combination of red and green, which can yield a visually captivating effect. Conversely, colours that are similar, meaning they are positioned near to one other on the colour wheel, have the ability to establish a perception of cohesion and are frequently employed to evoke a more harmonious and calming impact. Consider envisioning a sunset characterised by a diverse spectrum of hues, including colours of orange, red, and pink. Comprehending colour temperature constitutes a fundamental feature inside the realm of colour theory. The categorization of colours into warm or cool is frequently employed in order to convey the emotional responses they elicit and their correlation with temperature. Warm colours such as red, orange, and yellow are commonly linked to attributes such as warmth, vitality, and intense emotions. The incorporation of certain elements can evoke feelings of warmth and excitement inside a design or artwork. On the contrary, cool hues such as blue, green, and purple are commonly linked to feelings of relaxation, serenity, and tranquilly. These hues possess the capacity to elicit a perception of low temperature or to establish a tranquil ambiance.

Colour psychology is a field within the realm of colour theory that investigates the impact of colours on human emotions and behaviour. Various colours have the potential to evoke distinct psychological reactions. For example, the colour red frequently connotes emotions such as love, rage, or passion. The activity has the potential to increase the heart rate and induce a feeling of heightened urgency. In contrast, the colour blue is frequently linked to feelings of tranquilly and reliability. The potential benefits of this intervention include the reduction of blood pressure levels and the promotion of a subjective perception of stability.

The utilisation of colour psychology is frequently employed by advertisers, marketers, and designers as a means to elicit specific emotions among their intended target demographic.

In the domain of art and design, the knowledge of colour theory is vital for the purpose of generating visually appealing and efficacious compositions. Artists employ colour as a means of communicating mood, emotion, and significance within their artistic creations. The selection of colours in a painting or graphic design has the ability to convey nuanced messages that are beyond the scope of spoken expression. As an illustration, a painting that exhibits a predominant utilisation of warm hues such as red and yellow has the potential to communicate a palpable feeling of exhilaration and dynamism. Conversely, a composition characterised by cold colours like blue and green possesses the capacity to generate a sense of tranquilly and reflection.

Colour theory plays a crucial role in the creative process of graphic designers, enabling them to produce visually compelling designs. When selecting colours for a logo, website, or marketing materials, various elements are taken into consideration, including legibility, contrast, and brand identification. The selection of appropriate colours has the potential to enhance brand recognition and effectively communicate its core values and distinctive characteristics. For example, the utilisation of vivid red and yellow hues in McDonald's logo elicits sensations of warmth and enthusiasm, whilst the incorporation of a calming blue shade in Facebook's logo conveys a sense of reliability and interpersonal affiliation.

Colour theory is of great importance in the fields of interior design and architecture. Colour is employed by designers to establish visually appealing and utilitarian environments. The utilisation of warm colours in a room can elicit a sense of cosiness and invitation, whereas the incorporation of cool colours can provide an illusion of spaciousness and tranquilly. The utilisation of complementary colours can contribute to the enhancement of visual appeal, while the meticulous choice of colours can exert an influence on individuals'

perception of a given area. Hospitals frequently employ gentle, soothing colours with the intention of mitigating anxiety among patients, whereas restaurants may opt for warm, invigorating colours to promote appetite and foster a convivial atmosphere.

Within the realm of fashion, designers rely on colour theory as a guiding principle to craft garments and accessories that appeal to diverse preferences and various circumstances. The selection of colours in the realm of fashion serves as a means to convey prevailing fashion trends, cultural influences, and personal manifestations of individual style. Colours have the ability to communicate feelings of assurance or sophistication. For instance, a traditional black dress may serve as a representation of refinement and elegance, but a vivid and multi-coloured ensemble might convey a lively and dynamic disposition. In addition to its significance in the domains of art and design, colour theory possesses practical implications across several disciplines. Colour coding is employed in the field of medicine to differentiate various categories of pharmaceuticals and to effectively communicate vital information within healthcare environments. In the field of traffic management, the utilisation of colour signals and signs serves as a means to effectively communicate directions and cautions to drivers.

However, there are three basic categories of colour theory that are logical and useful: The colour wheel, colour harmony, and the context of how colours are used. A colour circle or wheel is based on red, yellow and blue and is traditional in the field of art. Sir Isaac Newton developed the first circular diagram of colours in 1666. Since then, scientists and artists have studied and designed numerous variations of this concept. Differences of opinion about the validity of one format over another continue to provoke debate. In reality, any colour circle or colour wheel which presents a logically arranged sequence of pure hues has merit.

2.3 Concept of Colour

Colour is a pervasive phenomenon that has a profound impact on all aspects of our daily existence, including our cognitive processes, emotional responses, and decision-making abilities (Gage & Grovier, 2023). The notion in question is profoundly ingrained in our being, assuming a crucial function in our comprehension and engagement with the surrounding environment. The concept of colour has captivated scientists, artists, and philosophers for ages, as it encompasses a wide range of dynamic and diverse expressions, from the vivid tones of a sunset to the nuanced variations found in grayscale photography (Na, 2015).

Fundamentally, colour can be defined as the optical sensation resulting from the perception of distinct wavelengths of light. When light comes into contact with objects, certain wavelengths are assimilated, whereas others are reflected. The perception of colours is contingent upon the reflection and subsequent reception of specific wavelengths of light by our visual organs (Provvidenza, Carmichael, & Reed, 2019). The phenomenon of light-matter interaction serves as the essential foundation for the concept of colour, playing a crucial role in our perceptual capacity to discern the diverse range of hues that encompass our surroundings (Hilken et al., 2018). The human eye possesses an extraordinary capacity to perceive a wide spectrum of colours. The process is facilitated by specialised photoreceptor cells known as cones, which are situated within the retina. The cones possess the ability to detect and respond to varying wavelengths, so enabling us to sense a wide range of colours (Bestley & McNeil, 2022). There exist three basic types of cones, which are specialised to see distinct ranges of wavelengths. These cones are classified as red, green, and blue cones. The human brain generates the complete range of colours that we sense by interpreting the impulses received from these cones.

The perception of colour is subjective and might exhibit variability across individuals. The phenomenon of subjectivity emerges as a result of a confluence of biological determinants, cultural conditioning, and individual lived encounters (Pauwels, 2015). Certain individuals may exhibit variations in the quantity or sensitivity of their cones, resulting in disparities in their perception of colours. Cultural influences are known to exert a notable influence on colour perception, as diverse societies may attribute distinct meanings and connotations to specific colours. Moreover, the manner in which individuals see and react to colours can be influenced by their personal experiences and recollections (Styles, 2020).

The influence of colours on human emotions and behaviours is significant. The field of colour psychology investigates the manner in which various colours can evoke distinct emotional and psychological reactions. Warm colours such as red and yellow are frequently linked to emotions of vitality, warmth, and intensity, whilst cool colours like blue and green have the ability to elicit a sensation of tranquilly, peace, and relaxation. Advertisers, designers, and marketers utilise these associations in order to exert influence on consumer decision-making and establish emotional bonds between consumers and products or brands (Wiersma, L. (2020). Colours possess cultural and symbolic value as well. Across various civilizations, specific meanings and rituals are often attributed to certain colours. In Western societies, the colour white is frequently linked to notions of purity and innocence, yet in certain Asian cultures, it is associated with grief and death. The colour red holds positive connotations of success and prosperity in numerous Asian cultures, but in Western contexts, it is often associated with danger or warning. A comprehensive grasp of these cultural subtleties is necessary in order to facilitate successful communication and foster cultural sensitivity (Sutcliffe, 2022).

Moreover, the utilisation of colour holds significant importance within the realm of art and design. Colour is employed by artists as a means to express emotions, generate visual

resonance, and effectively communicate their concepts. The selection of a colour palette for a painting, graphic design, or interior setting has the potential to significantly impact the viewer's experience and perception. Colour theory is a discipline within the realm of art and design that investigates the fundamental principles and interconnections of colours (Bucklow, 2016). It encompasses various concepts, such as complimentary colours, colour harmony, and colour contrast. These concepts serve as guiding principles for artists and designers in the creation of visually appealing and effective compositions.

Within the domain of science and technology, colour assumes a pivotal role across diverse disciplines. The field of physics include the examination of colour, which entails a comprehensive comprehension of the electromagnetic spectrum and the intricate interplay between light and matter. The acquisition of this information is crucial in disciplines such as optics, as the advancement of optical instruments necessitates meticulous management of light and colour. Colour plays a vital role in the domains of computer graphics and digital imaging, wherein algorithms and colour models are employed to generate lifelike and aesthetically pleasing images and movies (Mills & Yusufu, 2016).

In addition to its aesthetic and perceptual aspects, colour assumes a key role in our daily lives. Colour coding is commonly employed in the realm of industry and manufacturing as a means of ensuring safety and facilitating organisation. As an illustration, the colour red can serve as a symbol of peril or a signal to halt, whereas the colour green might represent security or a signal to go. Colour coding is employed in various disciplines, such as medicine, to differentiate between distinct categories of pharmaceuticals or to signify the level of seriousness associated with a particular medical ailment (Nixon & Aguado, 2019).

2.3.1 Types of Colours

There are three types of colours; namely, primary, secondary and tertiary colours.

Primary Colours: Red, yellow and blue. In traditional colour theory (used in paint and pigments), primary colours are the 3 pigment colours that cannot be mixed or formed by any combination of other colours. All other colours are derived from these 3 colours. The essence of the primary colours is in their inherent purity and fundamental simplicity (Cutter, 2021). The designation of these colours as primary arises from their inability to be generated through the combination of other colours. The primary colours, including red, blue, and yellow, serve as the fundamental hues from which all other colours can be generated. The systematic exploration of this concept can be attributed to Sir Isaac Newton in the 17th century, during which he conducted experiments involving prisms and made the groundbreaking discovery that white light could be disintegrated into a rainbow of colours (Gilson, 2023). The author observed that this spectrum might be simplified to three fundamental colours, namely red, blue, and yellow. The primary colours are fundamental components of the colour wheel, which functions as a graphical depiction of the interconnections among different colours. The colour wheel is an essential instrument for painters, since it facilitates their comprehension of the interplay of colours. The classification comprises three fundamental divisions: primary colours, secondary colours, and tertiary colours. The primary colours are arranged at equal intervals on the colour wheel, creating a triangular configuration, and serve as the foundational basis for all colour blending processes (Heller, Mahr & Keeling, 2019).

The significance of primary colours in picture production mostly lies in their role within colour theory and harmony. Colour theory is employed by artists in order to produce aesthetically pleasing and harmonious compositions. The utilisation of the colour wheel facilitates the comprehension of complimentary colours, which are positioned opposite

each other on the wheel, analogous colours, which are situated close to one another on the wheel, and triadic colour schemes, which involve colours uniformly distributed across the wheel (Ameen & Vadera, 2017). Through the use of these concepts, artists have the ability to alter the emotions and responses elicited from the spectators. For example, the utilisation of complementary colours generates a perceptible difference and tension within a visual composition, whilst the application of analogous colours imparts a perception of harmony and unity.

The utilisation of primary colours is of paramount importance in effectively communicating mood and emotion inside a work of art. The colour red is frequently linked to emotions such as passion, love, and intensity (Sanad, 2017). The artwork has the ability to elicit intense emotional responses and capture the viewer's focus on particular aspects present in the composition. In contrast, the colour blue is associated with feelings of calmness, tranquilly, and depth. The utilisation of this technique is frequently employed to establish a perception of spatiality and remoteness inside a visual artwork. The colour yellow is commonly linked to feelings of warmth, energy, and happiness, thus making it an optimal choice for effectively communicating positivity and illuminating qualities inside a piece of artwork. Artists have the ability to effectively convey a diverse array of emotions and concepts by employing primary colours and their derived shades in a strategic manner (Gilson, 2023).

Primary colours possess not only emotional importance but also serve a pivotal function in the representation of reality. In the creation of representational or realistic art, artists frequently depend on primary colours as a means of capturing the intrinsic nature of the subject matter. The main colours have a crucial role in representing the human form, as they serve as the fundamental components for creating skin tones (Cem kasapbaşı & Elmasry, 2018). Artists have the ability to generate a diverse range of skin tones by

combining different ratios of red, blue, and yellow pigments, resulting in hues that span from the lightest shades of pink to the darkest shades of brown. Primary colours are utilised in the domain of landscape painting to faithfully replicate the vivid and multifarious hues that are inherent to the natural world. The utilisation of primary colours serves as the fundamental approach to expressing the aesthetic appeal of the natural environment, ranging from the vibrant azure sky to the luxuriant emerald foliage (Ravi, Goyal & Islam, 2022).

In addition, it is worth noting that basic colours play a substantial role in influencing the visual perception of depth and dimension inside a two-dimensional artistic composition. Artists employ several approaches, such as colour temperature and value, in order to provide the perceptual impression of spatial depth and three-dimensional form. Warm colours such as red and yellow have a tendency to visually go forward towards the observer, whilst cold colours like blue have a tendency to visually retreat into the background. Through adept manipulation of primary colours, painters possess the ability to create the illusion of three-dimensionality on a two-dimensional canvas, so imbuing their artwork with depth and verisimilitude (Goldwater, 2018).

The cultural and psychological significance of primary colours is also noteworthy. Diverse cultures and societies ascribe distinct interpretations to colours, including primary colours. As an illustration, the colour red frequently connotes auspiciousness and affluence within Chinese cultural contexts, yet it signifies peril and prudence within Western cultural contexts. The colour blue is frequently associated with feelings of peace and stability, which has led to its widespread use in corporate logos and uniforms. The colour yellow is frequently linked to feelings of joy and optimism, and it holds symbolic significance in diverse cultural contexts as a representation of sunlight and intellectual illumination (Blomstedt, 2020).

In the field of psychology, it has been shown that primary colours have the ability to elicit robust emotional reactions. Research findings indicate that the colour red has been observed to elicit an elevation in heart rate and provoke an increase in appetite. Consequently, this colour is frequently employed in the context of food packaging and advertising. The colour blue is widely recognised for its ability to induce a sense of calmness, making it a popular choice in healthcare environments where relaxation is sought. The colour yellow is commonly linked to feelings of happiness and has the ability to positively influence an individual's emotional state. The comprehension of the psychological ramifications associated with basic colours empowers artists to make intentional decisions that evoke a profound response from viewers at a subconscious level (Nixon & Aguado, 2019).

Secondary Colours

Green, orange and purple. These are the colours formed by mixing the primary colours. The significance of secondary colours in the creation of images lies in their formation through the mixing of main colours. Intermediary colours function as a means of connecting primary hues, so broadening the spectrum of colours available to artists and providing them with a diverse array of options for effectively communicating emotions, establishing visual coherence, and enriching the narrative aspects of their visual creations.

Secondary colours are derived from the interaction of main colours, namely red, blue, and yellow. When two primary colours are combined in equal quantities, they result in the formation of three secondary colours, namely green, orange, and purple. The secondary colours possess unique attributes and hold significance within the realm of visual art creation. The colour green, which is classified as one of the secondary colours, is produced by the combination of blue and yellow. The symbol embodies the concepts of nature, development, and rejuvenation. In the realm of visual arts, the colour green has the ability

to elicit emotions associated with serenity and a sense of rejuvenation. The utilisation of this artistic technique is prevalent in the representation of natural environments, encompassing landscapes, woods, and settings abundant with verdant flora. The wide range of green hues enables painters to effectively depict various natural settings, such as the rich emerald tones found in tropical rainforests or the gentle, subdued greens characteristic of tranquil meadows (Gage & Grovier, 2023). Artists have the ability to transport viewers to different natural surroundings and elicit emotions and memories linked with these locations through the utilisation of the colour green.

Orange, a secondary colour, is formed through the combination of red and yellow. The object in question possesses the qualities reminiscent of a sunset, exuding a sense of vitality, passion, and positive outlook. In the realm of visual arts, the colour orange can be strategically employed to establish focal points and effectively capture the viewer's attention (Tetsuka et al., 2019). The bold and visually striking characteristics of this tool render it highly valuable for effectively communicating emotions and generating a heightened sense of enthusiasm. Artists frequently utilise the colour orange to imbue their compositions with a sense of liveliness, be it through the vibrant radiance of a sunset casting its glow over an urban landscape or the rich hues of ripe fruit depicted in a still life painting.

Purple, which is classified as the tertiary colour, is created through the combination of red and blue pigments. The subject matter encompasses elements of enigma, transcendence, and imaginative expression. Within the realm of visual representation, the utilisation of the colour purple has the potential to evoke an impression of refined taste and cultivated refinement. The concept is frequently linked with notions of nobility and opulence. Purple is employed by artists to establish a majestic and captivating ambiance, whether through the opulent attire of individuals from the past or the profound and enigmatic shadows

present in a nocturnal setting. The colour purple holds a notable position in the realm of abstract and surreal art, as it is often employed to symbolise the ethereal and the subconscious (Roberts, 2022).

The importance of secondary colours in the creation of images extends beyond their inherent characteristics. Furthermore, they possess a pivotal function in the establishment of colour harmonies and linkages. The concept of complementary colours, which is a key premise in colour theory, involves the utilisation of colours that are positioned opposite each other on the colour wheel in order to generate contrast and enhance visual appeal. The concept in question is closely associated with secondary colours. As an illustration, it may be seen that the colour green is considered complementary to the colour red, orange is deemed complimentary to blue, and purple is recognised as complementary to yellow. The comprehension of these interdependent connections enables artists to carefully employ secondary colours in order to generate compositions that are both visually captivating and dynamic. Through the strategic placement of complementary colours, painters have the ability to accentuate specific elements within their artwork, so engendering a perception of equilibrium and unity. The juxtaposition of contrasting elements within the picture enhances its visual appeal and creates a lasting impression on the viewer (Wells, 2021).

Secondary colours are of significant importance in colour schemes. Artisans frequently employ colour schemes as a means of communicating distinct moods and feelings inside their artistic creations. The triadic colour scheme, widely favoured among designers, entails the utilisation of three equidistant colours on the colour wheel. The inclusion of secondary colours is crucial within this scheme, as they contribute to a well-balanced and harmonious amalgamation of hues. The triadic colour scheme can be employed by artists to generate aesthetically captivating and emotionally evocative imagery. An illustrative instance of a triadic scheme employing secondary colours could entail the utilisation of

green, orange, and purple, so engendering a composition that is both visually captivating and dynamically engaging (Wells, 2021).

Moreover, secondary colours have a crucial role in the creation of a perceived three-dimensional space and atmospheric effects in the field of pictorial representation. Artists employ these techniques to influence spatial relationships and perspective. For example, the utilisation of warm secondary colours such as orange can effectively enhance the perception of proximity in a composition, causing items to look closer to the observer. Conversely, the application of cool secondary colours like purple can be employed to create a visual effect of pushing objects towards the background, so generating a sense of distance and depth. The utilisation of atmospheric perspective, a method widely recognised in the art world, holds significant importance in the creation of a realistic portrayal of spatial depth inside two-dimensional artwork.

Tertiary Colours

Yellow-orange, red-orange, red-purple, blue-purple, blue-green and yellow-green. These are the colours formed by mixing a primary and a secondary colour. Tertiary colours, alternatively referred to as intermediate colours, are generated through the amalgamation of a primary colour with an adjacent secondary colour on the colour wheel. The main colours, namely red, blue, and yellow, are fundamental hues that cannot be created by mixing other colours. On the other hand, the secondary colours, which include green, orange, and purple, are produced by combining two primary colours in equal proportions. The tertiary colours are situated between the primary and secondary hues, resulting in a spectrum with six unique intermediate colours.

The importance of tertiary colours in the realm of visual arts resides in their capacity to enhance the depth, intricacy, and nuance of artistic compositions. In contrast to primary

colours, which possess a vivid and direct nature, or secondary colours, which exhibit a pleasing yet anticipated quality, tertiary colours serve as a connecting link between these two contrasting ends of the spectrum. The incorporation of these elements can enhance the emotional resonance and aesthetic allure of a composition (Ameen & Vadera, 2017).

The utilisation of tertiary colours allows for the simultaneous creation of contrast and harmony. An instance can be observed in which a painting exhibits a mainly red-orange background accompanied by yellow-green vegetation, thereby attaining a visually impactful juxtaposition between warm and cool colours, while concurrently upholding a sense of unity and equilibrium. The dynamic interaction of colours in this artwork not only captivates the viewer's attention but also encourages them to engage in a more profound exploration of the composition.

Furthermore, the utilisation of tertiary colours empowers artists to effectively communicate intricate emotions and narratives. Through deliberate and purposeful utilisation of intermediate colours, painters have the ability to elicit a diverse array of emotions and convey various thematic elements (Patel et al., 2023, May). For example, the use of blue-purple hues within a nocturnal setting might infuse the artwork with an aura of enigma and introspection, whilst the inclusion of red-orange embellishments can allude to concealed emotions or latent perils concealed beneath the facade. Tertiary colours are of significant importance in the creation of realistic and naturalistic representations of the world. In the natural world, a limited number of objects or situations consist solely of primary or secondary colours. On the contrary, the global landscape is a complex composition of subtle shades that necessitate the utilisation of tertiary colours in order to accurately depict it. Artists that aspire to depict the complexities of the natural world frequently utilise tertiary colours as a means to portray the nuanced fluctuations in colour and light.

Moreover, the utilisation of tertiary colours can effectively direct the viewer's gaze and establish prominent areas of interest within a given composition. When utilised with expertise, these intermediate colours possess the ability to direct focus towards particular places or objects, so guiding the viewer's sight and augmenting the overall visual progression of the artwork. An instance of employing red-purple flowers strategically inside a vast expanse of green foliage can generate an appealing focal point that demands attention (Patel & Tripathi, 2023, May).

2.4 Concept of Picture Making

The notion of creating visual representations is an intrinsic and ubiquitous element of human artistic and communicative endeavours. The concept of image creation involves a diverse array of artistic, technological, and cognitive procedures, which can be executed using traditional mediums such as painting and sketching, as well as modern digital technology.

Fundamentally, the act of creating visual representations is a dynamic and profoundly individualised mode of narrative expression. Every visual representation, whether it is a traditional painting, a photographic image, or a digitally created depiction, serves as a means of conveying a narrative. The narrative in question may exhibit varying degrees of explicitness and discernibility, ranging from overt and immediately identifiable to more nuanced and subject to several interpretations. In both scenarios, the individual responsible for generating the image assumes the position of the narrator, making deliberate choices regarding content inclusion, exclusion, and the manner in which their intended message is communicated. The decisions made during the process of creating visual imagery have the potential to significantly influence the emotional and cognitive reactions of individuals who engage with the artwork.

The act of creating images holds significant cultural implications. The artistic creation is subject to the impact of various factors, including the cultural milieu, historical circumstances, and individual life encounters of the artist. Artistic individuals frequently derive creative impetus from their immediate environment, narratives they have encountered, and the ideological frameworks that inform their perspectives. Therefore, art has the potential to serve as a manifestation of the values, aesthetics, and collective identity of a given culture. Across the annals of time, diverse societies have cultivated distinct artistic customs and modalities, so augmenting the opulent fabric of human ingenuity. Consequently, the notion of image creation is intricately linked to the manifestation of culture and the safeguarding of cultural legacy.

Furthermore, the act of creating images involves a multifaceted approach that combines technical proficiency with a creative perspective. In order to effectively communicate their thoughts, artists must attain a high level of proficiency in their selected medium, be it oil paint, charcoal, or digital software. The attainment of technical expertise should not be regarded as a final objective, but rather as a tool to enable and enhance the process of creative expression. Artistic practitioners employ their technical expertise to change the formal constituents of an image, encompassing factors like as composition, coloration, texture, and perspective, with the intention of attaining their intended emotional and aesthetic influence. The formal aspects discussed above serve as the fundamental components of visual representation, and possessing a comprehensive comprehension of their interplay is crucial in the production of visually captivating imagery.

The act of creating visual representations is closely interconnected with the process of self-exploration. Artists frequently employ their artistic endeavours as a conduit for the exploration of their own identity and the manifestation of their individuality. Artists have the ability to express their thoughts, emotions, and personal experiences through the

process of creating. The personal aspect of creating visual art can have therapeutic and cathartic effects, enabling the artist to engage with and make sense of intricate emotions and experiences. Thus, the act of creating images transforms into a means of self-reflection and interpersonal expression.

The notion of image creation encompasses more than conventional artistic mediums and encompasses contemporary digital technologies as well. The emergence of digital technology has significantly transformed the processes involved in the creation and dissemination of photographs. The advent of digital art tools, including graphic design software and 3D modelling programmes, has facilitated the democratisation of image creation, hence increasing its accessibility to a broader range of individuals. The advent of this technological transition has significantly broadened the scope of picture-making, granting artists the opportunity to explore novel mediums and techniques. Moreover, it has facilitated instantaneous global outreach to viewers via the internet. Furthermore, the act of creating visual representations possesses the capacity to question established conventions and stimulate analytical thought processes. Artistic practitioners frequently employ their creative endeavours as a means to engage with and critique prevailing social and political matters, disrupt dominant narratives, and foster transformative action. The field of art possesses a distinct ability to effectively communicate intricate concepts through visually captivating means, hence serving as a powerful instrument for promoting causes and providing critical analysis of societal issues. Within this particular setting, the act of creating visual representations serves as a medium via which individuals may voice their disagreement, advocate for inclusiveness, and foster meaningful conversations.

The concept of visual literacy is a vital part of picture-making. Visual literacy refers to the cognitive capacity to analyse and comprehend visual communications conveyed through images, akin to the way individuals interpret and comprehend written or spoken language.

The acquisition of visual literacy skills is of utmost importance in a contemporary society characterised by a pervasive presence of visual stimuli. In this context, individuals are exposed to an extensive array of images on a daily basis, mostly through channels such as advertising, media outlets, and various social platforms. The acquisition of knowledge regarding the principles of composition, colour theory, and semiotics has the potential to augment our capacity to interpret the intended significance and affective influence of visual representations. The act of creating visual representations, henceforth referred to as picture-making, encourages individuals to approach images in a manner that is both analytical and appreciative.

The notion of creating visual images is inherently interconnected with the concept of depiction. Artisans frequently generate visual representations to depict tangible and intangible entities, including items, individuals, locations, and concepts. The portrayal can encompass a spectrum of styles, ranging from faithful renderings of reality to more conceptual or symbolic expressions. The act of creating visual images involves more than the replication of physical attributes; it encompasses the ability to convey the essence, emotional impact, or conceptual importance of the subjects being shown. Artists has the capacity to influence our perception of the world through the deliberate curation, organisation, and interpretation of many aspects inside their artistic works. The act of creating visual representations serves as a means for artists to engage in an ongoing discourse with both historical and future contexts. Numerous artists derive inspiration from the artistic endeavours of their predecessors. The field of art history encompasses a diverse array of artistic styles and movements that have undergone evolution and mutual influence throughout history. Artistic practitioners frequently demonstrate reverence for historical conventions while also engaging in innovative practises and challenging the limitations of artistic possibilities. Thus, the act of creating visual representations serves as a means of

connecting artists from many centuries and serves as evidence of the timeless quality of human ingenuity.

2.5 The Use of Colour in Picture Making

The utilisation of colour(s) is essential in conveying a comprehensive visual impression to the observer (Ward, 2017). This particular perception elicits a response that encompasses an emotional component. The outcome of this reaction can vary, either positively or negatively, based on the specific application or applications of the designated hue or hues. The primary objective of the artist in this particular scenario should be to refrain from making choices that may elicit adverse emotional responses (Mahnke, 2014). In addition to other design components, the utilisation of colour significantly influences the perception of visual composition. The perception of colour in picture creating not only evokes mood associations and subjective and objective sensations, but also plays a significant role in influencing the estimation of volume, weight, and temperature. Regrettably, the consideration of colour is often neglected or given little attention until a later stage in the design process. Consequently, the visual representation fails to convey the desired impact or falls short of the planned level of impressiveness (Turkel, 2017). The accurate use and implementation of colour in the process of image creation are crucial for achieving the intended impact and ensuring the necessary psychological and physiological satisfaction for the viewers. The manipulation of the atmosphere within a given space can be employed to align it with its intended function. According to Stones (2013), the extent to which mood is established is contingent upon the specific utilisation of colours.

2.5.1 The Use of Colour by Visual Arts Students

The utilisation of colour in the creation of visual imagery is a vital component in the field of visual arts, serving as a pivotal factor in the conveyance and articulation of concepts, sentiments, and narratives. Visual arts students, encompassing several disciplines such as

painting, illustration, photography, and design, actively utilise colour as a potent instrument within their creative endeavours. The role of colour extends beyond its superficial presence within a visual composition, as it possesses the capacity to function as a distinct kind of communication. Visual arts students possess knowledge on the symbolic, emotional, and psychological connotations associated with colours. Colour is employed as a means of communicating distinct meanings and eliciting various emotional responses in the observer. Warm colours such as red and orange frequently elicit emotions associated with passion and energy, whilst cool colours like blue and green have the ability to induce a sensation of tranquilly and peace. Visual arts students utilise colour associations to construct the mood and tone of their artwork (Arya et al., 2021).

In addition to effectively communicating emotions, colour serves as a potent instrument for storytelling and narrative. Colour is employed by visual arts students to establish distinctions among characters or objects within their compositions, so generating a visual hierarchy that directs the viewer's gaze. As exemplified in a comic book image, the strategic application of vibrant and contrasting hues serves to visually distinguish the protagonist from the surrounding backdrop, so accentuating their significance within the narrative. Likewise, within the realm of painting, nuanced variations in colour have the capacity to imply the temporal progression or alterations in the surroundings, so augmenting the narrative dimension of the artwork. Additionally, colour holds considerable importance in the realm of visual composition and design. Students studying visual arts are educated on the fundamental concepts of colour theory, which encompass many colour schemes including complimentary, analogous, and triadic arrangements. The artist's decision-making process in colour selection for their artwork is guided by these concepts. An illustration of this concept can be observed in the phenomenon of complementary colours, wherein hues positioned directly opposite each other on the colour wheel (such as

red and green) generate a pronounced visual contrast (Roberts, 2022). Consequently, these contrasting colour pairs can be effectively employed to direct focus towards particular parts within a given composition. Conversely, comparable colours, which are contiguous on the colour wheel (such as blue, green, and teal), yield a harmonic and soothing impact, apt for expressing coherence or serenity within a composition.

In addition to their artistic endeavours, students in the field of visual arts also engage in the examination and application of colour harmony, a concept that entails the skilful manipulation and arrangement of colours to achieve an aesthetically attractive composition. The researchers engage in the exploration of colour harmonies in order to generate visually compelling compositions that effectively captivate the viewer's attention and sustain their interest. For instance, artists may employ a dominating colour in conjunction with accent colours to establish a focus point or employ a restricted colour palette to attain a harmonious and cohesive aesthetic in their artistic creations (Booth, 2015).

Moreover, the utilisation of colour holds practical significance within the realm of visual arts. Students are instructed in the acquisition of knowledge pertaining to colour mixing techniques, encompassing both the physical act of blending paint on a palette and the manipulation of colour settings within digital painting software. Acquiring this technical expertise is essential in order to attain the exact hues, tints, and tones that artists anticipate for their artistic creations. Visual arts students possess a comprehensive understanding of the significance of colour constancy in their creative endeavours, particularly when engaging in a series of artworks or projects. They diligently strive to maintain a harmonious and unified colour palette across their body of work, thereby reinforcing their artistic vision and purpose. The role of colour is of utmost importance in the domain of graphic design. Colour is a fundamental tool employed by design-focused visual arts

students to develop impactful branding and marketing products. It is widely recognised that the selection of colours has a profound influence on a brand's identity and communication strategies (Salisbury & Styles, 2020). As an illustration, a fast-food establishment could employ vivid and striking hues to communicate a sense of enthusiasm and dynamism, whilst a high-end business might choose a more restrained and refined range of colours to generate an impression of refinement and exclusivity.

Visual arts students possess knowledge on the cultural and psychological factors that impact the perception of colour. The interpretation of colours can vary across different cultures; hence it is important for students to take cultural contexts into account while producing artwork intended for varied audiences. Moreover, it is acknowledged that individual psychology plays a significant role in shaping individuals' perception and interpretation of colours. For instance, a specific hue has the potential to elicit favourable recollections or sentiments in an individual, while simultaneously invoking adverse reactions in another individual. Visual arts students consider these aspects in order to ensure that their utilisation of colour evokes a strong response from their intended viewership. Within the domain of photography, students specialising in visual arts employ colour as a means of expressing a diverse array of emotions and creating various atmospheres. The researchers investigate the impact of both natural and artificial lighting on colour perception and employ post-processing methods to enhance or modify colours in their photographic compositions (Wells, 2021). The utilisation of colour has the potential to convert an ordinary landscape into a vibrant and visually captivating composition. In the realm of visual arts, students engaged in the field of filmmaking also engage in the practise of colour grading. This technique is employed to establish unique and discernible visual aesthetics within their films or videos.

2.6 The Factors Affecting the Colour Decisions in Picture Making

There is a prevailing belief that variations in colour acuity among individuals can be attributed to a combination of psychological and physiological factors. Age and environment are factors that contribute to variations in visual perception and insight. These factors indicate that colour preference should be determined by both super-cultural and biological factors when considering a general hierarchy of colour preferences. This assertion is supported by previous literature, as established by Sakamoto in 2014. According to Sakamoto (2014), it has been observed that several characteristics, including but not limited to sex, ethnicity, geographical location, age, personality, and level of education, exert a notable influence on individuals' colour preferences.

The colour preference of an individual typically undergoes transformation as they progress through different stages of life. According to scholarly literature, it has been observed that individuals tend to exhibit a preference for colours such as yellow and red throughout their early years, whereas as they progress through the ageing process, there is a growing inclination towards colours such as blue or green (Birren, 2016). According to Garth et al. (2011), the influence of schooling on colour preferences has been observed, despite the initial tendency of infants to exhibit similar colour preferences regardless of their surroundings. There is ongoing scholarly debate over the origins of human response to colour, with some arguing for an innate basis while others propose a taught component. Additionally, researchers deliberate on the potential association between colour perception and meaning, as well as the potential variation in colour preferences across different cultures (Sable & Akcay, 2010). Furthermore, it is postulated that the perception of colour is contingent upon either a geographical or cultural determinant. When considering meaning, it is important to take into account both natural human preferences and environmental factors, such as schooling.

There exist certain fundamental norms and concerns that necessitate attention. It is imperative to elucidate the importance of incorporating psychological and physiological considerations into the design process to promote user wellbeing, even if it means discarding personal preferences in certain instances (Palmer & Forson, 2018). The need to maintain a delicate equilibrium between unity and complexity, while still ensuring a reasonable range of colour diversity, is of utmost importance. Visual ergonomics are contingent upon the selection of colours and the level of contrast employed. According to Mahnke (1996), it is necessary to fulfil the required mood or atmosphere by selecting colours based on their psychological content as specified in the requirements.

Emotional Expression:

One of the primary determinants influencing colour choices in the realm of visual art is the intention to effectively communicate and evoke emotional responses. Visual art serves as a potent medium via which individuals can effectively convey emotions that may seem challenging to articulate verbally (Hammond et al., 2021). Adolescent individuals enrolled in secondary education, akin to practitioners of artistic expression, frequently employ the medium of colour as a means to convey their internal emotional states. For example, the utilisation of warm hues such as red and orange can be employed to portray emotions of passion and intensity, whereas cooler shades like blue and green may be selected to communicate a sense of tranquillity and tranquilly. The colour selections made by artists during the process of creation can be strongly influenced by their emotional condition (Clark & Kemp, 2015).

Throughout history, art has consistently served as a potent means for individuals to convey their feelings across a range of diverse artistic mediums. The canvas provides a medium through which individuals can express their internal emotions, encompassing a range of affective states such as happiness, sorrow, frustration, or longing (Austin, 2017). When

students commence the artistic process of creating visual representations, they frequently tap into their emotional reserves in order to imbue vitality into their artwork. Colours, being one of the primary components of painting, serve as a medium through which these feelings are conveyed onto the canvas (Obeng & Acheampong, 2015). The impact of emotional experiences on colour choices is seen in all facets of visual composition. Primarily, it influences the selection of a colour palette. For example, those who have recently encountered a phase of euphoria or joy may have a tendency to go for vibrant and lively hues such as yellow, orange, or pink. On the other hand, a student who is experiencing melancholy emotions may choose to utilise more muted and sombre colour palettes, such as various colours of blue or grey (Hayes, 2015). The inherent link between emotions and colour influences the overarching mood and tone of the artwork. In addition, it is worth noting that emotional experiences have a significant impact on the intensity and saturation of hues (Walsh, 2019). When students have a heightened sense of enthusiasm or fervour for their subject matter, they may opt to employ vibrant and striking colours as a means to effectively communicate the intensity of their emotions (Lee & Young, 2020). Conversely, restrained emotions may result in subdued and desaturated hues, so evoking a feeling of serenity or contemplation within the artistic composition.

Emotional experiences also have an impact on colour temperature. Warm hues such as reds, oranges, and yellows have a tendency to elicit emotions associated with warmth, passion, and vitality. When students aim to express a feeling of liveliness or affection in their work, they may choose to use these colours (Xi et al., 2018). In contrast, cool hues such as blues and greens are frequently linked to feelings of tranquilly, tranquilly, and self-reflection. These options may be used by students who desire to express a feeling of serenity or melancholy in their artistic creations.

Furthermore, it is worth noting that particular emotions have the potential to elicit distinct colour preferences. As an example, the hue red is frequently linked to emotions of affection and hostility. Students who are immersed in the complexities of romantic relationships may choose to integrate the colour red as a symbolic representation of their devotion. Conversely, individuals grappling with feelings of rage may employ the colour red as a means to express their displeasure (Chong et al., 2020). In a similar vein, the colour green is frequently linked to notions of growth and envy (Cutter, 2021). Individuals who are undergoing personal development or rejuvenation may be inclined to favour the colour green, whilst those who are struggling with sentiments of envy may employ it as a means of articulating their emotions. The choosing of complimentary colours is also influenced by emotional experiences.

According to Graham and Stones (2018) complementary colours are frequently employed by artists to generate visual contrast and enhance the prominence of specific parts within a composition. When students seek to accentuate a specific mood or subject matter in their artwork, they may deliberately opt for complementary colours that amplify the visual impression. The intentional utilisation of colour contrast has the potential to heighten the emotional impact of the artwork. Additionally, it is worth noting that emotional events have a significant impact on the way individuals see colours. When pupils experience a pleasant emotional state, they may have an enhanced perception of colours, perceiving them as more brilliant and saturated (Freeman, 2018). In contrast, the experience of unpleasant emotions might result in a diminished perception of colours, causing them to appear lacklustre and less vibrant. The subjective nature of colour perception underscores the significant relationship between emotions and hue selection in the creation of visual art (St Clair, 2016).

The relationship between emotion and art is influenced by the field of psychology, particularly the study of colour. Several hues are universally associated with specific emotions. As an example, the colour blue is frequently connected with feelings of tranquilly and sadness, whereas the colour red is commonly associated with sensations of exhilaration and fury (Anderson, 2016). The emotional experiences of students, as well as the sociological and cultural implications associated with colours, exert effect on them. The widespread knowledge of colour psychology can influence individuals' choices in colour, as they may want to utilise these commonly held associations in order to elicit particular emotional responses from their viewers (Barnes et al., 2020).

Finally, the act of creating visual representations can serve as a therapeutic tool for students in managing their emotional well-being. Participating in artistic endeavours such as painting or drawing can function as a means of emotional catharsis (Hayes, 2015). This activity enables students to articulate and analyse their feelings through non-verbal and symbolic means. The process of colour selection serves as a mechanism for individuals to express themselves, enabling them to navigate their emotional terrain and discover comfort or catharsis via the act of creation.

Cultural Background:

The cultural heritage of visual arts students exerts a substantial influence on their colour choices, hence defining their artistic expressions. The interpretation of colours varies throughout different cultures, and this diversity of meanings can significantly impact an artist's creative output (Tapper and Cole, 2018). As an illustration, the colour red holds connotations of fortune and joy within Chinese cultural contexts, yet it may signify peril or affection within Western cultural contexts. Artists have the potential to intentionally or unintentionally integrate cultural colour associations into their artistic creations, influenced by their upbringing and exposure to a range of cultural viewpoints (Hayes, 2015).

According to the findings of Arthur et al. (2018), culture is a multifaceted construct comprising interconnected systems of collective ideas, customary practises, traditional rituals, and deeply ingrained principles that collectively influence individuals' cognitive processes and subjective understanding of their surroundings. The influence of cultural influences is inherently present in the artistic and design decisions made by pupils, which include the deliberate choice of colours in their visual compositions (Sam & King, 2017). The cultural background of individuals can exert influence on the decision-making process regarding colour choices in the creation of visual imagery, manifesting itself through several mechanisms (Lawson et al., 2016).

To begin with, it is important to acknowledge that individuals' emotional and psychological associations with colours are significantly influenced by their cultural background (Nixon & Aguado, 2019). Various cultures ascribe different interpretations to colours, resulting in a wide range of emotional reactions. When students hailing from diverse cultural backgrounds engage in the creation of visual art, they may employ the colour red in distinct manners, employing opposing techniques to elicit specific emotional responses or effectively communicate particular concepts (Muhammed, 2019). In addition, it is important to consider that cultural origins can significantly influence the significance attributed to different colours. Numerous cultures exhibit profound symbolisms that are intricately linked to particular colours. For example, the colour white is commonly linked to notions of purity and tranquilly within Western societies, yet certain Eastern traditions attribute it to grief and death. Students who take inspiration from various cultural influences may choose to include or exclude specific hues in their artwork, depending on the symbolic meanings they intend to communicate.

Furthermore, the aesthetics and tastes of individuals are influenced by their cultural backgrounds. The perception of visual appeal can exhibit significant variations across

different cultural contexts. Certain cultural groups may place a higher emphasis on the utilisation of vivid and vibrant hues, whereas others may exhibit a preference for more understated and muted shades (Ahmed & Yusif, 2022). The selection of colours in the creation of visual art by students is often impacted by their cultural aesthetic inclinations, resulting in a diverse array of hue choices. The impression of harmony and balance in colour combinations is influenced by an individual's cultural background. Certain civilizations exhibit established rules of colour harmony, shown by the utilisation of complementary hues as depicted in the colour wheel (Bestley & McNeil, 2022). Conversely, alternative cultures may possess distinct and divergent notions regarding the perception and significance of colour. The concept of balance is a fundamental aspect that is often discussed and analysed in various academic disciplines. The artistic expressions of students from many cultural origins may vary because to their different approaches to colour combinations, therefore creating a diverse and vibrant tapestry.

The influence of cultural background on colour decisions is further exemplified by the role of language. Certain languages possess distinct lexical categories for colours that are absent in other languages, resulting in divergent perceptions and descriptions of colours among individuals (Asamoah & Obeng, 2016). The language impact has the potential to influence the cognitive understanding and verbal expression of pupils while making decisions regarding colour selection in their artistic creations.

Artistic Style

Every artist gradually develops their own distinctive artistic style as they progress in their career. This artistic style comprises the techniques, subject matter, and colour palette that the artists favour. Adolescents enrolled in visual arts courses at the high school level are not exempt from this observation. Through the process of experimentation with diverse materials and techniques, individuals progressively cultivate a distinct artistic style that

deeply connects with their personal sensibilities. The individual's own style significantly impacts their selection of colours, since specific combinations of colours may emerge as distinctive features within their artistic creations.

Artistic Influences: Visual artists frequently get inspiration from the artistic creations of their peers. Adolescents enrolled in secondary education may often seek inspiration from renowned artists or their fellow students who have cultivated a unique artistic approach. The aforementioned influences have the potential to impact individuals' colour choices, as they may want to replicate the colour schemes and methodologies employed by artists whom they hold in high regard. The exposure to a diverse array of artistic inspirations has the potential to foster an eclectic and imaginative utilisation of colour.

Subject Matter: The subject matter of a piece of art also guides colour choices. High school students may find that specific subjects lend themselves to particular colour schemes. For example, a landscape painting may incorporate natural, earthy tones, while a surrealistic piece might employ vivid and unconventional colours to create a dreamlike atmosphere. The subject matter often dictates the artist's colour decisions to ensure that it resonates with the viewer in a coherent and meaningful way.

Artistic Intent: The comprehension of the underlying purpose of a work of art is essential in the interpretation of its selection of colours. Artists frequently possess a distinct message or narrative that they aim to communicate through their artistic creations. High school students studying visual arts exhibit no discernible variance. The conveyed message or emotional tone of a composition significantly influences the selection of the colour scheme. When artists intend to elicit feelings of nostalgia, they may choose to employ sepia tones, whilst a desire to emphasise haste or disorder may prompt the utilisation of contrasting, brilliant colours.

Personal Preferences:

An artist's colour choices are inherently influenced by their personal likes and tastes. Adolescents enrolled in secondary education may exhibit preferences for specific hues or combinations thereof to which they are naturally drawn. These preferences may stem from personal experiences or be based solely on aesthetic choices. The use of hues that evoke a personal connection for the artist frequently influences the composition of their artwork, hence influencing its overall aesthetic character (Bill et al., 2018). The selection of colour in picture-making for visual arts students is heavily influenced by personal tastes. The utilisation of colour in art is a potent instrument that possesses the ability to effectively communicate emotions, moods, and messages (Karim, 2015). Artists utilise their personal tastes, experiences, and perceptions as a means to carefully choose and manipulate colours, so producing aesthetically captivating and emotionally evocative artworks.

Emotional connection is a significant factor in the influence of personal preferences on colour selection. Each person possesses a distinct array of emotional connections to various colours. For instance, an individual who was raised in close proximity to the ocean may develop a profound inclination towards hues of blue, whilst another person might establish a connection between the colour red with emotions of love and passion. Visual arts students utilise their personal emotional connections as a basis for colour selection in their artworks. Artists select hues that evoke emotional responses and reflect their individual sentiments and lived encounters, so imbuing their creations with a profound sense of personal significance and genuineness (Dartey & Tagoe, 2016).

In addition, it is worth noting that personal preferences frequently undergo influence from cultural and societal elements. Diverse cultural backgrounds attribute distinct significances to colours, hence exerting an impact on an artist's selection of colour palette. In numerous Western cultures, the colour white is commonly linked to notions of purity and innocence

(Walker, 2020). Conversely, within certain Asian civilizations, white is often associated with the concepts of death and grief (Li et al.,2018). Visual arts students who are impacted by their cultural origins may choose to embrace or question these colour connections in their artwork, based on their individual preferences and artistic objectives.

Personal experiences can have a significant impact on the selection of colours. Artists frequently derive inspiration from their personal life encounters, and these encounters can significantly influence their selection of colours. As an illustration, a student specialising in visual arts who has extensively immersed themselves in natural environments may have a predilection for earthy hues, such as various shades of green and brown (Kennedy, 2016). On the other hand, individuals who have resided in a highly populated urban setting may exhibit a preference for vivid and striking hues in order to encapsulate the dynamism and disorderliness characteristic of urban existence. Psychological considerations can also influence personal preferences. Certain artists are inherently attracted to specific colours as a result of the psychological effects they produce. Warm hues such as red and orange possess the capacity to elicit sensations of heightened enthusiasm and vigour, whereas cool tones like blue and green have the ability to instil a state of serenity and tranquilly. Students studying visual arts who possess particular psychological tendencies may be drawn to colours that correspond to their intended emotional or conceptual objectives.

Moreover, individual choices may be shaped by artistic influences and sources of inspiration. Artistic practitioners frequently seek inspiration from the creations of their peers, exhibiting a proclivity towards specific colour schemes employed by esteemed painters or influential artistic movements (Huth et al.,2017). An instance of this can be observed in the case of a student who holds a deep admiration for the Impressionist painters. The student may find inspiration in the manner in which these artists employ vivid and speckled hues to effectively depict the interplay of light and atmosphere

(Wagner, 2019). Artistic influences have the capacity to form an artist's individual colour preferences and provide guidance for their creative decision-making.

Furthermore, individual inclinations may be influenced by the intended communication or conceptual framework of the artwork. Visual arts students frequently possess a distinct conceptualization or communication they aim to express via their artistic endeavours. Artists carefully choose colours that are in harmony with their artistic vision and effectively convey their intended message (Park, 2016). As an illustration, an artist with the intention of eliciting a sentiment of longing for the past may deliberately select subdued, sepia hues to suggest a vintage ambiance. Conversely, an artist concerned with ecological matters may consciously decide to employ a range of naturalistic greens and browns to symbolically represent the natural world.

In addition, the selection of colours in picture-making can be influenced by the medium and technique employed. Various artistic mediums, such as oil paint, watercolour, and digital painting, provide distinct levels of colour variety and control. Certain pupils may possess individual preferences for particular mediums, which might subsequently influence their selection of colours (Mustapha, 2020). Watercolour artists frequently employ translucent layers and mixing processes, so generating distinctive colour effects. On the other hand, digital artists possess a diverse array of colour selections and tools, affording them meticulous command over the process of colour choosing.

It is important to acknowledge that individual colour tastes are not fixed, but rather subject to change and development throughout time. As visual arts students accumulate further experience and are exposed to a wider range of techniques and styles, it is likely that their preferences may undergo a transformation (Jha et al., 2019). Individuals may exhibit an increased inclination towards exploring more daring colour selections or cultivating a heightened discernment for the nuances inherent in colour theory.

Technical Skill Level

The colour choices of high school visual arts students might be influenced by their level of technical proficiency. Students who possess a higher level of proficiency in colour theory and the art of colour mixing may exhibit a greater sense of self-assurance when it comes to exploring and employing a broader spectrum of colours and artistic approaches (Agarwal, 2016). Conversely, individuals with less expertise may opt for a narrower range of colours or depend on established and tested hue combinations until they acquire enhanced ability (Merson, 2020).

As visual arts students advance in their studies and refine their technical abilities, they exhibit a greater level of intentionality in their selection of colours. The individuals commence their comprehension of the intricacies of colour theory, acquiring the knowledge of blending and harmonising hues in order to attain desired visual outcomes (Hall, 2021). By enhancing their mastery of brushes, pigments, and digital tools, artists are able to implement their creative concepts with enhanced precision (Olise et al., 2019). The possession of technical skills enables individuals to select colours that are in accordance with their artistic intentions. As an illustration, a student with adeptness in the art of painting could employ a nuanced spectrum of blues and purples to encapsulate the serenity inherent in a quiet environment, skilfully merging these hues in a seamless manner to effectively communicate a profound feeling of spatial dimension and atmospheric ambiance. The proficiency in technical skills contributes to the artist's capacity to effectively convey their artistic vision through the creation of a harmonious colour palette.

Moreover, as artists progress in their craft, they acquire a more profound comprehension of colour psychology and the affective influence of various hues. The possession of technical skills empowers individuals to effectively utilise colour in order to elicit particular emotions or atmospheres within their audience (Yates, 2019). Proficient artists have the

ability to employ warm and brilliant hues in order to effectively communicate a sense of energy and excitement, yet colder tones have the potential to elicit feelings of tranquilly and reflection (Blomstedt, 2020). The selection of colours assumes a strategic role within the artist's repertoire, and their adeptness in implementing these selections guarantees the successful transmission of the intended message.

In the contemporary era characterised by digital advancements, the realm of visual arts has witnessed a notable transformation, wherein technical proficiency encompasses more than conventional artistic instruments. Proficiency in digital platforms and software tools is a must for visual arts students in order to effectively produce their artistic creations. The utilisation of digital abilities also has a significant influence on colour selection, since artists are able to modify colours with a high level of accuracy and efficiency using digital tools (. Advanced techniques, such as colour grading, colour correction, and digital painting, provide artists with expanded opportunities for creative expression (Bestley & McNeil, 2022). Artists who possess a strong command of digital tools are able to engage in more uninhibited colour experimentation, as they are aware of the ease with which alterations can be made. The ability to be flexible enables individuals to engage in creative experimentation and venture into non-traditional colour schemes.

On the other hand, artists who possess minimal technical proficiency in digital media may encounter limitations in their selection of colours. Users may potentially depend on default settings or encounter difficulties in attaining the required colour effects, so resulting in feelings of frustration and imposing constraints on their artistic expression (Siniscalco & Rossi, 2017). Hence, the proficiency in technical abilities pertaining to both conventional and digital mediums play a crucial role in shaping the capability of a visual artist to effectively choose and manipulate colours. As visual arts practitioners progress in their artistic development, they frequently cultivate a distinctive artistic style that is

distinguished by their individualistic selection of colours (Endo, 2020). These choices are crucial in shaping their aesthetic character. The stability and elegance of this style are heavily influenced by technical proficiency. Artistic individuals that demonstrate exceptional proficiency in their selected artistic medium possess the ability to transcend traditional colour usage, engaging in innovative exploration of unexpected combinations and techniques that distinguish them from their contemporaries (Nixon & Aguado, 2019). The individual's high level of expertise enables them to fearlessly venture into novel realms of artistic expression, resulting in the creation of original and captivating artworks.

On the other hand, artists who encounter difficulties in acquiring technical proficiency may encounter constraints in their artistic progression. The colour selections of individuals may exhibit a tendency towards repetition and predictability, as they like to adhere to those that they can proficiently accomplish (de Roon, 2018). This constraint has the potential to impede the artistic development of individuals and restrict their ability to completely manifest their creative aspirations. Hence, the proficiency in technical skills not only exerts an influence on the selection of colours but also plays a significant role in shaping an artist's total growth and capacity for artistic ingenuity (Asano et al., 2016).

Within the realm of visual arts education, instructors frequently assume a crucial role in the development of students' technical proficiencies and selection of colour palettes. An adept instructor possesses the ability to facilitate pupils' understanding of the complexities inherent in colour theory, the blending of colours, and the various techniques employed in their application (van den Berg et al., 2020). The individuals have the capacity to offer constructive criticism, so assisting students in enhancing their colour selections and implementation. Furthermore, the exposure to other artistic styles and techniques has the potential to expand pupils' perspectives, fostering a sense of inspiration that motivates them to explore various colour palettes and approaches.

External Feedback

The colour choices made by high school visual arts students might be influenced by feedback received from teachers, peers, and art reviews. Providing constructive feedback or positive reinforcement regarding specific colour choices might assist pupils in honing their artistic technique (Mills & Yusufu, 2016). The inclination to seek favourable comments or the drive to enhance one's performance through constructive criticism might result in modifications in colour selection (Cutter, 2021). The influence of external input on colour selection in picture-making by visual arts students is of paramount importance. The process of choosing colours in artwork is a highly individual and subjective endeavour, however it is also significantly shaped by external influences such as critiques, cultural background, and the need to effectively convey a message (King et al., 2019)

The process of artistic growth is an ongoing endeavour, and individuals studying visual arts frequently seek input from multiple outlets in order to further their abilities and artistic self-expression. The input of instructors and mentors is likely to have the most immediate and direct impact on the selection of colours. Within the realm of art education, teachers assume a crucial and influential position in providing guidance to students regarding their artistic decisions. The instructors offer constructive criticism and evaluation pertaining to colour theory, harmony, and composition, so facilitating students' comprehension of the technical elements involved in the process of colour choosing (Clark & Kemp, 2015). For instance, they might provide guidance to pupils regarding the utilisation of complementary colours to establish visual contrast or the application of analogous colours to achieve a sense of harmony. This feedback assists students in making well-informed decisions regarding the selection of colours in their artwork, ensuring that their choices are in accordance with recognised principles of colour theory.

Peer feedback serves as a significant external influence that impacts colour selections. Within an educational environment, namely in a classroom or studio setting, it is common for students pursuing visual arts to engage in collaborative efforts and engage in critical analysis of one another's artistic creations (Hayes, 2015). Peer feedback provides a novel vantage point, enabling students to perceive their artwork from alternative perspectives. Peers can offer valuable perspectives on the emotional impact and communicative potential of an artist's colour choices, so assisting in the refinement of their intended visual tales (Graham, 2019). In addition, the presence of diverse opinions among peers can expose students to novel colour palettes and combinations that they may not have previously contemplated independently. By engaging in constructive critique and engaging in discourse, students have the opportunity to enhance their comprehension of the influence of colour and explore many options for experimentation.

In addition to formal education settings, the art community and exhibitions play a significant role in providing external feedback that influences the process of colour choosing. Art galleries and exhibitions provide as venues for students to present their artistic creations to a broader spectrum of individuals, encompassing fellow artists, critics, and aficionados of art (Mohammed, 2019). The reception of their artwork within these contexts plays a crucial role in evaluating the efficacy of their colour selections in conveying their intended messages. Receiving positive comments from the art community has the potential to enhance a student's self-assurance regarding their colour choices, whereas the provision of constructive criticism can prompt them to reassess and make necessary modifications to their artistic methodology (Jung et al., 2020).

The influence of the broader cultural context is significant in determining colour choices in the creation of visual imagery, in addition to the feedback received from individuals. The utilisation of colour by artists to communicate meaning and establish a connection with

their audience is influenced by cultural conventions, traditions, and contemporary trends. Visual arts students are provided with a comprehensive array of cultural references as part of their educational curriculum and exposure to other art genres. This exposure facilitates their comprehension of the cultural importance that colour might carry (Daddow, 2021). For instance, various cultures may attribute distinct feelings or notions to different colours. Artistic practitioners frequently use cultural allusions within their artistic endeavours as a means to effectively communicate particular themes or establish a more profound connection with their audience.

The influence of external feedback on colour choosing is also applicable within the context of digital art and social media. In the contemporary era characterised by the proliferation of digital technology and social media platforms, artists are presented with an unprecedented array of chances to disseminate their artistic creations to a worldwide audience (Booth, 2015). Online platforms provide artists a distinct opportunity to obtain feedback from a broad and frequently unidentified community of spectators. The quantifiable metrics of likes, comments, and shares on social media platforms can serve as expeditious indicators of the efficacy of an artist's colour selections. Artists may discover that some colour palettes elicit a stronger response from their online audience, prompting them to investigate analogous options in subsequent artistic endeavours.

Furthermore, the increasing prominence of digital instruments in the realm of art creation has significantly broadened the scope of possibilities for artists to engage in colour exploration. Digital software enables visual arts students to obtain real-time feedback on their colour choices, facilitating prompt modifications. The provision of rapid feedback enables students to engage in the exploration of various colour combinations, hence enhancing the dynamism and adaptability of the learning process (Shin, 2017). In conjunction with technical and cultural factors, the emotional influence of colour holds

considerable weight in the process of artistic decision-making. Visual arts students frequently want to elicit particular feelings or responses from their audience through their artistic creations. External feedback might assist individuals in assessing the effectiveness of their selected colours in attaining this objective. For instance, in the context of a student's artistic endeavour, if their objective is to convey a feeling of tranquilly and peacefulness through their painting, but they receive feedback indicating that the colours employed instead elicit a sense of tension or discomfort, they may opt to reassess their selection of colours in order to more effectively harmonise with their artistic aim (Winston, 2019).

Moreover, feedback has the potential to influence artists' interpretations of their individual artistic style and personal identity. As students advance in their artistic endeavours, they may receive criticism that underscores their distinctive utilisation of colour as a discerning characteristic of their artwork. This acknowledgment has the potential to bolster individuals' self-assurance in their selection of colours and motivate them to continue refining their own artistic approach. On the other hand, comments can serve as a catalyst for artists to delve into diverse colour palettes and artistic styles, thereby fostering artistic development and progression (McCrorie, Donnelly & McGlade, 2016).

Artistic Goals:

Visual arts are pursued by high school students with a range of artistic objectives. Certain individuals may have a desire to produce aesthetically appealing creations that demonstrate their proficiency in technical aspects, whilst others may place greater emphasis on pushing the limits of artistic norms and traditions. The colour decisions used by students can be significantly influenced by their goals. Some students may choose to use classic and harmonious palettes, while others may choose for bold and unique colour choices in order to attain their intended outcomes.

Artistic objectives comprise a broad spectrum of aspirations, spanning from individual self-expression to societal critique. Every artist has a unique perspective and intention that they aim to communicate via their artistic creations. The selection of colour is a crucial factor in attaining these objectives. The act of setting the mood, conveying emotions, and establishing a visual hierarchy within the composition is accomplished through it (Socrates, 2020).

The influence of creative ambitions on colour choosing is primarily manifested through the portrayal of emotions. The relationship between colour and emotions is intrinsically intertwined, and artists utilise this association to elicit particular emotional responses in their audience. For example, a student studying visual arts with the intention of producing a serene and tranquil landscape would choose to utilise a colour palette consisting of subdued blues and muted greens in order to elicit a feeling of tranquilly. On the other hand, an artist who aims to depict chaos and confusion may choose vibrant and contrasting hues in order to evoke a sense of disorder. Therefore, the selection of colour emerges as a potent instrument for artists to effectively convey their desired emotional resonance (Highmore, 2023). Moreover, the utilisation of colour to communicate narrative and symbolism is guided by artistic objectives. Numerous artists endeavour to narrate a tale or communicate a meaningful idea through their artistic creations. Colours can function as symbolic representations or metaphoric devices, so enhancing the overall narrative. As an illustration, a student specialising in visual arts who is investigating the issue of hope and regeneration can select for a dynamic and animated colour scheme, such as vivid yellows and invigorating greens, to represent the concepts of growth and optimism. On the other hand, an artist who explores themes of sadness and despair may choose to utilise a colour palette that is predominantly characterised by deep blacks and sombre greys. By

strategically selecting colours that match with their artistic objectives, students have the ability to augment the narrative intricacy of their creative endeavours.

Another crucial factor to take into account is the perception of the audience. Artists frequently consider a particular target audience during the creative process, strategically selecting colours that will effectively connect with and appeal to that audience (Booth, 2015). Visual arts students that desire to engage with a younger market may choose to employ vivid and captivating colours that resonate with a youthful aesthetic. Conversely, artists who aim to appeal to a more mature or reflective audience may choose for a restrained and refined colour scheme in order to foster a more profound connection with their viewers.

The choosing of colour in cultural and socioeconomic contexts is also influenced by artistic aspirations. Colour is a commonly employed tool by artists to provide commentary on or question prevailing social conventions, traditional practises, and historical occurrences. As an illustration, an artist who aims to explore the issue of gender inequality may employ the colours pink and blue, conventionally linked to femininity and masculinity respectively, in a subversive fashion to interrogate and challenge these prevailing notions. Moreover, artists have the ability to integrate colours that hold cultural importance in order to enhance the effectiveness of their message. Visual arts students can ensure that their selection of colour is in harmony with their artistic objectives and effectively connects with their target audience by demonstrating an awareness of the cultural and socioeconomic background.

Moreover, the selection of colour is influenced by creative objectives, which are determined by factors such as composition and visual impact. Artistic practitioners frequently possess a distinct artistic vision pertaining to the arrangement of their artwork, wherein colour has a pivotal part in the realisation of said vision (Yildirim, Cagatay & Ayalp, 2015). As an illustration, an artist with the objective of producing a harmonious and

balanced composition may opt to employ a complementary colour scheme, such as the combination of red and green, in order to establish visual equilibrium. In an artistic context, it is possible for an artist to utilise contrasting colours as a means of directing the viewer's focus towards specific parts or creating a central centre of interest within the artwork. The selection of colour, in this context, becomes a strategic function in directing the observer's attention and constructing a dynamic arrangement that corresponds to the objectives of the artist.

Furthermore, the selection of colour is also influenced by the media and technique employed in the process of creating visual images. Visual arts students frequently engage in the utilisation of a diverse range of materials, encompassing both conventional paint mediums and contemporary digital technologies. Every medium presents distinct opportunities and constraints in relation to colour. Oil paints, as an illustrative example, facilitate the creation of intricate and nuanced colour mixing and manipulation, whilst digital technologies provide a high level of accuracy and control in terms of colour selection and manipulation. In order to properly achieve their artistic objectives, artists are need to adapt their selection of colour to the specific media they are working with (Joice et al., 2022).

Furthermore, it should be noted that artistic objectives are not fixed entities, but rather have the potential to undergo transformation and development during the course of an artist's professional trajectory. As visual arts students' progress in their artistic development and accumulate a greater depth of experience, their objectives may undergo a transformation, resulting in a divergence in their selection of colours. For example, a student who first prioritised self-expression through the use of vivid and daring colours may afterwards shift their artistic objectives towards the exploration of delicacy and nuance as their creative aspirations progress. The evolution of artistic objectives will inevitably result in

modifications in colour selection, which will serve as a manifestation of the artist's maturation and progression.

2.7 Colour Symbolic Effects in Picture Making

Colours carry deep meanings with them in every culture. Western, Far Eastern, Middle Eastern, Indian, and African cultures have stark differences in the symbolism of colours within their cultures. For instance, in some cultures, white represents innocence, but in others, it can represent death. The symbolism of colours often stems from religious, spiritual, social, or historical events. In this section, I present the symbolic meanings of colours in cultures across certain parts of the world.

Colour symbolism in picture making involves using colours to represent a deeper meaning. Painters may use different colours to draw the reader's attention to a symbolic object, communicate something about a character, or emphasize a theme (Chong, 2012). Some painters may even use a colour palette to convey a mood or underscore themes of their work; for instance, pastel colours may imply dreaminess, while darker shades may symbolize mystery or foreboding (Mohammed, 2014). Human society and many different cultures imbue specific colours with a set of finite meanings, making colour symbolism especially effective as a recognizable device in picture making (Gibbins, 2018).

According to Amenuke et al. (2009), colour symbolism is largely based on cultural, mythical, historical, religious, political, and linguistic associations. The symbolic meanings of colour expose wide-ranging meanings in cultures including positive and negative meanings. There are contradictory positions in the colour literature as to whether the cultural meanings of colours can be categorized because meanings or symbolisms of colours can change over a period of time and also depending on the context (Gage, 2011). For instance, black is a colour of mourning in many countries, though a black book cover or a black poster is not always associated with death. Again, brides in China traditionally

wear red dresses, but many brides in the same country have started to wear white in recent times. Sable and Akcay (2010) matched symbolism and meaning related to colour from cultural marketing viewpoint. They noted for instance that white signifies purification in grief in East Asia, but symbolises happiness in Australia or the United States. Red denotes sadness in Nigeria, Ghana or Germany, but it represents happiness in China and Denmark. Therefore, the colour symbolism across cultures is not fixed but always changing according to context and time.

In indigenous culture of Ghana, how beautiful a colour is, depends on its visual features and social sense (Addai, 2010). The connotations of colour are not premised on scientific theories but on “philosophical, psychological and spiritual meanings related to life. It is not possible to generalise the meaning of colour to all the many ethnic groups in Ghana because of the cultural differences between the ethnic groups (Kieffer, 2015). However, some colours have common meanings among the ethnic groups. Some of the common colours with similar meanings are yellow, red, blue, green, brown, grey, black and white (Adom, 2014). It is important to state that each colour is related to the colour of a natural object and have their peculiar meanings and uses in Ghana. The symbolism of the colour is derived from its relationship to life.

Colour may generate another level of meaning in the mind (Adom, 2014). This symbolism arises from cultural and contemporary contexts. As such, it is not universal and may be unrelated to its natural associations. For example, green’s associations with nature communicate growth, fruitfulness, freshness and ecology. On the other hand, green may also be symbolic of good luck, seasickness, money and greed — all of which have nothing to do with green plants. These associations arise from a complex assortment of sources.

Furthermore, colour may have both positive and negative symbolism (Smith, 2018). For example, although blue is the beautiful colour of the sky on a sunny day, it can be symbolic

of sadness or stability. Idiomatic American English reflects these traits in phrases such as “singing the blues” and “blue chip stocks.” Red is another example of dual symbolism. On one hand, as the colour of fire and blood, it is an energizing, aggressive and bold colour. In direct contrast, red is used for “STOP” signs throughout the world today. Below is a table showing the symbolism of colours in the Ghanaian Context

Table 1: Symbolisms and functions of various colours in Ghana (adopted from Amenuke et al., 1991)

Colour	Symbolism	Function
Yellow	Royalty; continuous life; warmth and controlled; rule of God or King; prosperity of individuals or State.	King’s ornaments; outdoorings; puberty; marriage
Red	Close blood relations, war; anger, aggression, violence, calamity, riot, love, death, danger and force	Funerals, puberty initiation, a sign of warning or danger
Blue	Early dawn, love, female tenderness; serene appearance, rule of a queen	Love charms, puberty and marriage ceremony
Green	Newness, growth, vitality and fertility	Outdoorings and child ceremonies; puberty; hunting ceremonies; used at funerals to keep the mouth shut; purification of spots for sacred ceremonies; used to pull off spirits of the dead from spots of accidents; used to sprinkle medicinal water during purification ceremonies
Grey	Pity, shame, blame, degradation	Strengthen weak foundations houses
Brown	Decay and rottenness,	Hunting and farming dresses, mourning the dead
Black	Vice, sadness; strength, something that belong to the past; old age and history	Used to mark relics or objects of history; for funeral, e.g., blackening of stools; used to make charms against wild animals and evil forces; for body painting
White	Joy; victory; happiness; purity; virginity; faultlessness of God	All joyous, occasions, e.g., birth, outdoorings, puberty, marriage ceremonies; victory at war or from any form of struggle; funeral for old people (celebrate life) and victims of accidental death (control tears)

Source: Field Data (2023)

The colour red is commonly associated with attributes such as energy, passion, action, ambition, and resolve. Additionally, it is worth noting that red is commonly associated with emotions such as rage and sexual passion. The colour **orange** is often associated with social communication and positivity. **Yellow**, in the realm of colour psychology, is associated with the faculties of the mind and intellect, yet it also has negative connotations such as pessimism and superficiality. The given subject matter exhibits a positive and buoyant disposition. Nevertheless, it can also imply a lack of tolerance, a tendency to criticise, and a display of cowardly behaviour. The colour **green** is commonly associated with the concepts of equilibrium and development. The term "it" possesses a dual connotation, encompassing both the positive attribute of self-reliance and the negative aspect of possessiveness, alongside various other interpretations. The colour **blue** is often associated with feelings of trust and calm. This can imply traits such as loyalty, honesty, conservatism, and frigidity. **Indigo** is commonly associated with the concept of intuition (Kontukoski et al., 2016). The significance of colours encompasses notions of idealism and structure, alongside connotations of ritualistic practises and compulsive tendencies. The colour **purple** can be regarded as representative of the imaginative faculty. The expression of creativity and individuality can manifest in several forms, ranging from innovative and unique to lacking maturity and practicality. The colour **turquoise** is often associated with the concepts of communication and mental clarity. Moreover, it may also be deemed impractical and idealistic. The colour **pink** symbolises the concepts of unconditional love and nurture. The colour pink can also be associated with immaturity, frivolity, and femininity. **Magenta** is a colour that is widely associated with the concept of universal harmony and emotional equilibrium. This ideology combines elements of spirituality and practicality, promoting the cultivation of common sense and a well-rounded perspective on life. The colour **brown** is characterised by its amiable yet earnest nature, evoking a sense

of practicality (Pakmor & Naiman, 2018). It is commonly associated with feelings of safety, safeguarding, cosiness, and affluence. From a colour psychology standpoint, **grey** can be seen as a symbol of compromise due to its position between black and white, representing a transition between two non-colours. The characteristic in question exhibits a lack of emotional involvement and a sense of detachment, maybe leading to a tendency towards indecisiveness. Silver possesses a feminine energy, exhibiting a connection to lunar influences and the cyclical patterns of tidal movements. This metal is characterised by its fluidity, emotional nature, sensitivity, and enigmatic qualities. The colour **gold** is commonly associated with notions of success, achievement, and triumph. The colour psychology of gold is often associated with concepts like as abundance, prosperity, luxury, quality, prestige, sophistication, value, and elegance. It indicates notions of opulence, material richness, and excess. **White** is a colour that embodies utmost completeness and purity, representing perfection in its purest form. White is commonly associated with concepts such as purity, innocence, wholeness, and completion. The colour **black** is often associated with concepts such as secrecy, concealment, and the unknown, so evoking a sense of mystique (Nelson et al., 2016). The act of concealing one's emotions and thoughts from external observation is a common phenomenon, resulting in the internalisation of such experiences.

2.8 Level of Understanding of Colour Combination in Picture Making

The comprehension of colour combination in the creation of visual art is a crucial element that has a substantial influence on the overall effect and emotional resonance of an artwork. In order to foster artistic development, it is imperative for students in the field of visual arts to cultivate a profound understanding of colour theory and its practical implementation. Colour is not solely a visual component; rather, it functions as a distinct form of communication, possessing the ability to express emotions, atmospheres, and stories

(February, 2019). At the foundational level, students acquire knowledge regarding the colour wheel, which encompasses primary colours (red, blue, and yellow), secondary colours (green, orange, and purple), and tertiary colours (comprising combinations of primary and secondary colours). The acquisition of fundamental knowledge serves as the cornerstone upon which students construct their comprehension of colour combinations. As students advance in their studies, they explore several concepts such as hue, saturation, and brightness, which have a significant role in shaping the perception of colours within diverse circumstances. The study of colour psychology holds significant importance within the educational curriculum of visual arts students. Various colours elicit distinct emotions and sensations. For example, warm hues such as reds, oranges, and yellows are frequently linked to attributes such as vitality, fervour, and joy. On the other hand, cool colours, such as blues and greens, are associated with feelings of tranquilly, tranquilly, and sorrow. The comprehension of these psychological impacts empowers students to make deliberate decisions regarding the hues employed in their artistic creations, so enabling them to craft a certain ambiance and evoke intended emotional reactions from the observers (Bell, 2017).

In addition, students acquire knowledge of colour harmonies, which refer to visually attractive arrangements of colours. A prevalent form of harmony observed in the realm of colour theory is that of complimentary colours, which are situated directly opposite one another on the colour wheel. Examples of such complementary pairs are red and green, as well as blue and orange. When complementary colours are juxtaposed, they generate a pronounced contrast and amplify the intensity of one another. Analogous colours, characterised by their adjacency on the colour wheel, such as blue, green, and teal, have the ability to evoke a sense of harmony and tranquilly. Students engage in the exploration of triadic and split-complementary harmonies, which involve increasingly intricate

combinations. This endeavour serves to enhance their capacity to generate visually captivating and harmoniously balanced works (Waghmare et al., 2020).

Gaining knowledge about the cultural and historical implications of colours constitutes an additional facet of a visual arts student's educational experience. Colours hold varying significance across different cultures. In Western societies, the colour white is frequently linked to notions of purity and innocence, yet in certain Eastern civilizations, it is emblematic of grief. Having an understanding of these cultural nuances expands the perspectives of students, fostering the integration of diverse cultural settings into their artistic creations and facilitating successful communication of ideas. As students advance in their academic pursuits, they engage in the exploration of diverse artistic mediums, including painting, digital art, and mixed media. Each of these mediums has distinct possibilities for the investigation of colour combinations. Within the realm of painting, students acquire knowledge and skills pertaining to various techniques such as colour mixing, layering, and blending. These techniques enable them to effectively produce a diverse range of colours and textures in their artistic creations. Digital art offers pupils the opportunity to manipulate colours with precision, granting them the flexibility to explore intricate palettes and engage in experimentation with novel combinations. The utilisation of mixed media art enables students to integrate a variety of materials, facilitating the exploration of novel colour applications, hence nurturing creativity and challenging conventional colour theories (Shrivastava, 2022).

In addition to academic knowledge, the practical application and experimentation of colour combinations play a crucial role in enhancing a visual arts student's comprehension. By engaging in practical projects and completing tasks, students acquire knowledge about the interplay of colours, their mutual effect, and their ability to alter the overall composition. The researchers investigate the influence of various lighting conditions on colour

perception, examining the effects of natural light, artificial light, and shadows on the interpretation of colours inside an artwork. Engaging in practical experience fosters the refinement of individuals' observational skills and augments their proficiency in employing colours proficiently within their artistic endeavours (Howard, 2019). The constructive evaluations and feedback received from both peers and instructors significantly contribute to the growth and progress of visual arts students. Participating in dialogues pertaining to colour selection, examining accomplished artworks, and comprehending the cognitive processes underlying colour harmonisation in esteemed masterpieces yield significant perspectives. Constructive criticism plays a crucial role in assisting students in refining their colour palettes, thereby fostering an environment that encourages them to engage in further experimentation and push the boundaries of their creativity.

The term "colour combination" also known as colour scheme, pertains to the combination of hues utilised in several design fields, including fine art, interior design, and graphic design (Van Leeuwen, 2013). Each colour scheme is comprised of one or more of the twelve colours that are present on the colour wheel. The generation of distinct colour palettes can be accomplished through the amalgamation of different colours within a composition, hence presenting an extensive range of potential applications. Different mixes of colours can evoke specific moods or tones by leveraging the principles of colour theory and colour psychology (Chaudhary, 2019). A significant proportion of students have a foundational understanding of the colour wheel, which encompasses basic and secondary colours, as well as an awareness of the harmonious relationships between specific colour combinations. Nevertheless, the comprehension of the colour wheel among students might transcend the basic understanding of blending and amalgamating primary and secondary hues, including red, yellow, blue, orange, purple, and green (Flatla et al., 2013). Developing a comprehensive comprehension of many colour schemes can augment

students' understanding of colours. Furthermore, this particular feature holds significant importance for individuals working in creative disciplines, such as painters and designers.

When considering the selection of colour schemes, it is important for students to consider the utilisation of the expanded range of each specific colour. This comprises a variety of variants, encompassing hues, tints, and tones. The proposed method aims to offer viewers with visually calming colours that have been modified to be either lighter, darker, or neutralised. Furthermore, these modifications facilitate the deliberate employment of highly saturated colours to accentuate particular elements as needed. There are multiple categorizations of colour schemes, and their definitions depend on the particular approach used to choose the hues. Artists and designers utilise a colour wheel as a tool to establish the selection of colours for each of these schemes.

Two-Colour Schemes

A two-colour scheme refers to a colour scheme wherein two distinct hues are selected, typically with a significant contrast, in order to enhance their visibility. The aforementioned hues can be classified as complementary due to their positioning as direct opposites on the colour wheel. Complementary colour combinations encompass the pairing of blue and orange, red and green, as well as purple and yellow. Complementary colour schemes are comprised of hues that are positioned immediately opposite one another on the colour wheel. When the complements are juxtaposed, they exhibit heightened intensity. Several instances of this colour scheme include blue-green and red, yellow-red and blue, and purple-blue and yellow. According to Eiseman (2014), these combinations incorporate both warm and cold colours into the surroundings, resulting in increased contrast and a harmonious equilibrium. There exist three distinct categories of complimentary colour schemes. One of the schemes that can be employed is the analogous-complementary scheme. This harmonious effect is created through the utilisation of an analogous colour

scheme, wherein two colours that are adjacent to each other on the colour wheel are combined with the complementary colour of one of the two selected hues. Split complementary harmonies consist of a primary colour and the two adjacent colours to its complementary colour. The final system is referred to as the double-complementary scheme. The aforementioned scheme is accomplished by the use of two closely correlated colours and their corresponding complements (Mahnke & Mahnke, 2011). Complementary colours possess a visual characteristic whereby they typically juxtapose a warm hue with a cold hue, resulting in a favourable attribute that counterbalances a more subdued one (Birren, 2015).

An alternative two-colour scheme can be generated by employing dyadic colours. This scheme comprises two colours on the colour wheel that are juxtaposed by one intervening colour. The colours blue and green exhibit dyadic properties, as do the colours red and orange. Dyadic colours exhibit strong visual harmony, albeit with a somewhat lower level of contrast compared to complementary colours.

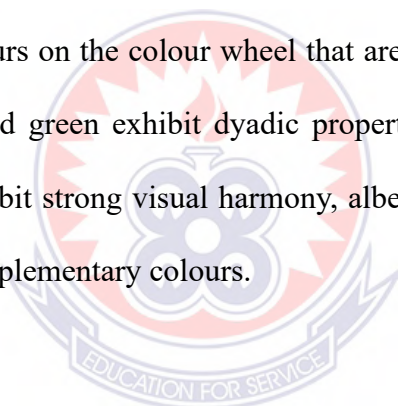




Figure 2.1 Two-colour scheme

Three-Colour and Four-Colour Schemes

Three-colour schemes are colour schemes that use three colours; similarly, four-colour schemes use four different colours. There are several types of schemes that fall within these categories:

Three-colour schemes

- Split complementary colours: Uses two dyadic colours with a complementary colour between them. For example, blue and green are dyadic, and the complement to blue-green is red or orange.

- Triadic colours: Consists of three colours that are all equally distant from one another on the colour wheel. One example is red, yellow, and blue; another example is green, orange, and violet.
- Split analogous colours: Uses three individual colours that are all spaced apart by one colour. It is similar to a dyadic scheme but more expanded. Blue, green, and yellow would be a split analogous scheme.



Figure 2.2 Three-colour scheme

Four-colour Schemes

Tetradic colours: Two sets of complementary colours, making four colours total for the scheme, though one colour is the dominant colour. For example, a tetradic scheme could consist of a complementary pair of blue and orange and a second pair of purple and yellow.

Square colours: A set of four colours that are spaced evenly apart from each other on the colour wheel, used in equal amounts. Violet, yellow, blue-green, and red-orange are a square colour scheme.

Three-color and four-color schemes must often pick a dominant colour, making the others subordinate colours. This helps to create a balance between the colours, as using them in equal amounts could result in something that appears imbalanced.

Monochromatic Colour Scheme

According to Kerr (2013), a monochromatic colour scheme refers to a design approach that use a single colour, but incorporates different tints and tones of that colour. The term "tint" is used to denote the process of incorporating white into a colour in order to increase its brightness, whereas the term "shade" is employed to describe the act of introducing black into a hue to decrease its brightness. Monochromatic schemes are predicated upon the utilisation of a solitary hue, hence facilitating the evocation of specific emotions or atmospheres that hold significance for the designer. According to Bawa et al. (2019), monochromatic schemes have a tendency to achieve a sense of harmony. However, if an artist fails to effectively employ these schemes, the resulting hues may appear dull or lack significant contrast. A monochromatic colour scheme may employ blue as the foundational hue, opting for a deep shade and a pale tint to establish visual differentiation.

The fundamental principle of the monochromatic colour scheme is centred on the utilisation of a single main colour. This particular hue assumes the role of the central element, the primary focus. Various shades and tints can be generated by modifying the brightness of the core colour or incorporating black or white. The resultant colour palette comprises a range of hues that exhibit same chromaticity but differ in terms of saturation and brightness. The nuanced differences inherent within a singular colour family give rise to a visually captivating and cohesive outcome that may be effectively employed in the realms of design and art.

The monochromatic colour scheme is characterised by its inherent simplicity, which is considered one of its key advantages. Designers are afforded a sense of liberation from the intricacy and potential discordance that arises from the utilisation of several colours when they are limited to working with only one colour. The inherent simplicity of this option renders it highly suitable for minimalistic designs and situations, whereby the emphasis lies on clean lines and the cultivation of a serene ambiance. In the field of interior design, the implementation of a monochromatic colour scheme has the potential to significantly alter the ambiance of a given space, thereby converting it into a serene sanctuary. This approach fosters a perception of unity and equilibrium inside the area.

Harmony constitutes a vital element within the context of the monochromatic colour scheme. Given that all the colours within this scheme possess a common underlying hue, they inevitably exhibit a harmonious relationship (McGilchrist, 2019). The utilisation of many hues and tints of a singular colour inherently generates a visual coherence, resulting in a gratifying perception of organisation. Within the realm of artistic expression, a monochromatic composition possesses the capacity to elicit sensations of tranquilly and unity, effectively directing the viewer's focus towards the subject matter by eliminating the potential interference of opposing hues. The monochromatic colour scheme exhibits versatility and can be effectively employed across a range of design styles and applications. In the realm of fashion, it is worth noting that an ensemble composed entirely of a single colour, sometimes referred to as a monochromatic outfit, has the potential to convey a striking and assertive message. The combination of a red dress, complemented by red shoes and matching accessories, produces a visually impactful and self-assured appearance. In the realm of fashion, a discreet implementation of a monochromatic colour palette can be observed, wherein several tones of a solitary hue are employed to cultivate a refined and sophisticated aesthetic.

Within the realm of graphic design and branding, the utilisation of a monochromatic colour scheme holds significant potential as a formidable instrument for effectively communicating a distinct mood or identity. Take into account the prominent golden arches of the fast-food chain McDonald's or the distinctive blue hue associated with the social media platform Facebook. These brands have effectively employed the monochromatic strategy to establish a robust and identifiable visual identity. The constant application of a singular colour can facilitate the establishment of brand awareness and cultivate consumer trust (Tarenskeen, 2016). The utilisation of a monochromatic colour palette transcends the realm of visual design and encompasses various other creative fields. Within the realm of music composition, it is not uncommon for composers to conceive works that primarily revolve around a singular tonal centre, so delving into the intricacies and affective qualities inherent within that particular key. Within the realm of literature, authors have the capacity to employ a monochromatic subject, wherein a singular concept or sentiment is thoroughly examined from diverse vantage points and perspectives across a given piece of writing.

The utilisation of the monochromatic colour scheme in the realm of photography has the capacity to produce visually captivating and thought-provoking photographs. Black and white photography exemplifies the monochromatic technique, when the depiction of a scene or topic is achieved entirely via the use of varying shades of grey (Mallikarjuna, Varunraj & Kumar, 2017). The utilisation of simplicity in a photograph can effectively emphasise its shape, texture, and emotional aspects, so rendering it a perennial preference for photographers who aspire to achieve a classic and artistic ambiance.

The utilisation of a monochromatic colour scheme holds substantial importance within the realms of architecture and interior design. The utilisation of a singular colour palette in architectural design serves to establish a cohesive and harmonious connection between a building's exterior and inside, so fostering a sense of continuity. For example, the

utilisation of a monochromatic colour scheme centred around earthy tones has the potential to elicit a sense of affinity with the natural environment, so facilitating the harmonious integration of a structure into its immediate surroundings. In the field of interior design, the utilisation of a monochromatic colour scheme has the potential to significantly alter the ambiance and aesthetic of a given area. The bedroom is conceptualised with a diverse range of blue hues, including the gentlest powder blue to the most profound navy (Wang, 2019). This phenomenon engenders a calming and tranquil ambiance, ideally suited for the purposes of relaxation and slumber. Incorporating diverse textures and materials within a cohesive colour palette can enhance the visual complexity and appeal of a space, so mitigating any potential monotony or lack of dimensionality.

The utilisation of a monochromatic colour palette has several obstacles. One possible drawback is the possibility for boredom. In the absence of contrasting hues, a monochrome aesthetic may evoke a sense of monotony or lack of inspiration if not implemented with careful consideration. In order to address this issue, designers frequently employ a variety of colours and tints within the selected colour palette to generate visual intrigue and dimension. An additional obstacle is in the process of choosing an appropriate colour for the scheme. The efficacy of the monochromatic method in design is contingent upon the careful selection of the foundational colour, as it plays a crucial role in achieving simplicity and coherence (Paglen, 2019). Designers are need to take into account the emotional and psychological connotations of colour, in addition to its suitability within the specific environment.

2.9 Psychology of Choosing Colours in Picture Making

The psychology of colour is based on the mental and emotional effects colours have on sighted people in all facets of life (Mikellides, 2012). There are some very subjective pieces to colour psychology as well as some more accepted and proven elements. In art education, colour is often associated with a person's emotions. Colour may also influence a person's mental or physical state. For example, studies have shown that some people looking at the colour red resulted in an increased heart rate, which then led to additional adrenaline being pumped into the blood stream.

There are also commonly noted psychological effects of colour as it relates to two main categories: warm and cool. According to Hunjet & Ivančić (2018) Warm colours – such as red, yellow and orange – can spark a variety of emotions ranging from comfort and warmth to hostility and anger while Cool colours – such as green, blue and purple – often spark feelings of calmness as well as sadness. For instance, students in picture making class can utilise the colour purple. Purple utilizes both red and blue to provide a nice balance between stimulation and serenity that is supposed to encourage creativity. Light purple is said to result in a peaceful surrounding, thus relieving tension. These could be great colours for a home or business office.

Colour has both intuitive and symbolic-representational significance. Colours which evoke a positive feeling in the artist can conjure a positive mood; or the converse approach may be used to depict negative moods (Whitfield & Whelton, 2015). Arguably, the artist summons this mood, and the spectator infers it, because of a common register (cultural or possibly inbuilt and by cognitive predisposition) in decoding emotional associations of colour. Hence, in the West at least, red often is associated with anger and passion; blue with melancholy; black with despair and death; white with purity; and so on. The “importance we attach to our perception of light and colour and its emotional effects upon us is not only

celebrated by artists, poets and architects”, it has long been seen clinically to “influence mood” (Best, 2017). For students of arts, colour is used to “explore visual perception and to represent or evoke emotions. The psychological effects of colour, hue, saturation, and brightness” are understood to evoke particular “psychological responses” in the artists and the viewer (Schewe et al., 2011). These responses command proximal consistency across arts producers/spectators, albeit with margins for individual interpretations of these general emotional impressions. This is why the spectator, even if they have no direct knowledge of the artist, their mental state or intentions, can nonetheless experience similar emotions (in viewing the work) to those the artist felt (in producing it). Hence it is useful to make a distinction: between the effect of colour psychology on the artist (producing the work); and the effect of the work on the viewer. For the artist, who is experiencing “negative” psychological and emotional states, the effects of colour psychology could be used in a remedial sense. For instance, as Kaimal (2013) notes, “Anything that engages your creative mind the ability to make connections between unrelated things and imagine new ways to communicate—is good for you”, and engages the brain to summon “information to make predictions about we might do and more importantly what we need to do next to survive and thrive” (Gharib, 2020).

The engagement with colour can be a means to confront, navigate and process emotional states for the artist or painter, helping them overcome bad moods or negative minds states conscious and unconscious (Hussain, 2021). Specifically, this entails the artist selecting colours which are reflective (for them) of the problems they are facing at that time, whether they are able to precisely define these problems or not. Indeed, the “art-making process can be a powerful catalyst for the expression of unconscious material”, and colour has an important role here: as a form of (psychological) “transference” for the art

practitioner, allowing the art object to “embody” the emotions which the artist is dealing with (Rifkind et al., 2013).

For students, an awareness of colour psychology could be a vital asset in how they approach the art process, in that it can help them in understanding their own cognitive processes. A degree of metacognition in this respect might invest the arts student with an ability to leverage certain “negative” moods into positive creative acts (Gharib, 2020). This would involve active management of thought-processes: where students take command of their own psycho-emotional impulses and direct them in positive ways. Further, a sensibility for colour psychology would logically enhance the student’s ability to consciously craft the emotional register they seek. Following this logic, there is a clear continuity and interactivity between the art practitioner/teacher and the art student. Both are dealing with emotional phenomena in a highly reflexive manner. Thus, it is the duty of the teacher/practitioner to impart to the student the metacognitive capabilities of self-analysis in colour psychology (Budd, 2013). In this manner, the student will not be overwhelmed or inhibited by poor mood or mind state; on the contrary, they will transmute this raw emotional matter into productive creative outcomes.

2.10 Teachers Role in Assisting Students in Picture Making

Art education plays a pivotal role in a comprehensive curriculum, affording pupils the chance to delve into their imaginative capacities and cultivate their artistic proficiencies. In the context of the visual arts, the act of creating images holds considerable importance as it provides students with a means to express themselves and convey ideas visually. In the present setting, the job of an educator is of utmost importance in providing guidance and support to students as they engage in the process of creating visual representations.

Primarily, an educator fulfils the role of being a catalyst for inspiration and motivation among students. Through the introduction of many art forms, renowned artists, and a wide

range of styles, teachers have the ability to inspire students' enthusiasm for the creation of visual imagery. Teachers frequently impart their personal passion for the arts, thereby fostering an environment conducive to the cultivation of pupils' individual artistic inclinations (Tsai, 2018). Teachers play a pivotal role in facilitating students' artistic expression by fostering enthusiasm and providing support, so alleviating the initial apprehension associated with artistic self-expression. Consequently, students are motivated and empowered to generate profound and purposeful visual representations.

Teachers also have a crucial role in offering technical instruction and facilitating the development of skills. The process of picture creating encompasses a diverse array of approaches, spanning from traditional methods such as drawing and painting to contemporary practises like digital art and sculpture. The proficiency of an instructor can facilitate students in comprehending the essential principles of composition, colour theory, perspective, and other related concepts. Teachers has the ability to showcase a diverse range of instructional methodologies, furnish valuable evaluative input, and furnish students with supplementary materials to enhance their proficiency. This technical instruction is highly important in assisting pupils in transforming their imaginative concepts into concrete visual representations (Wang et al., 2020).

Additionally, teachers cultivate a conducive and loving atmosphere to facilitate the development of artistic abilities. Artistic expression has the potential to be profoundly intimate and occasionally susceptible, as it serves as a means for individuals to convey their innermost thoughts and emotions. It is imperative for teachers to establish an environment that is secure and devoid of judgement, thereby fostering a sense of ease and willingness among students to engage in experimentation, embrace risk-taking, and accept the occurrence of errors. Teachers play a crucial role in fostering students' self-assurance

and facilitating their exploration of novel artistic domains by providing advice and motivation.

In addition to possessing technical expertise, teachers play a crucial role in nurturing students' aesthetic vision. The practise of visual art involves more than just technical proficiency; it encompasses the ability to effectively communicate emotions, concepts, and meanings through images. Teachers promote the development of critical thinking skills among students by prompting them to engage in thoughtful analysis of their work (Tilley, 2020). This is achieved through the utilisation of inquiries such as, "What narrative are you endeavouring to convey?" or "Which emotions do you intend to elicit?" Art instructors provide guidance to students in the areas of ideation, planning, and conceptualization, facilitating the development of a more profound comprehension of their creative process.

Moreover, teachers facilitate the exposure of students to a diverse range of artistic ideas and cultural influences. Art serves as a mirror that reflects the values, beliefs, and customs of a given community and culture. Teachers possess the ability to expand students' perspectives by acquainting them with a wide array of artists and art movements originating from various temporal epochs and geographical locations. The aforementioned exposure serves to enhance students' comprehension of the realm of art, while also fostering their inclination to delve into novel artistic styles and concepts in their own creative endeavours (Jennings, 2017). Teachers also contribute to the facilitation of pupils in discovering their distinctive artistic expression.

The cultivation of a diverse range of artistic styles and techniques is vital, although it is as crucial to foster the growth of individuals' individual personal identities. Teachers provide assistance to pupils in identifying their specific preferences and facilitate the development of their unique artistic expression. The process of self-discovery holds significant

importance for pupils as it enables them to generate genuine and purposeful visual representations.

Moreover, teachers have a crucial role in promoting critique and reflection as integral elements of the artistic process. Constructive criticism plays a pivotal role in assisting students in recognising and addressing areas that require enhancement within their artistic endeavours, hence facilitating the refinement of their creative aptitude. Teachers facilitate dialogues wherein students engage in critical analysis and evaluation of both their own work and that of their fellow classmates. During this educational procedure, pupils acquire the ability to effectively express their ideas and cultivate a discerning perspective, so fostering their artistic development (Karim et al., 2017). Teachers also provide guidance to pupils in navigating the digital domain of image creation. In the contemporary era characterised by technological advancements, the significance of digital art tools and software is progressively escalating. Teachers acquaint students with various digital art methodologies, software platforms, and technological instruments, so equipping them with the ability to navigate and respond to the dynamic realm of art. In addition, teachers place significant emphasis on the significance of ethical considerations and copyright awareness within the domain of digital art.

In addition to addressing technical and artistic elements, teachers imbue pupils with a feeling of discipline and a strong work ethic. The act of creating visual representations frequently necessitates the possession of qualities such as patience, tenacity, and dedication. Teachers foster a culture of goal-setting, efficient time management, and unwavering dedication to artistic pursuits among their students. This field of study not only facilitates the advancement of students' artistic abilities but also imparts significant life skills (Dong & Zhao, 2018).

Finally, teachers fulfil the role of mentors and champions for their students' artistic endeavours. The individuals in question provide guidance to students in the process of constructing portfolios, preparing for exhibitions, and seeking more educational opportunities or professional pathways within the realm of the arts. In addition to their instructional role, teachers often serve as facilitators in connecting students with other opportunities, including participation in art competitions, access to scholarships, and engagement in artist residencies. The provision of support and direction from mentors can exert a long-lasting influence on the artistic trajectories of students.

2.11 Challenges Facing Visual Arts Students in Picture Making

Visual arts students encounter a multitude of obstacles throughout their pursuit of expertise in the field of pictorial creation. The field of creative expression presents a multitude of options for individuals to engage in self-expression and discovery. However, it is important to acknowledge that this field also entails various challenges that can be both hard and fulfilling.

The fundamental aspect of visual arts instruction revolves upon the inherent difficulty of self-expression. The act of creating visual art is an inherently personal pursuit, and students frequently encounter challenges in their quest to discover their individual artistic voice and aesthetic. Artists are faced with the challenge of reconciling their personal artistic vision with the demands and standards set by academic institutions and expectations (Ameen & Vadera, 2017). Achieving this equilibrium can be a significant challenge, given that students may experience a sense of obligation to adhere to specific trends or methodologies in order to excel in their academic endeavours. Furthermore, the technical aspects associated with the process of creating images might be intimidating. Proficiency in a diverse range of artistic materials, tools, and techniques is necessary for students pursuing visual arts. These encompass the domains of drawing, painting, sculpture, photography,

and digital art. Each of these media possesses distinct regulations, materials, and technical proficiencies that must be acquired. Effective communication through picture creating necessitates a substantial commitment of time and effort in acquiring a comprehensive understanding of the underlying principles associated with each medium (Lerouge-Cohen, 2023). Moreover, the perpetual advancement of technology in the realm of digital arts introduces an additional stratum of intricacy, necessitating students to be abreast of the most recent software and hardware developments.

Another obstacle that individuals sometimes encounter is the difficulty in overcoming creative blocks and maintaining inspiration. Visual artists sometimes encounter periods of stagnation characterised by a lack of free-flowing ideas. Experiencing frustration and demotivation can result in the development of self-doubt and a decline in self-assurance regarding one's competencies. The process of surmounting creative obstacles necessitates the possession of resilience and the capacity to derive inspiration from even the most ordinary facets of existence. The development of a sustained passion for picture production is a skill that visual arts students must cultivate over time (Gerbaudo, 2015).

The provision of critique and feedback plays a crucial role in the development of visual arts students. However, the process of receiving constructive criticism might pose emotional difficulties. When students allocate a substantial amount of time and emotional effort towards the creation of a work of art, they develop a sense of attachment to it. Critiques, despite their well-intentioned nature, can occasionally evoke a sense of personal assault. The cultivation of the talent to gracefully accept and absorb feedback is vital for students, as it significantly contributes to their artistic growth and development. The presence of competition within the art world introduces an additional level of intricacy. The pursuit of a sustainable livelihood in the field of visual arts presents a formidable challenge for students, since it is characterised by intense competition and a lack of predictability.

The endeavour of developing a prosperous career within the art sector can be perceived as daunting, necessitating not only artistic aptitude but also proficiencies in marketing, networking, and entrepreneurship (Jannoura et al., 2015).

Furthermore, visual arts students often experience significant burdens due to the societal and familial expectations and obligations placed upon them. Art is sometimes perceived by many individuals as a recreational pursuit rather than a feasible professional path, resulting in scepticism and discouragement from supportive family and friends. Students often encounter a dilemma when they must choose between following their personal passions and fulfilling the expectations set by their family, resulting in significant emotional difficulties. The dynamic and evolving nature of the art industry in the digital era poses a distinct array of obstacles. The advent of technology has significantly expanded the possibilities for creative expression and dissemination. However, it has also prompted inquiries on the worth and genuineness of conventional artistic mediums. Visual arts students are faced with the challenge of navigating and embracing the evolving landscape of their discipline, as they seek to integrate digital components into their artistic endeavours without compromising the fundamental nature of their trade (Joergensen, 2015).

Many visual arts students encounter practical problems such as financial limits and inadequate resources. The cost of art supplies, studio space, and access to specialised equipment can be rather high. Some students may lack the financial resources necessary to invest in these materials, so impeding their capacity to explore various mediums and techniques. Furthermore, the financial implications associated with art education, encompassing expenses such as tuition fees and necessary supplies, can be a substantial challenge for numerous individuals wishing to pursue a career in the arts (Biondini & Vogl, 2019).

The growth of students in art education might be impeded by many institutional problems. The constraints of limited access to studio space and equipment, insufficient money for art programmes, and a dearth of different perspectives in the curriculum might together impede students' capacity for personal development and creative inquiry. Moreover, it is worth noting that the conventional framework of art education within academia may not consistently correspond with the unique requirements and ambitions of individual students, resulting in feelings of dissatisfaction and lack of involvement.

Finally, visual arts students may encounter significant difficulties due to the emotional burden of rejection and the apprehension around the prospect of failure (Cundall, 2020). The art industry is widely recognised for its inherent subjectivity, and achieving success within this realm may often be challenging and difficult to attain. Numerous rejections and setbacks are commonly encountered by artists during their professional trajectories. Managing these instances of failure while still sustaining the fervour and determination to persist in creative endeavours can impose a significant emotional burden.

2.12 Conceptual Framework

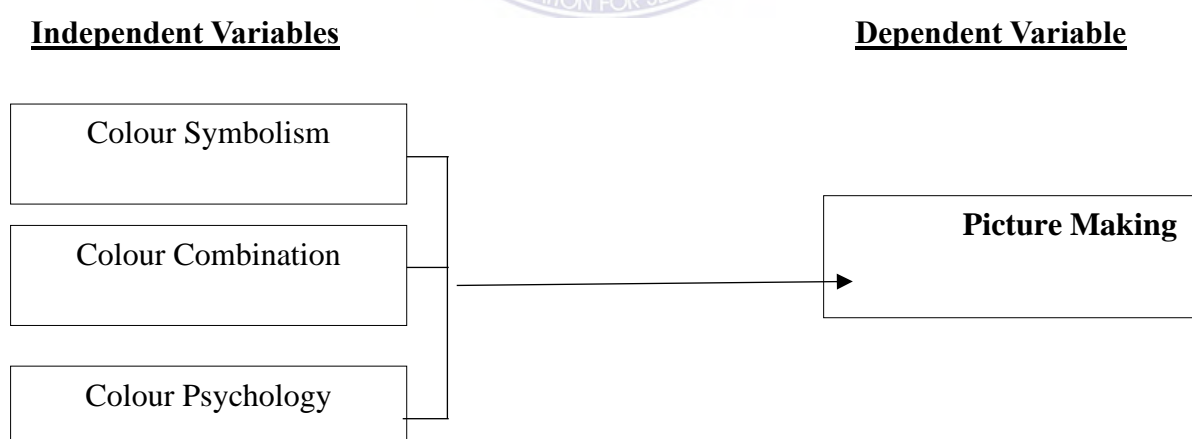


Figure 2.3 Conceptual Framework, Source; Author's own construct, (2023)

This conceptual framework is an attempt to describe how the use of colour symbolism, colour combination and colour psychology contributes to picture making. The dependent variable will change as a result of changes in the independent variables.

2.13 Empirical Studies

In their study, Ou et al. (2015a, 2015b) conducted measurements on preference and harmony for a total of 190 colour pairings. This was achieved by administering a task to participants, in which they were required to provide binary judgements for each pair. Specifically, participants were asked to indicate whether they liked or hated each colour combination, as well as whether they perceived it as harmonic or disharmonious. The researchers discovered a strong positive correlation between average harmony and average preference judgements. However, it is important to note that even if an observer perceives a colour combination as harmonious, there exists a moderate probability that they will still have a negative opinion towards the pair. Nevertheless, Ou et al. (2004b) failed to provide a description of the specific types of combinations that are considered harmonic but hated, as well as omitted to explore potential individual differences in preferences for harmony.

In their study, Helson and Lansford (2011) examined the impact of backdrop colour on individuals' preference for "object" or figural hues. To do this, participants were requested to evaluate 125 object colours in relation to 25 distinct coloured backgrounds. Participants exhibited a greater preference for object colours when presented against backgrounds with differential lightness and, to a lesser degree, contrasting saturation. The impact of hue disparity yielded less definitive results; however, in a general sense, there was a tendency for object colours to be more favourably perceived when presented against backdrops featuring contrasting hues. It is worth mentioning that Helson and Lansford (2011) formulated their research inquiry in relation to the preference for "object colours" in various backgrounds, which exemplifies figural preference. They proceeded to discuss their findings in terms of pair preference and pair harmony, without explicitly differentiating between these types of judgements in a systematic manner. Nevertheless, it

is evident from the researchers' task description that their primary focus was to investigate the preference for a specific foreground colour in relation to a coloured backdrop.

In their study, Camgöz, Yerner, and Güvenç (2012) examined the impact of backdrop colour on individuals' choice for object colour. However, their findings indicated that neither similarity nor contrast had any significant effects. This phenomenon may have arisen due to the limited methodology employed, wherein only the participants' most favoured colour was measured on each of the eight background colours. This approach is unlikely to have yielded sufficiently comprehensive data to detect any potential impacts of figural preference, if they are there.

Gender is a significant determinant in the manner in which kids establish a connection with colour. According to Moore (2013), the impact of classroom colour varies for each kid based on their gender. The findings derived from the research conducted by the Victorian Institute of Teaching exhibit a high level of clarity. The research findings indicate that individuals of different genders have differential learning outcomes in response to varying colour surroundings. Males have a heightened level of behavioural adherence when exposed to vibrant surrounding colours. Nevertheless, it has been shown that female individuals tend to exhibit more disciplined behaviour in environments where the wall hues are characterised by soft and delicate tones. According to Heppell (2017), it is crucial to consider the sensitivity towards colour responses specific to each gender when designing an atmosphere that fosters a dynamic educational experience.

Previous empirical research has indicated that there exists a gender association with some colours, including pink being perceived as feminine and blue as masculine (Cunningham & Macrae, 2011). According to Chen et al. (2020), the colour pink is further symbolic of marginalised communities characterised by limited social power and poor social standing. As indicated by Jonauskaite et al. (2019), adult females may choose to abstain from the

colour pink in order to prevent any potential association with these depictions. In contrast, the colour red symbolises authority, dominance, and elevated social standing. These representations might provide insight into the reasons why adult women are attracted to the colour red and why red is associated with both good and negative meanings. In the realm of valence, pink and blue have been commonly linked to predominantly positive emotions, although blue has also been associated with feelings of sadness (Jonaskaite et al., 2019). Likewise, initial investigations have explored the underpinnings of children's color-affect associations in order to determine whether their responses to colours are primarily driven by biological factors, as suggested by Guidlford (2018), or if their colour preferences are shaped by learned associations. Lawler and Lawler (2013) conducted a study to examine the color-affect correlations in early childhood, with the aim of determining the potential innateness of these responses. The researchers discovered a continuous association between the colour yellow and joyful photos, as well as the colour brown with sad pictures, among youngsters aged 3 and 4. Based on these findings, they put out the argument that these results provide support for the biological assertion. According to Cox (2015), it has been observed that young infants may have already acquired the ability to comprehend traditional colour affect correlations. This particular talent appears to be relatively simpler for young children to grasp in comparison to other drawing abilities. Although the early research did not provide a persuasive explanation for the children's actions, it did demonstrate a correlation between the emotional responses of young children to colour and the affective nature of the pictures they were instructed to draw.

2.13 Chapter Summary

The phenomenon of colour arises from the intricate interplay between light and atoms or molecules of matter (Tilley, 2018). Specifically, it is the result of the interactions between the electrons associated with these entities. Colour, in the context of human perception, can be defined as the subjective visual manifestation of light as it is detected by the human eye. The perception of colour by the human eye is attributed to the complex interplay between the eye and the brain, which enables the discrimination of light based on its varying wavelengths or energies (Tilley, 2010). The phenomena of colour is widely observed in the material world and can be attributed to atomic and sub-atomic interactions at the molecular level, as supported by empirical evidence. The human perception is deeply influenced by the presence of colour, which significantly impacts our understanding and interpretation of physical entities such as particles and fields. The presence of colour is consistently present in our surroundings and has a significant role in shaping our perceptual encounters, becoming an ongoing and interpretative phenomenon. According to Babin et al. (2013), experts contend that our perception of colour can have significant ramifications for our emotional and psychological well-being. Research suggests that there is a correlation between different colours and specific moods, which in turn can influence psycho-emotional states. Consequently, these interventions have the potential to serve as a remedial measure for addressing certain unfavourable emotional or psychological conditions (Day & Rich, 2019). The field of colour psychology suggests that the exposure to specific colours can be advantageous for some conditions (Birren, 2016).

Within the realm of art production and art education, there exists an exploration of the connection between an artist's mental state and the utilisation of colours in a contemplative and metacognitive manner. This exploration emphasises the interconnectedness between an artist's mental state, the selection of colours employed to represent their subject matter, and

the subsequent influence these colours exert on the viewer's perception of the artwork (Wright, 2016). In certain instances, when an artist is confronted with negative emotions or facing personal challenges, they may deliberately choose colours that mirror these psycho-emotional states. By externalising their internal experiences through the use of colour, artists employ it as a means of conveying and symbolising their emotional condition. The artist's intention to generate a specific impression for the art spectator is conveyed through a perceived association between colour and psycho-cognitive consequences. In the context of art education, the field of colour psychology holds significant relevance, since it plays a role in the foundational instruction provided to art students (Mathern, 2014).



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the choice of the study area, research design, data sources, population, sampling and sample determination, data collection methods and also provides an introduction to the data analysis. The chapter further describes the research instrument and their application and concludes by giving considerations to some ethical issues.

3.2 Research Design

The study design offers a framework for obtaining, quantifying, and evaluating data. In the realm of research, meticulously designed and organised studies strive to effectively manage a multitude of variables that have the potential to influence its accuracy (Lewis, 2015).

The study employed a descriptive research design. According to Erickson (2017), a descriptive survey design, also known as a normal survey, involves the collection of data through the use of questions and subsequent tabulation of responses. This method focuses on a particular group of individuals and aims to understand their unique characteristics, opinions, attitudes, and past experiences. As posited by the authors, the primary objective of this study methodology is to acquire knowledge pertaining to a vast demographic by means of performing a comprehensive survey within that community. This allows the researcher to present a diverse range of inquiries to the participant.

3.3 Research Purpose

The research study employed a qualitative research design. Qualitative research has been employed in studies due to its capacity to gather data pertaining to an individual's thoughts, perspectives, and expertise. According to Pathak, Jena, and Kalra (2013), the qualitative method can be characterised as a comprehensive and subjective approach that utilises

experiences and events to derive meaning in life. Grosseohme (2014) refers to a qualitative study, which is a form of social research that centres on the interpretation and sense-making processes of individuals on their experiences and the surrounding world. The objective of high-quality research is to provide a comprehensive examination of individuals or groups of individuals in their everyday routines. Scholars employ the quality technique to gain a comprehensive understanding of individuals' behaviours, attitudes, experiences, and emotions.

3.4 Population

The population of a study, according to Gould (2015), is a broad spectrum of individuals (subjects), objects, or events having comparable observable traits. They also underlined that the population is the research's purpose and that it needs to be accurately identified and described. The general population serves as the research's population, from which a sample is taken and generalised. The population of the study were the Visual Arts Students at Tema Senior High School.

3.5 Sample Size and Sampling Techniques

The analysis employed a purposive sampling technique. The main objective of employing a purposive sample is to ensure the selection of a sample that may be deemed as a reliable representation of the broader community (Bloor & Wood, 2016). This is achieved through the deliberate selection of a subset of characteristics that exert non-random influence on a representative sample of the population, drawing upon the expertise of individuals knowledgeable about the demographic. The selection of interviewees and the total number of interviews were predetermined prior to the commencement of fieldwork, but were subsequently adjusted to align with the specific conditions encountered during the fieldwork process (Abrams, 2010).

3.6 Sources of Data

The primary and secondary data sources that were used to get the data for this investigation. The reasons why the aforementioned data collection sources should be chosen above other data collection strategies include the following:

3.6.1 Primary Data

Primary data are the type of data that are collected from the original source. For this study, the primary data will include answers acquired via interviews given to study targets.

3.6.2 Secondary Data

For the objective of this study, secondary data were chosen as a source of data collection for the literature review. The majority of the secondary data sources for this study were published textbooks and papers on colour and picture making

3.7 Data Collection Instruments

3.7.1 Semi Structured Interview

The utilisation of semi-structured interviews was selected as a means to facilitate the research participants' articulation of their own perspectives regarding colour. The interviewer established a two-person dialogue, which facilitated the collection of research-relevant information and data (Anderson, 2014). One of the benefits of utilising the semi-structured interview method is that it allows the interviewer to take charge of the information-gathering process from the interviewee, while still providing enough flexibility to delve deeper into the interviewee's responses and pursue emerging leads (Hitchcock & Hughes, 2016). Semi-structured interviews possess the additional benefit of fostering an environment wherein participants are encouraged to freely articulate their experiences, devoid of any imposed limitations or constraints on their expression. The data was acquired via verbal communication between the interviewer and the interviewee. The

researcher conducted individual interviews with each student outside the classroom setting. A series of individual interviews was conducted with a sample size of nine students. The interviews provided an opportunity for the students to articulate their perspectives without encountering difficulties in written expression.

3.7.2 Classroom Observation

The selection of classroom observation as a research method was motivated by its ability to capture real-time data from authentic educational settings. The act of observation enables researchers to perceive phenomena that may otherwise go unnoticed, uncover information that participants may not disclose during casual interviews, and witness events that are recent and characterised by a higher degree of unpredictability (Cohen, Manion, & Morrison, 2018). Semi-structured observation was employed as a pre-lesson assessment approach. This methodology facilitated the systematic and yet authentic observation of phenomena. The researcher conducted an observation of the utilisation of colour in the process of creating visual representations within three distinct educational settings. This study will involve the observation of three different classrooms: an early stage one classroom (SHS 1), a stage one classroom (SHS 2), and a stage two classroom (SHS 3). The classroom observation in the SHS 1 setting will solely occur during the pilot study, whereas the observation in the SHS 2 and SHS 3 classes was conducted as part of the primary research endeavour. During the classroom observation, the researcher conducted an examination of the utilisation of colour within the classroom setting in order to ascertain the various elements that influence the use of colours in the creation of visual representations. The observation of behaviour and mood was conducted in every classroom. The pupils' behaviour was tracked through the observation of variations in behavioural patterns when utilising colourful paper learning resources against exclusively white paper learning materials. The observation of mood was conducted based on the

emotional response elicited when utilising coloured learning materials within the educational setting. A cursory examination of the student's work samples provided a preliminary assessment of whether the use of coloured learning materials facilitated the process of picture creation. The duration of the observation was restricted. The process of documenting classroom observations was involve the use of bullet points, be documented on a distinct piece of paper for each lesson. Subsequently, these observations was compiled and organised within an observation repository.

3.7.3 Personal Reflective Journal

The researcher maintained a personal reflection notebook during the duration of the study. During this period, it is imperative to record observations regarding the students' responses to colour, their colour preferences, the relationship between colour and behaviour, as well as the teacher's use of colour inside the classroom. The present journal was composed during the pilot study with the aim of identifying any additional research that required further investigation. The act of maintaining a reflective journal facilitated the researcher in acquiring a comprehensive comprehension of the various aspects that influence students' decision-making process when it comes to selecting colours in the context of picture creation. Through a comprehensive examination of the various aspects in which colour has the capacity to influence pupils within the educational setting, the researcher conducted an assessment to determine the specific regions that exerted a more pronounced impact on the students.

3.7.4 Small Focus Groups

Focus groups facilitate group dynamics and enable the exploration of certain topics, primarily aimed at generating empirical information. Focus groups possess the capacity to generate insights that may not have been accessible through individual interviews.

According to Cohen et al. (2016), when participants engage in interactions with one another instead of solely with the interviewer, their perspectives can surface, resulting in replies that may not have been elicited in a traditional interview setting. Focus groups are a type of qualitative research method that involves conducting group interviews. During these interviews, data is generated through the interaction and discussion among participants, who are provided with a specific topic by the researcher. In stage two, a limited number of focus groups were chosen to serve as participants. According to Cohen et al. (2016), individuals in these developmental phases possess the cognitive maturity necessary to engage in reciprocal exchanges of ideas, engage in collaborative discussions on specific subjects, and articulate their own subjective viewpoints. The utilisation of a focus group afforded the researcher the ability to engage in a collective discussion regarding each issue prior to the participants individually recording their own responses. This provided the students with the opportunity to engage in active listening and consider the many perspectives shared by their peers in order to independently evaluate the influence of colour. Focus groups are especially valuable when combined with conventional informal interviews, reflective diaries, and observation, thus allowing for triangulation.

The researcher extended an invitation to the students participating in the small focus group to accompany them to a nearby private room. In this setting, the session opened with ice-breaking activities, such as engaging in a talk about their respective day.

3.8 Data Analysis Techniques

Data analysis is the methodical extraction of meaning from a body of information and data that makes it easier to analyse original data empirically and communicate findings to an audience (Creswell, 2014). The conversion of the interview transcripts into word text format will serve as the foundation for data analysis in this report. Although it took some

time for the researcher transcribed the data, listened to the audio often to precisely pick up the concepts will help me become comfortable with the data and understand what it meant. The word text will thereafter be modified to find and fix spelling and grammatical errors. The transcribed data further coded into patterns in accordance with the three main goals of the report. The study will be conducted together with the comprehension and synthesis of the research findings that connected the findings to the literature and theories investigated to determine how everything works.

3.9 Ethical Considerations

By following the guidelines set forth by the institution and the study's organisation, as well as the general laws and regulations, this research will be governed. The researcher will be better able to comprehend the full scope of a project's prospective repercussions with the assistance of the school's officials. The proper course of action with regard to third parties will differ depending on the study and must be decided on an individual basis while adhering to the broad ethical principles of respect for the participants. Participants received an education and briefing on colour and picture making. Along with the participant, the study's relevance and goal was explored (Jean et al., 2015). The responder were asked for informed consent after being informed of the study's goals, advantages and disadvantages, confidentiality, privacy, and voluntary participation. Participants was urged to participate since they would be made aware that it was just academic

CHAPTER FOUR

RESULTS AND ANALYSIS

4.1 Overview

The main objective of the study was to examine the factors that influence students' choice of colours in picture-making among students at Tema Secondary School. The study specifically aimed to explore colour symbolism effects on picture making among students at Tema Secondary School, to examine the understanding level on colour combinations in picture making among students at Tema Secondary School and finally to explore the psychology of choosing colours in picture making among students at Tema Secondary School. This section therefore demonstrates the data analysis, presentation of the findings and the discussions of the results.

4.2 Response Rate

The researcher interviewed 9 participants who were purposively selected because they were first year visual arts student at Tema Secondary School. All the 9 respondents were committed to the interview process, giving a response rate of 100% for the study. For the sake of anonymity, only participant's gender and age were collected

4.3 Demographic Respondents

This section of the study shows the demographic information of the respondents with respect to examine the factors that influence students' choice of colours in picture-making among students at Tema Secondary School.

Table 4. 1 Demographic Information of the Respondents

S/N of Interviewee	Characteristics of Interviewees
Student 1	This respondent is a male. He is between the ages of 16 – 20 years
Student 2	This respondent is a female. She is between the ages of 16-20 years
Student 3	This respondent is a female. She is between the ages of 16 -20 years
Student 4	This respondent is a female. She is between the ages of 16-20 years
Student 5	This respondent is a female. She is between the ages of 16-20 years
Student 6	This respondent is a male. He is between the ages of 16-20 years
Student 7	This respondent is a female. She is between the ages of 16 -20 years
Student 8	This respondent is a male. He is between the ages of 16 -20 years
Student 9	This respondent is a male. He is between the ages of 16-20 years
Student 10	This respondent is a female. She is between the ages of 16-20 years
Student 11	This respondent is a female. She is between the ages of 16-20 years
Student 12	This respondent is a male. He is between the ages of 16- 20 years
Student 13	This respondent is a male. He is between the ages of 16-20 years
Student 14	This respondent is a female. She is between the ages of 16-20 years

Source: Field Data (2023)

Table 4.1 shows that majority of the students in the visual arts first year class are females. The study also showed that all the students were between the ages of 16-20 years.

4.4 Knowledge of colour symbolism in relation to their choice of colours for Picture Making

The first objective of study was to explore the students' knowledge of colour symbolism in relation to their choice of colours for Picture Making. In view of this respondents were interviewed in order to get their response based on the following questions; how often do you engage in picture making? Are you familiar with the concept of colour symbolism in art or design? When creating a picture, do you consider the symbolism or meaning?

Below were their responses

Students 1 and 2 (Virtually the same information summed up)

How often we engage in picture making varies widely due to personal interests, academic demands, and available resources.

Student 3

We often explore diverse mediums, such as painting and drawing, driven by assignments, hobbies, or a desire for creative expression.

Student 4

We are more likely to consider colour symbolism, as they possess a deeper understanding of its impact on conveying emotions, themes, and messages in our artwork.

Regarding colour symbolism, we are generally more attuned to its nuances. We explore how colour choices can evoke our feelings, represent ideas, or communicate cultural meanings.

Student 5

Picture-making is something I engage in sparingly; it's usually inspired by specific events or feelings I want to express visually. I do find colour symbolism fascinating and, when I create, I consider colors carefully, choosing shades that reflect the mood I want to convey. If I'm depicting something joyful, for instance, I'll lean toward vibrant colors. It's a way for me to express thoughts that words can't capture.

Student 6

I actually don't make pictures as often as I'd like, but whenever I do, I find it incredibly therapeutic. I'm familiar with colour symbolism, and I like to play with colors based on how I feel. Red might signify energy or warmth to me, while blue represents calm or introspection. I think colour can carry a lot of weight, so when I choose it, I often pause to consider what I want that colour to say.

Student 7

My engagement with picture-making varies depending on my schedule, but I love the process. Colors mean a lot to me, and I believe they shape the overall impression of an artwork. Whenever I create, I aim to be intentional with colour choices. I use yellows and greens to evoke growth or optimism, and it makes my artwork feel alive. The symbolism in colors adds a layer of depth I wouldn't want to miss.

Student 8

I occasionally create pictures, especially when I want to capture a fleeting emotion or moment. Colour symbolism is something I enjoy exploring. I tend to use dark

colors like navy or deep purple to convey mystery or introspection, and when I create, I let those colors communicate the theme without needing to say too much. It adds an unspoken layer to what I make.

Student 12

I make pictures when inspiration strikes, often after seeing something beautiful in nature or a striking photograph. I love experimenting with colour symbolism in these moments. I'll use blues and greens if I want to evoke peace or calmness, and I consciously think about how those colors will make others feel. Symbolism adds a narrative that draws people in.

Student 11

My picture-making sessions are sporadic, usually a way for me to wind down or sort through my thoughts. I'm familiar with colour symbolism and love using it to add subtle meaning to my work. For example, I gravitate toward earthy tones when I want to create something grounded. I see it as another layer of expression, like adding another brushstroke of emotion.

Student 9

While I'm not someone who makes pictures daily, the moments I do feel like a window into my thoughts. Colour symbolism plays a big role in what I create. I enjoy using cooler tones like lavender or mint to suggest tranquillity or calm. It's satisfying to know that even without direct symbols, the colors can evoke what I feel or think.

Student 10

I get around to picture-making only when I feel an urge to create, and those sessions are precious to me. Colours are central to this process. When I'm working on something hopeful or bright, I'll use pastels or whites, drawing on the meanings tied to those colors. This approach helps me focus and gives my work an added significance.

The participants were also of the view that they understand that warm tones like red can signify passion or danger, while cool blues might evoke calmness. According to them they deliberately select colours to enhance the impact of their visual narratives.

Table 4.2 shows how students drew meaning on what colour symbolises to them

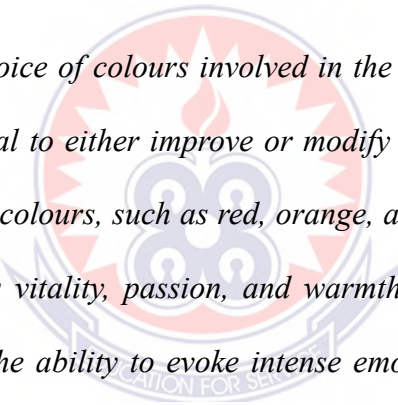
Table 4.2 Colour Symbolism

Colour	Symbol
Red	Danger, Anger, Calamity and Love and Vitality
Black	Death, Depression, Darkness, Danger
Blue	Peace, Joy, Happiness, Love, Calmness
White	Purity, Peace, Victory, Joy, Happiness and Joy
Yellow	Wealth, Royalty, Riches and Happiness and Vitality
Green	Life, Vitality, Growth and Friendly

Source: Field Data (2023)

From Table 4.2, the utilisation of colour symbolism holds considerable importance in the realm of visual representation among students, exerting influence on their artistic decisions and eliciting emotional responses. The utilisation of colour in the realm of visual art extends beyond just aesthetic considerations, as it possesses a deep-rooted psychological and cultural import that influences the manner in which observers see and construe a given artwork (Kourdis, 2017). Gaining a comprehension of the impact of colour symbolism on the creation of images can yield significant insights into the transmission and manifestation of concepts within the student population.

The phenomenon of colours elicits a diverse array of feelings and associations, frequently originating from cultural and psychological frameworks. According to the respondents,



The selection our choice of colours involved in the creation of visual imagery that can have the potential to either improve or modify the intended communication of their artwork. Warm colours, such as red, orange, and yellow, are frequently linked to attributes such as vitality, passion, and warmth. When employed prominently, these colours have the ability to evoke intense emotions and capture the viewer's focus.

In contrast, cool hues such as blue, green, and purple have a tendency to elicit sensations of serenity, tranquilly, and introspection. Students have the ability to intentionally employ various colour families in order to evoke specific emotional responses within their artwork. As an illustration, a picture characterised by a predominance of warm hues has the potential to communicate feelings of enthusiasm and intensity, whilst a composition mostly employing cool tones has the capacity to produce a sense of tranquilly or sadness.

In addition to evoking emotional responses, the utilisation of colour symbolism in the creation of visual art extends to encompass cultural and contextual significances. Colours

hold diverse cultural importance across different societies. As an illustration, the colour red may serve as a symbol of good fortune and festivity within a certain cultural context, yet in a different cultural setting it may signify peril or the need for vigilance. In order to achieve adequate resonance of colour choices, it is imperative for students to take into account the cultural backgrounds of their intended audience (Hamilton et al., 2020). The demonstration of this consciousness not only highlights an appreciation for cultural sensitivity but also enhances the artwork by introducing additional levels of significance. The incorporation of colour symbolism that is culturally pertinent can foster a stronger bond between the artwork and its audience.

The interpretation of topic matter is also influenced by colour symbolism. Through the strategic manipulation of colours, pupils have the ability to direct the focus of the audience, accentuate particular features, or construct a distinct narrative. The utilisation of contrasting colours within a composition can effectively generate dynamic focal points, so directing the viewer's attention towards crucial elements of the artwork (Dunsmoor et al., 2022). Moreover, the deliberate arrangement of colours in close proximity might imply connections among various aspects or convey underlying concepts. For Instance, a response from Student 2 stated that

I may opt to utilise complementary colours in order to visually depict a sense of harmony, or alternatively, apply analogous colours to effectively communicate a notion of unity within my work.

Moreover, the utilisation of colour symbolism in artwork has psychological implications that permeate the entirety of its composition. Dark hues, such as black and deep blue, possess the ability to elicit a sense of enigma or sadness, whilst lighter tones, exemplified by pastels, frequently create emotions of purity or gentleness. Students have the ability to utilise these effects in order to strengthen the emotional impact of their work. The

incorporation of a gloomy colour palette inside a composition that depicts a melancholic subject matter has the potential to heighten the emotional impact it evokes. In contrast, employing a light and vibrant colour palette has the potential to enhance the emotional state of a composition that revolves around themes of joy or happiness.

4.5 Students' perception of Colour Combinations in Picture Making

The second objective of study was to examine understanding level on colour combinations in picture making among students at Tema Senior High School.

In view of this respondents were interviewed in order to get their response based on the following questions; how confident are you in using different colours to convey specific meanings or emotions? How do you usually choose colour combination when creating a picture?

Below were their responses

Student 6

My confidence in employing diverse colours to convey precise meanings or evoke particular emotions is steadily growing. The world of colour is a dynamic realm that can greatly impact the viewer's perception and emotional engagement with an artwork. While I may not yet possess complete mastery, I am enthusiastic about exploring its potential.

Student 3

When selecting colour combinations for my creations, I embark on a thoughtful journey. Firstly, I delve into colour theory to understand the psychological and cultural associations attached to different hues. I consider how warm tones like red and yellow can evoke feelings of energy and warmth, while cooler shades like blue and green might inspire calmness or melancholy.

Student 8

Context matters significantly in my decision-making process. I contemplate the intended message of the artwork and the emotions I aim to evoke. For instance, a vibrant palette of contrasting colours might suit an optimistic and lively scene, while muted tones could convey introspection.

Student 5

For me nature often serves as an abundant source of inspiration. Observing how colours coexist harmoniously in landscapes or observing the interplay of light and shade encourages me to experiment with a complementary colour scheme. Additionally, exploring the works of renowned artists provides valuable insights into successful colour combinations.

Student 2

Collaboration with peers further enriches my colour choices. Sharing ideas and receiving feedback widens my perspective and enables me to refine my selections. Experimentation remains at the core of my process, as I continuously test different combinations to discover the most resonant and evocative choices.

Student 7

As a visual arts student, my confidence in using colours to convey specific meanings and emotions stems from my understanding of colour theory and its psychological impact. I know that colours evoke particular feelings and can set the tone of a composition. When working on a piece, I consider the message I want to communicate, choosing colours that align with the mood I aim to create. For instance, I might use warm colours like red and orange to convey energy and

passion or cool tones like blue and green for calmness and serenity. This knowledge helps me be intentional with my colour choices and gives me confidence that my artwork will resonate emotionally with viewers.

Student 10

Colour combinations in my work often begin with understanding the purpose of the piece and the emotions I want to evoke. For inspiration, I explore colour palettes that can harmonize or contrast effectively to enhance the composition. I often look at complementary colours, analogous schemes, or monochromatic themes, depending on the visual impact I aim to achieve. Experimenting with various shades and tones allows me to see how they interact, helping me refine the final palette. My process includes testing colours digitally or on a separate sheet, adjusting based on how well they capture the intended mood.

Student 11

I rely heavily on the psychology of colours to guide my choices, using each hue with the purpose of enhancing the viewer's emotional connection. Warm colours are my go-to for scenes depicting warmth, love, or excitement, while cooler shades work well for introspective or tranquil compositions. In choosing combinations, I often gravitate towards analogous or split-complementary palettes because they provide harmony without overpowering the subject. Observing nature's colour schemes is also a valuable tool; it offers endless combinations that are naturally pleasing to the eye.

Student 12

When I select colours, I think about cultural and symbolic meanings, as colours often hold different associations depending on context. I use this knowledge to create a deeper layer of meaning within my work. My approach is careful and methodical—I'll often build a base with neutral tones before layering in bolder colours. This way, I ensure that the emotional tone is set effectively without overwhelming the composition.

Student 13

Exploration and intuition both play a role in my colour selection process. I trust my instincts, especially after experimenting and refining my understanding of colours. I'm comfortable stepping out of conventional colour choices if it aligns with my vision. By continually practicing and observing the impact of different colour schemes, I feel more assured in my ability to create visually and emotionally resonant art.

The utilisation of colour in the creation of visual art is a complex process that necessitates both artistic discernment and a profound comprehension of the subtleties inherent in colour harmonies. The comprehension of colour combinations holds considerable significance among students, since it directly influences the visual impact and emotional resonance of their artworks.

Colour, in addition to its surface attractiveness, possesses a distinct form of communication. Various hues, shades, and tints possess the ability to elicit distinct emotional responses, and when skilfully amalgamated, they have the capacity to convey complex narratives within a singular artistic arrangement. The comprehension of colour

combinations necessitates a firm grasp of the ideas underlying colour theory, an exploration of the intricacies of the colour wheel, and a thorough understanding of the dynamics governing contrast, harmony, and mood (Cole, 2020). For students commencing their artistic endeavour, these principles may initially appear bewildering, although they hold paramount importance in unleashing the genuine potential of their artistic creations.

The understanding of colour combinations is rooted in the principles of colour theory, which serves as a foundational framework for examining the interactions between different colours. It is imperative for students to engage in a comprehensive exploration of the fundamental primary colours, namely red, blue, and yellow, and their pivotal function in the formation of secondary and tertiary colours. This knowledge serves as the fundamental basis for the construction of the complete range of hue combinations. Through a comprehensive comprehension of the merging and interaction of many colours, students possess the ability to expand their range of colours and establish a visual discourse that is simultaneously compelling and evocative (Simon & Ines, 2021).

The colour wheel, which is a circular depiction of the relationships between colours, functions as an essential guide in this endeavour. The subject matter spans the primary, secondary, and tertiary colours, while also illustrating the concepts of complementary, analogous, and triadic colour schemes. The colour wheel serves as a valuable resource for pupils, providing them with a diverse range of ways to effectively generate certain visual effects. Complementary hues, which are positioned in direct opposition to one another on the colour wheel, generate a striking contrast that enhances their individual qualities when juxtaposed. Adjacent colours that are analogous in nature provide a smoother and more gradual transition, which is well-suited for effectively communicating a sense of harmony and oneness. Triadic colour schemes, which are created by uniformly distributing three colours, provide a harmonious balance between contrast and cohesion (Ades, 2022).

However, the comprehension of hue combinations extends beyond simply theoretical knowledge. The ability to understand how colours elicit emotions and impact mood necessitates an intuitive perception. The colour red is commonly associated with passion or danger due to its boldness, whereas the colour blue is typically perceived as conveying a sense of calmness and melancholy. The colour yellow is often associated with feelings of warmth and excitement, while the colour green is commonly interpreted as representing growth and the natural world. By comprehending these emotional undercurrents, pupils have the ability to infuse their artworks with intended sentiments. Having a solid understanding of colour psychology allows students to effectively communicate with their audience's subconscious, evoking profound and resonant reactions (Hall, 2015).

Contrast, an essential element in creating successful colour combinations, including the deliberate arrangement of light and dark shades, warm and cool tones, as well as complementary hues. The dynamic interaction between various elements in the artwork influences the viewer's visual focus, establishing key points of interest and guiding the progression of the narrative. The utilisation of high contrast in visual elements serves to capture attention and effectively communicate a sense of drama, whereas low contrast imparts a more nuanced and serene aesthetic. The adept utilisation of contrast enables pupils to effectively direct their audience's attention within their artistic compositions, emphasising noteworthy parts and steering the visual progression.

In contrast, harmony aims to establish a perception of integration and consistency within a musical work. When colours achieve harmony, they seamlessly merge, resulting in a visually balanced and aesthetically satisfying experience. Analogous and monochromatic colour schemes frequently elicit a sense of harmony, providing a pleasant experience for the viewer and enabling them to perceive the artwork as a unified entity (Sekki et al., 2023). The attainment of harmony necessitates not only a comprehensive understanding of

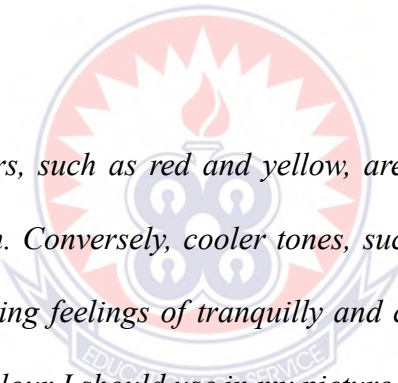
the interplay of colours but also a discerning perception of the nuances in tonal differentiation and equilibrium.

4.6 Rationale for choosing colours for Picture Making

The third objective of study was to explore the rationale for choosing colours for Picture Making by students at Tema Senior High School.

The process of selecting colours is a dynamic one that frequently goes beyond individual preferences, as it is influenced by cultural, psychological, and contextual variables. The emotional resonance of colours constitutes the core of this phenomena. The emotional response elicited by each hue is distinct, a phenomenon that children naturally understand as they engage with the realm of visual representation.

According to **Student 3**,



For me warm colours, such as red and yellow, are known to emanate a sense of intensity and passion. Conversely, cooler tones, such as blue and green, are often associated with evoking feelings of tranquilly and calmness. This actually plays a role on the kind of colour I should use in my picture making

The students at Tema Senior High School utilise these emotional connections to infuse their artworks with intended atmospheres, so amplifying the influence of their artistic expressions.

Moreover, colour preferences are substantially influenced by cultural and societal factors. Students are presented with a wide array of cultural origins and creative traditions, which have a significant influence on their interpretations of colours. The selection of colours by these students may be influenced by the symbolic significance that certain colours possess within certain cultural contexts.

For instance, according Student 7

I hail from a cultural background in which the colour white symbolises purity and the commencement of new phases I deliberately employ this hue in a strategic manner to communicate ideas centred on innocence.

For Student 9, he stated thus:

As a visual arts student, choosing colours in picture-making often reflects my emotional state. When I'm feeling introspective, I naturally lean towards deeper, muted tones like blues and greens. These colours feel grounding, calming, and almost meditative, allowing me to convey emotions I find hard to express otherwise. Sometimes, I use bright, vibrant colours to inject energy and joy into my work, almost like an antidote to duller moods. The psychology behind my colour choices feels like a direct channel to what's happening within me, letting each piece reveal a slice of my inner landscape.

Student 10

For me, colours aren't just visual choices; they're personal symbols. Warm hues like oranges and reds represent enthusiasm, passion, and life in my art. They echo memories, like the warmth of family gatherings or sunsets I've watched with friends. Cooler tones like purple or teal bring me a sense of nostalgia, allowing me to revisit past experiences and emotions. Each colour holds meaning, almost like a piece of my story embedded in the artwork. I believe my colour choices add depth, drawing viewers into the narrative I create on the canvas.

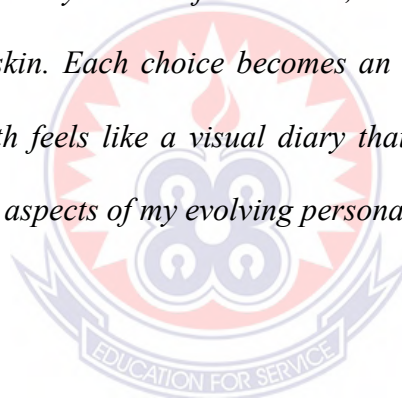
Student 11

I approach colour selection in picture-making almost like storytelling. Every shade has a purpose and adds a layer to the overall narrative. Earthy tones bring a sense

of comfort and familiarity to my work, reminding me of my connection to nature and grounding me in reality. Vibrant colors, on the other hand, make me feel bold and daring, like I'm pushing my boundaries and inviting others to see the world through my eyes. My process is intuitive, letting colour become the language through which my personal experiences and aspirations come alive.

Student 12

Colour selection in my artwork often mirrors my journey toward self-discovery. If I'm uncertain or grappling with complex emotions, I might choose muted, ambiguous colours to create a feeling of mystery. Conversely, bright, contrasting colours symbolize clarity and self-assurance, as if announcing that I'm more comfortable in my skin. Each choice becomes an exploration of identity, and the palette I end up with feels like a visual diary that others can interpret, allowing them to see different aspects of my evolving personality.



Student 13

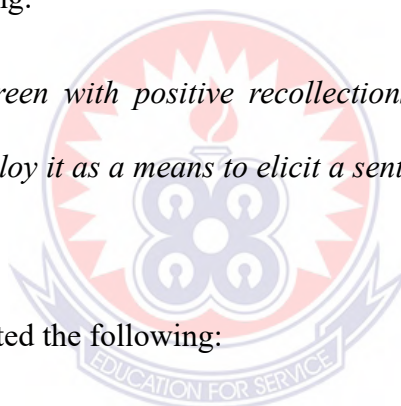
Colour psychology plays a transformative role in my creative expression. When I want my artwork to feel approachable and comforting, I go for soft pastels or gentle shades, mirroring how I want others to feel in my presence. For times when I aim to create impact and spark intense emotions, I rely on darker hues and strong contrasts, pushing boundaries and inviting introspection. My colour palette is, in many ways, a reflection of how I perceive myself and how I wish to communicate that perception to the world. Through colours, I find a voice that transcends words, making my art a conversation between the viewer and me.

The selection of colours in psychology is closely linked to the psychological phenomenon known as synaesthesia, when sensory experiences become intertwined (Lee et al., 2020). The phenomenon of colour-sensory perception association is frequently observed among students, leading to a blending of visual and emotional experiences. This phenomenon enhances their artistic process, enabling artists to generate multimodal experiences on the canvas.

In addition, the choosing of colours is significantly influenced by individual psychological characteristics. Individual experiences, recollections, and even physiological variations can exert an influence on an individual's preference for particular colours.

Student 1 stated the following:

I link the colour green with positive recollections of natural environments and tranquilly and I employ it as a means to elicit a sentiment of calm within my artistic creations.



Likewise, **Student 4** presented the following:

I may exhibit a preference for specific colour combinations that are visually pleasing to me due to physiological issues, because I see myself as someone who is colour blind.

The selection of colours in the creation of visual imagery is also influenced by contextual factors. The goal and intended audience of the artwork are crucial factors. Students take into account the intended display location and target audience of their artwork, so making appropriate adjustments to their colour palettes. In a dynamic school environment, the deliberate use of vibrant and contrasting colours may be employed to effectively captivate the attention of spectators. Conversely, in a quiet gallery setting, a preference may be given to subdued tones in order to create a more introspective atmosphere.

4.7 Discussion of Findings

4.7.1 Knowledge of colour symbolism among Picture Making students

The findings demonstrate that the utilisation of colour symbolism holds considerable importance within the realm of visual representation among students. This phenomenon encompasses their aesthetic selections and possesses the capacity to elicit emotional responses. The utilisation of colour symbolism holds considerable importance within the realm of art, exerting influence over the creative process and the interpretation of visual imagery by students studying the visual arts (Johnson et al., 2016). The utilisation of colours in the realm of art extends much beyond their visual appeal, encompassing significant cultural, psychological, and emotional implications that possess the potential to deeply shape the significance and effect of an artistic creation.

Colour serves as a universally understood means of communication that surpasses cultural and linguistic boundaries. Colours hold distinct symbolic connotations throughout various cultures, and these cultural interpretations play a crucial role in shaping our perception and understanding of artistic expressions. According to the findings of Lee et al. (2019) visual arts students receive instruction on how to successfully utilise colour symbolism as a means of enhancing communication with their audience and efficiently conveying their intended message. As an example, the utilisation of the colour red frequently signifies emotions such as passion, love, or peril, whereas the colour blue may elicit sensations of tranquilly, peace, or melancholy. Through the acquisition of colour language proficiency, students have the ability to infuse their artistic creations with intricate levels of significance and sentiment.

The utilisation of colour symbolism is profoundly ingrained within cultural contexts. According to the respondents, they frequently investigate these cultural linkages in their artistic endeavours. Some of the respondents stated that, the colour red is frequently linked

to notions of good fortune and affluence, rendering it a prominent selection in festive occasions and artistic depictions. On the other hand, it is worth noting that other respondents' cultures often attribute symbolic meanings to the colour red, such as love or anger. Consequently, this cultural perspective can significantly influence the narratives depicted in the artwork produced by visual arts students originating from these countries. The comprehension and use of cultural colour symbolism facilitate artists in establishing a profound connection with their audience, hence providing a more profound and immersive artistic encounter.

The comprehension of colour symbolism significantly influences the creative choices made by students studying visual arts. Every decision, ranging from the selection of the dominating colour palette to the choice of complementary hues, is influenced by the desired emotional response and symbolic representation. Artists engage in the exploration of diverse colour combinations in order to elicit distinct emotional responses and accentuate specific elements within their artistic creations. The artist's thorough deliberation over the selection of colours not only serves to enhance the visual allure of the artwork but also showcases the artist's expertise in manipulating the language of colours.

4.7.2 Students' perception/knowledge of colour combinations for Picture Making

The investigation demonstrated that students possess a heightened comprehension of colour combinations in their artistic compositions. At the fundamental level, pupils are exposed to the colour wheel, which serves as a visual instrument for categorising colours and illustrating their interrelationships. The acquisition of this fundamental knowledge is of utmost importance as it enables students to possess the requisite vocabulary and skills to engage in discourse and manipulation of colour within their artistic creations (Moore, 2018). The students get knowledge regarding the three fundamental hues, namely red, blue, and yellow, as well as the secondary hues, which encompass green, orange, and purple.

Additionally, they are introduced to tertiary hues, which are produced by blending a primary hue with an adjacent secondary hue. Acquiring a comprehensive understanding of the colour wheel constitutes the initial stage in empowering pupils to make well-informed decisions on colour selection.

Merely acknowledging the hues present on the colour wheel does not encompass a profound comprehension of colour harmonies. The investigation additionally demonstrates that students in the field of visual arts may encounter early difficulties in properly applying this information. Students have the option to use basic, single-color schemes that do not effectively captivate viewers or effectively communicate a desired mood or message. During the initial phases of their educational journey, students frequently create artworks in which their selection of colours is influenced by personal preference rather than a purposeful aesthetic objective. The incorporation of colour theory nuances is an inherent and anticipated aspect of their developmental process.

As students advance in their studies, they have a deeper understanding of the importance of complementary, analogous, and triadic colour schemes. Complementary hues, situated diametrically across the colour wheel, provide pronounced contrast and are commonly employed to produce dynamic and visually captivating compositions (Osborne et al., 2021). Visual arts students are beginning to recognise that the utilisation of complimentary colours has the potential to enhance the visual impact of their artistic creations. An instance of utilising red and green as complementary colours might elicit a perception of tension and dynamism, but the combination of blue and orange can engender a harmonious and balanced impression. This comprehension empowers individuals to purposefully utilise hue combinations, considering the emotional and aesthetic influence on their viewers.

Colours that are analogous, meaning they are positioned next to one other on the colour wheel, provide a more seamless and harmonious visual transition. Visual arts students gain

an understanding of the calming and harmonious effects produced by these colour schemes. For example, individuals may go for a range of blue and green hues to construct a serene depiction of a seascape, or alternatively, they may experiment with warm tones such as red, orange, and yellow to produce a vibrant and lively arrangement. This degree of understanding requires considering not just the colour correlations but also the story and atmosphere they wish to portray in their work.

Triadic colour schemes, characterised by the inclusion of three equidistant colours on the colour wheel, introduce a heightened level of complexity in terms of understanding. Visual arts students are taught that the utilisation of these combinations has the potential to generate visual equilibrium and captivate the viewer's attention. For example, the utilisation of a triad consisting of the colours red, blue, and yellow can provide a wide range of possibilities for effectively conveying a multitude of emotions and concepts. At this juncture, students exhibit a heightened level of discernment in their selection of colours, as they contemplate the ways in which triadic combinations might be strategically employed to convey a particular narrative or atmosphere.

The investigation further revealed that the psychological dimension of colour constitutes an additional facet of comprehension that is explored by students specialising in visual arts. The individuals begin to recognise that colours had inherent emotional and symbolic implications. An illustration of this can be seen in the symbolic associations attributed to the colour red, which commonly connote intense emotions such as passion, love, and danger. Conversely, the colour blue is frequently associated with qualities such as tranquilly, stability, and serenity. The incorporation of this psychological aspect enhances the artistic quality of their works, as they demonstrate a growing mastery in the selection of colours that correspond to the desired emotional resonance. Recognising the impact of

colour selections on the interpretation of artwork enables students to enhance the efficacy of their communication through their artistic creations.

As students accumulate knowledge and expertise, they engage in the examination and investigation of the cultural and historical dimensions of colour. It is acknowledged that the interpretation of colour symbolism can exhibit substantial variations when examined within different cultural and temporal contexts. Visual arts students get an appreciation for the fact that the utilisation of colour possesses the ability to express a cultural story or evoke historical allusions. For instance, individuals may opt to employ colours that are culturally significant as a means of expressing respect or drawing attention to pertinent societal matters. The advanced understanding of colour combinations enables artists to achieve more intricate and nuanced artistic expressions. This proficiency empowers students to utilise a wide range of cultural and historical influences, resulting in the creation of complex and multifaceted artworks.

The comprehension of the interplay between lighting and colour is an additional aspect that students studying visual arts develop an appreciation for. Artists acknowledge that the perception of colour can be influenced by varied lighting circumstances, so impacting the overall aesthetic effect of their artwork (Walsh, 2020). Comprehending this particular facet of colour holds significant importance for artists, as it empowers them to make well-informed judgements on their colour selections in diverse environments and under varying lighting conditions. The attainment of expertise in colour combinations also encompasses the aptitude to effectively utilise the various manners in which colours interact with each other. The exploration of ideas such as simultaneous contrast, wherein colours exhibit heightened intensity when positioned adjacent to their complementary counterparts, and the examination of the optical effects resulting from the juxtaposition of warm and cool

colours are undertaken by students. The acquisition of sophisticated knowledge enables individuals to produce aesthetically engaging artworks that captivate the observer.

4.7.3 Rationale for choosing colours for Picture Making among students

The utilisation of emotional connections by the students of Tema Senior High School serves to endow their artworks with distinct atmospheres, so augmenting the overall impact of their artistic creations. The psychology of colour selection extends beyond the realms of symbolism and harmony. In the realm of visual arts, it is imperative for pupils to take into account the significance of unique emotions and personal experiences while making decisions on colour choosing (Asante & Odoi, 2019). Emotions are inherently subjective in nature, and it has been observed that various colours have the potential to elicit distinct emotional reactions among individuals. As an illustration, an individual may establish a positive correlation between the colour yellow and feelings of joy due to its reminiscent association with cheerful childhood experiences in sunny weather. The establishment of a personal connection can exert a significant influence on the selection of colours in an artist's work.

The emotional component of colour choice is intricately linked to the concept of artistic expression. Artists employ the utilisation of colours as a means to communicate their emotions and thoughts, hence engendering a profoundly personal and introspective undertaking (Dunk, 2016). Visual arts students frequently engage in introspection to discern the feelings they intend to convey through their artistic creations. Subsequently, they select colours that harmonise with these emotional states. By adopting this approach, the process of colour selection transforms into a mode of self-expression and a mechanism for establishing a deeper connection with the audience.

Moreover, the psychology underlying the selection of colours is intricately connected to the fundamental principles of visual perception. It is imperative for students to take into account the manner in which colours interact both amongst themselves and with the human visual system. For example, warm hues such as red and orange have a tendency to visually progress and attract attention, but cold hues like blue and green have a tendency to visually retreat, so establishing a perception of depth and distance. Visual arts students utilise perceptual qualities in order to direct the viewer's attention and provide a perception of spatiality inside their artistic creations.

The interaction between colour and light is an additional significant factor to be taken into account. The perception of colours can be considerably influenced by the strength and quality of light. Colours can exhibit variations in brightness, dullness, warmth, or coolness under varying lighting circumstances. It is imperative for students to consider and predict the lighting circumstances under which their artwork will be exhibited. Consequently, they should modify their colour selections accordingly in order to uphold the intended visual impact.

The field of colour psychology is closely intertwined with the cognitive dimension of artistic creativity. Critical thinking is an essential cognitive process that visual arts students are required to engage in when considering the intended message, they aim to communicate via their artistic creations. The selection of colours has the potential to either strengthen or contradict the intended message. The selection of colours can convey intricate details, with subtle subtleties indicating intricacy, while stark contrasts can draw attention to certain elements. The psychology of colour in visual composition encompasses a cognitive procedure that entails deliberate planning and strategic decision-making to effectively elicit the intended influence on the viewer's cognitive state. The psychology of colour selection in picture creating among visual arts students is significantly influenced by

cultural factors. The interpretation and symbolism of colours can vary across different cultural contexts. The perception of auspiciousness and positivity might vary between cultures, leading to divergent interpretations and perhaps harmful associations. In order to produce artwork that is both sensitive and approachable to a varied audience, it is imperative to consider the cultural context in which it will be received.

It is imperative for students pursuing visual arts to delve into the examination of colour's significance within both historical and contemporary art movements. Various art groups have both embraced and challenged the established conventions pertaining to the utilisation of colour. For example, the Impressionist movement employed a vivid and fractured range of colours in order to depict the ephemeral qualities of light. Conversely, the Minimalist artists frequently utilised monochromatic colour schemes as a means of investigating notions of simplicity and form. Through the examination of these artistic movements, students are able to acquire a deeper understanding of the influence that colour choices have in developing and defining various artistic movements and trends.



Figure 4.1: Painting of a beach scene

Source: Student work, 2024



Figure 4.2: Colour work from nature Source: Student work, 2024



Figure 4.3: Composition of vegetable Source: Student work, 2024



Figure 4.4: Composition of Oranges

Source: Student work, 2024



Figure 4.5: Still-life composition

Source: Student work, 2024



Figure 4.6: Painting of Beach Scene Source: Student work, 2024

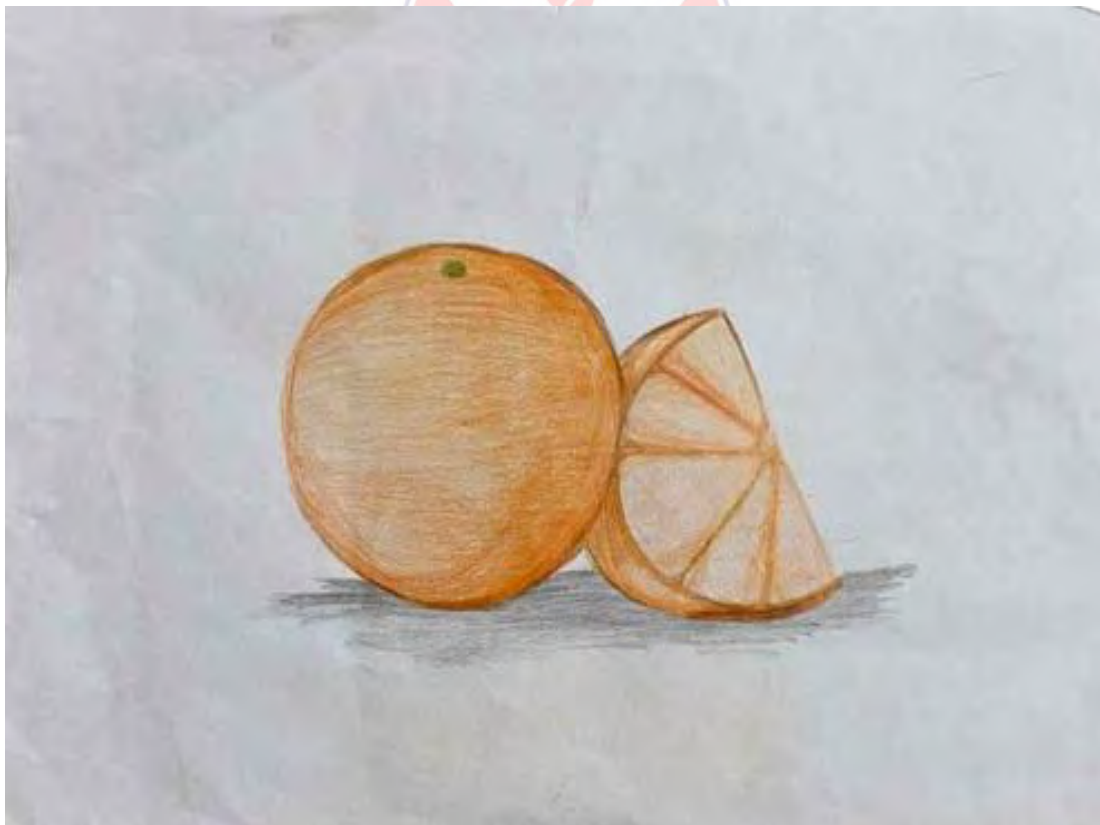


Figure 4.7: Still-life composition

Source: Student work, 2024



Figure 4.8: Colour work from Nature

Source: Student work, 2024



Figure 4.9: Still-life Composition

Source: Student work, 2024



Figure 4.10: Colour work from Nature

Source: Student work, 2024



Figure 4.11: Colour work from nature

Source: Student work, 2024



Figure 4.12: Still-life Composition Source: Student work, 2024



Figure 4.13: Still-life Composition Source: Student work, 2024



Figure 4.14: Painting of a Village Scene Source: Student work, 2024



Figure 4.15: Painting of Print Design Source: Student work, 2024



Figure 4.16: Still-Life Composition

Source: Student work, 2024



Figure 4.17: Colour Work of Nature

Source: Student work, 2024

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

This chapter focuses on the findings of the previous chapter. In the course of conducting research, conclusions are drawn and recommendations are made. There was then a discussion of the study's limitations and suggestions for future research.

5.2 Summary

The main objective of the study was to examine students' perception of colour combinations for Picture Making at Tema Senior High School; to explore the students' knowledge of colour symbolism in relation to their choice of colours in Picture Making and finally; to explore the rationale for choosing colours for Picture Making by students at Tema Senior High School.

5.2.1 Students' knowledge of colour symbolism in relation to their choice of colours for Picture Making

Based on the analysis conducted, it was evident that students' knowledge of colour symbolism was applied in their Picture Making exercises, This means that the incorporation of colour symbolism plays a significant role in the domain of visual representation among the student population. This effect extends to their artistic choices and has the ability to evoke emotional reactions. The incorporation of colour in the domain of visual art goes beyond just aesthetic considerations, as it holds significant psychological and cultural significance that impacts how viewers perceive and interpret a particular artwork. Acquiring an understanding of the influence of colour symbolism on the formation of visual representations can provide valuable insights into the dissemination and embodiment of ideas among students.

The significance of colours varies across varied cultural contexts (Yamin et al., 2022, August). For instance, the colour red can function as a representation of auspiciousness and celebration in a specific cultural milieu, yet in another cultural environment, it may indicate danger or the necessity for caution. To attain sufficient resonance in colour selection, it is crucial for students to consider the cultural backgrounds of their intended audience.

5.2.2 Students' perception of colour combinations for Picture Making

Based on the analysis conducted, it can be observed that there is a gradual increase in students' confidence when it comes to utilising a variety of colours in order to effectively communicate specific meanings or elicit particular emotions. The realm of colour is a dynamic domain that has the potential to significantly influence the viewer's perception and emotional involvement with an artwork. Although the respondent may not have achieved full mastery, they are eager to explore the potential of the subject.

The investigation further demonstrated that respondents engage in a deliberate process when selecting colour combinations for their creations. Initially, the respondent engages in an exploration of colour theory in order to gain insight into the psychological and cultural connotations that are linked to various shades (Salim & Yamin, 2022, August). The individuals in question take into account the impact of warm hues such as red and yellow in eliciting sensations of vigour and warmth, whereas cooler tones such as blue and green are known to induce a sense of tranquilly or sadness.

The consideration of context plays a crucial role in my decision-making methodology. The participants engage in thoughtful consideration of the intended meaning conveyed by the artwork and the specific feelings that the artist intends to elicit. For example, the utilisation of a dynamic assortment of contrasting hues may be well-suited to depict an enthusiastic

and animated setting, whereas subdued shades could effectively communicate a sense of reflection (Stanulevich, 2022).

5.2.3 Rationale for choosing colours for Picture Making among Students

The students of Tema Senior High School employ emotional connections in order to imbue their artworks with specific atmospheres, so enhancing the impact of their artistic expressions. Furthermore, it is important to note that individuals' preferences for certain colours are significantly shaped by cultural and societal influences. Students are exposed to a diverse range of cultural backgrounds and artistic customs, which exert a substantial impact on their perceptions and understandings of colours. The students' choice of hues may be impacted by the symbolic meaning that specific colours hold in particular cultural situations.

The utilisation of colours in the field of psychology is intricately associated with the psychological occurrence recognised as synaesthesia, wherein sensory perceptions become interconnected. The occurrence of the link between colour and sensory perception is a commonly seen phenomenon among students, resulting in the amalgamation of visual and emotional experiences. This phenomenon facilitates the artistic process, allowing painters to create multimodal experiences on the canvas. Furthermore, the selection of hues is greatly influenced by an individual's psychological qualities. The predilection for specific hues in individuals can be influenced by a variety of factors, including unique experiences, recollections, and even physiological variances (Martin, 2017).

5.3 Conclusions

The utilisation of colour symbolism is a powerful instrument employed by students involved in the creation of visual imagery. In addition to its visual appeal, the selection of colours in artworks imparts emotional qualities, cultural subtleties, and narrative complexity. In order to properly convey their intended ideas, it is imperative for students to

possess a comprehensive understanding of the psychological and cultural ramifications associated with colour (Moore, 2019).

Through the adept utilisation of warm and cool tones, thoughtful consideration of cultural meanings, and purposeful manipulation of colour relationships, individuals have the ability to harness the potency of colour symbolism in order to produce artworks that are both dramatic and evocative (Freeman, 2017). In this manner, the utilisation of colour transcends its aesthetic attributes and assumes the role of a communicative tool, enabling pupils to effectively convey intricate emotions and concepts to their intended recipients. As burgeoning artists go into the domain of colour symbolism, they enhance their creative expressions and establish more profound linkages between their artwork and the surrounding world.

The comprehension of colour combinations in the creation of visual art by pupils is a complex process that involves the integration of theoretical knowledge, intuitive judgement, and emotional impact. A fundamental aspect involves the understanding of colour theory and the utilisation of the colour wheel, as these resources offer the means to arrange harmonious compositions and elicit particular emotional responses (Russo et al, 2021). The deliberate manipulation of contrast serves as a mechanism to direct the viewer's attention, while the active pursuit of harmony plays a crucial role in maintaining visual coherence. In essence, the complex interaction of colour combinations serves as a medium through which pupils can acquire proficiency in expressing tales that surpass verbal communication, thereby producing artworks that evoke deep resonance (Walker & Anderson, 2017). As students engage in a more profound exploration of this domain, their recognition of the potency of colour in captivating emotions and thoughts will expand, enhancing their artistic pursuits and making a lasting impression on the landscape of creation.

In summary, the selection of colours in visual composition by student at Tema Senior High School involves a complex and multifaceted psychological process. The choosing of colours in artworks is influenced by a complex interplay of emotional, cultural, personal, and contextual elements. Students utilise their inherent comprehension of colour psychology to elicit particular emotions and reactions in their audience. Additionally, the multisensory aspect of colour perception and the impact of personal experiences contribute to the intricate character of this phenomena (Ommundsen, 2015). As these emerging artists persist in their pursuit of artistic excellence, their comprehension and application of colour psychology will inevitably progress, resulting in future creations that possess heightened impact and resonance.

5.4 Recommendations

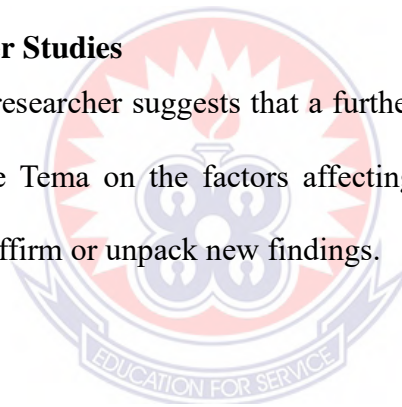
Based on the findings of the study, the following recommendations were made

- Teachers should teach students about the colour wheel, primary and secondary colours, complementary and analogous colours, warm and cool colours. This knowledge will be essential for them to grasp the emotional and psychological effects of different colours.
- Teachers can assign research projects on specific colours and their symbolic meanings. Teachers should have students present their findings to the class, discussing historical, cultural, and psychological associations. This can promote independent learning and deeper exploration.
- The study recommends that teachers should show students a variety of visual examples that demonstrate different colour combinations in artworks. Analyse famous paintings, illustrations, and photographs to highlight how artists effectively use colour to convey emotions, set moods, and create focal points.

- Teachers should have students create colour swatches by mixing different colours and arranging them on paper. This helps them see the transitions between colours and understand how different hues relate to each other.
- Teachers should provide hands-on activities where students can experiment with mixing colours. This could involve using paint, coloured pencils, or digital tools to physically create new colours and see how they interact.
- The study recommend that teachers should provide one-on-one guidance to students based on their artistic goals and projects. Help them think critically about their colour choices and offer constructive feedback to enhance their understanding of colour psychology.

5.5 Suggestions for Further Studies

Based on the findings, the researcher suggests that a further study should be done in other senior high schools outside Tema on the factors affecting student's choice of colour in picture making in order to affirm or unpack new findings.



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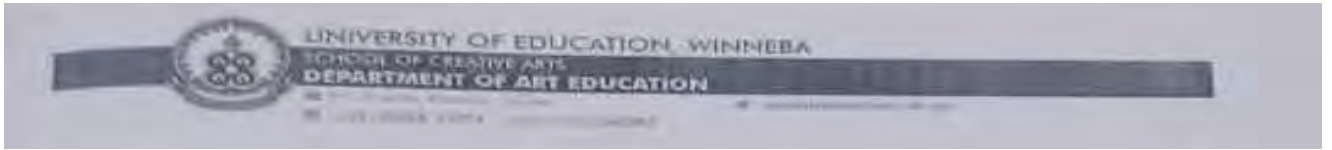
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APPENDIX A

A COPY OF LETTER OF INTRODUCTION



June, 2022

TO WHOM IT MAY CONCERN

Dear Sir? Madam,

LETTER OF INTRODUCTION

Miss Josephine Adoma Asare. with index number 202122624 in an MPhll Arts Education student in the Department of Art Education, University of Education, Winneba. undertaking a research which focuses on the topic. Investigating factors that influence students choice of colour picture making (2022 - 2024). She has requested for this letter to enable her collect data from your outfit.

We will be grateful if you could offer her the required assistance.

Thank you.

The image shows a handwritten signature in black ink over a typed name. The typed text reads: 'Yours faithfully', 'DEPT. OF ART EDUCATION', 'UNIVERSITY OF EDUCATION', 'WINNEBA', 'Dr. E. R. K. Amisah', and 'Ag. Head of Department'. The signature is written in a cursive style.

APPENDIX B

INTERVIEW GUIDE

I am currently pursuing a Master's degree at the University of Education, Winneba (UEW), and my research focuses on investigating the various factors that influence students' choice of colour in picture-making. This study aims to explore the personal, cultural, and psychological aspects that impact colour selection among students in artistic contexts. Your participation in this interview is entirely voluntary, and any information you provide will be treated with the utmost confidentiality. Please rest assured that no personal identifiers will be included in the final research findings, and your privacy will be respected throughout the entire process. Before we begin, I would like to confirm that you understand the nature of this interview and consent to participating. The interview will last approximately 30 to 45 minutes, and I encourage you to speak candidly, as your honest responses will play a crucial role in ensuring the success of this research project. Your valuable input is greatly appreciated.

Students' Knowledge of Colour Symbolism in Relation to Their Choice of Colours in Picture Making at Tema Secondary School.

1. How often do you engage in picture making?
2. Are you familiar with the concept of colour symbolism in art or design?
3. When creating a picture, do you consider the symbolism or meaning?

Students' Perception of Colour Combinations for Picture Making at Tema Secondary School

1. How confident are you in using different colours to convey specific meanings or emotions?
2. How do you usually choose colour combination when creating a picture?

Rationale For Choosing Colours for Picture Making by Students at Tema Secondary School

1. How do you determine the color palette for a piece of artwork, and what factors influence your choices (e.g., theme, mood, cultural significance)?
2. Can you describe a specific instance where the choice of colors in your artwork conveyed a deeper meaning or enhanced the overall message of the piece?
3. How do you balance personal artistic preference with the psychological or emotional impact that certain colors may have on the viewer when creating an image?

