UNIVERSITY OF EDUCATION WINNEBA

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COVID-19 IN GHANA

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(Fashion Design and Textiles)

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DECLARATION

STUDENT'S DECLARATION

I, Patricia Mensah, hereby declare that apart from references to other people's work which have been duly cited, this research work is the result of my own effort and that it has neither in whole nor in part been presented elsewhere for another degree.

SIGNATURE……………………   DATE………………...

PATRICIA MENSAH

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this Research work was supervised in accordance with the guidelines on project work laid down by the University of Education, Winneba.

SIGNATURE……………………   DATE………………...

ISAAC ABRAHAM

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I am grateful to the God almighty for the academic opportunities and the people he brought into my life during these periods. I would like to acknowledge and thank my supervisor Mr. Isaac Abraham for the encouragement, guidance and support throughout this project. I would also like to thank all the lecturers of the department for their academical support throughout my time as a student of the department. I acknowledge Mr. and Mrs. Benny-Coffie for their encouragement during the difficult times, words are not enough to express how thankful I am. I am extremely lucky to have them in my life. Thank you to Mr. Silas Offeh Nyamekye, a textile technician at the Department of Fashion and Textiles Education, University of Education, Winneba, Kumasi Campus for the technical assistant and support.

DEDICATION

I dedicate this work to God almighty for his divine protection and guidance throughout my studies. I also dedicate this work to my parents Mr. and Mrs. Apelike Mensah and my siblings.

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ABSTRACT

The study focused on using textile design as a communicating tool to curb the spread of COVID-19 in Ghana. The outcome of the result was discussed and analysed critically. The research was based on the qualitative research approach and made use of the art studio experimental and descriptive observational methods of research. The study revealed among others that, COVID-19 is global pandemic bedeviling many nations such as Ghana, however, the Ghana government has instituted various measures to curtail the spread of the virus. Also, the Ghanaian government is keen on enforcing preventive measures as a way of creating public awareness of the deadly nature of the virus and the need to stop its spread to preserve lives. Again, the study revealed the need for unique cloth prints to facilitate the education on the spread and curb of COVID-19 in Ghana. This project will enable other institutions to adapt this unique cloth print as their official cloth to help the mass production of this cloth sample for the education of the general public on the spread and preventive measures in the fight against COVID-19 in Ghana. Further recommendation is made for future research into exploring innovative cloth designs for solving other health issues bedeviling the country. This is to help promote the use of textile design as a communicating tool for educational purposes on health and other social issues.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

A great deal of research has been carried out into the dynamics of communication, where communication has been described as the transmission of information; a one-way process, or as an exchange of information; a two-way, or even more complicated process. Simply put, communication is the process by which messages are sent and received. A universal, essential process that encompasses an enormous range of methods including reading, writing, talking, listening, graphics and non-verbal behaviors. The 'transmission' model of communication describes communication as the transmission of information: a simple, one-way process. Semiotics' is the theory and study of messages or signs, especially as elements of language or other systems of communication: how they are organised and styled, how they get from the source (or "sender") to the destination ("receiver") and back again, how they are formulated and prepared by the source, and how they are received by the destination. In the semiotic approach, communication is seen as a mutual negotiation of meaning, an exchange of information between the sender and receiver, rather than a linear transfer of messages from transmitter to receiver. Signs presented by the signifier can be significant on a conscious or an unconscious level, and they can be verbal or non-verbal (Littlejohn, 2013).

In the vast and complex subject area of communication, words, either spoken or written down, are clearly an extremely sophisticated and effective tool in the expression of thoughts, emotions and ideas. However, research shows that nonverbal communication, that is, the process of sending and receiving wordless messages, is often more effective than verbal communication. How something is said can sometimes be more important than what is being said, even to the point of completely

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overriding the verbal content of the message Nonverbal messages are particularly potent and compelling because they are processed in ancient brain centres located beneath the newer areas that are used for speech. Nonverbal cues are produced and received below the level of conscious awareness, they give us the "look" and "feel" of our experiences that are remembered long after words have been forgotten. Body-language signals may be learned, 'innate', or mixed (Berger, 2007).

One picture is worth a thousand words. Fred (2006) explained this account as "a Chinese proverb, so that people would take it seriously." Alternatively, it is often easier to show something in a picture than to describe it with words. The two sides of the human brain have different attributes and respond to different stimuli. The left side of the brain is analytical, verbal, sequential and linear; the right is visual, spatial, holistic and relational. The left side of the brain is therefore associated with logic, responding better to textual material, whilst the right is more imaginative, responding more to visual imagery.

Visual Communication in Fashion and Textile Design (Ryder 2005) from the beginnings of human culture, visual awareness has been a key element in communication. In the same way, that information conveyed by the written word holds significance for humanity in the 21st century, the symbols of early cave paintings held a deep significance for the artists and cultures that produced them. Visual media are forms of communication that, while fundamentally different from speech, can and must be seriously examined as ways by which human beings create and share meanings. In fact, even in textual communications we use visual cues.

African textile designs and arts are representative symbols of African society. Some people and societies in Africa have developed symbols from proverbs, sayings, and king's quotation in a form of arts. Similarly, other ethnic groups also use the cultural landscapes, natural objects, or their

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innovative works in a form of arts for their contemporary designs. These symbols have been collected from various ethnic groups and then presented artistically through patterns for fabric decoration and design (Hoskisson, 2019).

Over the past two decades, Coronaviruses (CoVs) have been associated with significant disease outbreaks in East Asia and the Middle East. The severe acute respiratory syndrome (SARS) and the Middle East respiratory syndromes (MERS) began to emerge in 2002 and 2012, respectively. At present, a novel coronavirus, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), causing the Coronavirus Disease 2019 (COVID-19), emerged in late 2019, which has posed a global health threat with its ongoing pandemic in many countries and territories (Rodriguez-Morales et al., 2020)

Newly evolved CoVs are thus posing a significant threat to global public health. Over the past two decades, the current emergence of COVID-19 is the third CoV outbreak in humans (Munster et al., 2020). It is no coincidence that Fan et al. predicted potential SARS- or MERS-like CoV outbreaks in China following pathogen transmission from bats (Fan et al., 2019). The COVID-19 that emerged in China spread rapidly throughout the country and subsequently to other countries. Due to the severity of this outbreak and the potential of spreading on an international scale, the WHO declared a "global health emergency" on January 31st, 2020. Subsequently, on March 11th, 2020, a pandemic situation was declared. At present, we are not in a position to effectively treat COVID-19 since neither approved vaccines nor specific antiviral drugs for treating human CoV infections are available (7-9). Most nations are currently making efforts to prevent further spreading of this potentially deadly virus by implementing preventive and control strategies. Even though, there have been implemented preventive and control measures and can only be

effective through good communication medium. One of the effective communication medium is visual communication, where information is graphically represented and easily understood.

1.2 Problem Statement

The Government of Ghana initially responded to the virus outbreak through a nationwide disinfection and fumigation exercise which began in April 2020. In order to curb the spread of the virus, the government enforced lockdowns, aggressive contact tracing, public bans and social measures such as encouraging the wearing of face masks. In April 2020, it began the gradual reopening of the country; lifting all lockdowns while maintaining protocols such as social distancing, wearing of mask, and washing of hands etc.

In view of this, this research seeks to educate Ghanaians on the safety measures to curb the spread by introducing some traditional/ African designs that depict safety and hygiene on textile prints in symbolic forms. Using textile patterns as a media is probably as long as the history of textiles itself. Knitted, woven and printed patterns in garments have had a purely aesthetic purpose, but also an important communicative role as an extension of spoken and written language.

1.3 Purpose of the Study

The purpose of the study is to help reduce the spread of COVID-19 in Ghana through visual communication.

1.4 Objectives of the Study

The objectives of the study are to

1. To identify strategies government has adopted to curb the spread of COVID-19.

2. To develop textile designs that will educate the public on COVID-19.

3. To evaluate the effect of textile design as a symbol to reduce the spread of COVID-19.

1.5 Research Question

The research seeks to answer the following questions

1. What strategies have the government adopted to curb the spread of Covid-19?

2. How does developing textile design educate the public on Covid-19?

3. What are the effects of textile design as a symbol to reduce the spread of Covid-19?

1.6 Significance of the Study

Textiles can be seen on the streets more than ever before because of facemasks that really are 'on the face'. Somehow, textile can be seen as a protection against diseases. Although textiles are seen as a means of protecting virus, the virus is also an inspiration, an influence if one could say, in the use of textiles. Designers around the world are creating new kinds of textures, print, and shapes that fit the post-corona society.

An example of how the pandemic influences the use of textiles is 'The Full Metal Jacket' from Vollebak (Founded by twin brothers, designers, and athletes Nick and Steve Tidball), also known as the 'virus-killing coat of the future'. Vollebak (2020) says "as we enter a new era of disease, the Earth heats up, and fires and floods sweep across countries, we're radically underprepared as a species for the speed at which change is taking place. As normality shifts beneath us, our survival systems need to adapt — from emergency planning and infrastructure to our architecture and clothing. Clothes have to become intelligent, and they have to do it quickly. So, in full doubling down on our mission to design for the needs of the next century and not just the next season." They created a jacket from copper because viruses and bacteria cannot live on copper e.g. COVID-19.

> **Commented [H1]:** 1.what strategies have the government adopted to curb the spread of Covid-19?

> **Commented [H2]:** Why begin a sentence with 'but'? rephrase it to sound well

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Narrative is filtered through the expression of a pattern designer. The aesthetic attraction of a beautiful pattern is set to lure attention, and open the gate for a deeper thought, a story, an emotion, an opinion, a political or social standpoint, or a marketing message. The exploration of the design and communication of meaning through clothing will contribute to the existing knowledge base of human behavior theory by integrating aspects of symbolic interaction, consumer behavior, diffusion of innovations, and acculturation. The qualitative research framework of this investigation offers a fresh, rigorous, and in-depth understanding of this topic, as well as the development of new hypotheses valuable for future studies. Finally, the findings of this study would also serve teachers, students, and experts in the textiles industry as an important reference source.

> **Commented [H3]:** Dear, how is your research going to contribute to academia? You are rather telling us the significance of other people's work instead of yours.

1.7 Scope of the Study

This study explores textile designs as a communicating tool to curb the spread of COVID-19 in Ghana. The research will expand on the limited existing knowledge and measures government has put in place to curb the spread of the virus in the country by introducing communicating designs that will depict wearing of mask, hand washing and social distancing by the use of screen printing into locally manufactured fabrics and prints to enhance the education and safety measures to curb the spread of the virus.

1.8 Limitations of the Study

Due to the difficulty in collecting data, it was impossible for the researcher to involve many schools. Further, time limit for executing the study made this impossible. The study only examined few Senior High Schools as a case study. Applying findings of this study to other senior high schools must be done with extensive comparative analysis.

1.9 Organisation of Chapters

In order to provide sequential flow of ideas to the study, the study has been divided into five (5) main chapters. The study is organized as follows:

The first chapter contains the introduction, background which introduces the topic and touches on some of the issues with regards to the research topic. Review of available and Related Literature forms the second chapter. Thirdly, the method used in obtaining the textile designs for communication forms the third chapter. Chapter four contains the data analysis, presentation and discussion of the findings. Chapter five describes analysis and appreciation of design. Summary, conclusion and recommendations forms the chapter six of this study.

CHAPTER TWO

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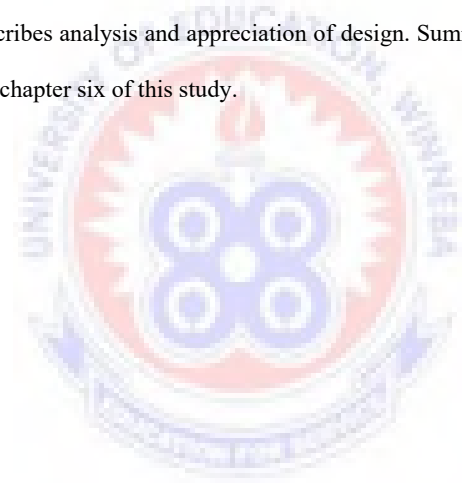
REVIEW OF LITERATURE

2.0 Introduction

This chapter presents the opinions of earlier writers on the subject matter by reviewing existing relevant literature on material management. Therefore, it will be a sieve of relevant material (s) on the subject matter.

2.1 Background of COVID-19

Zhu (2020) stated that over the past two decades, coronaviruses (CoVs) have been associated with significant disease outbreaks in East Asia and the Middle East. The severe acute respiratory syndrome (SARS) and the Middle East respiratory syndromes (MERS) began to emerge in 2002 and 2012, respectively. At present, a novel coronavirus, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), causing the Coronavirus Disease 2019 (COVID-19), has emerged in late 2019, which has posed a global health threat with its ongoing pandemic in many countries and territories. Health workers worldwide are currently making efforts to control further disease outbreaks caused by the novel CoV (originally named 2019-nCoV) that was first identified in Wuhan City, Hubei Province, China, on December 12th, 2019. On February 11th, 2020, the World Health Organization (WHO) announced the official designation for this current CoV associated disease to be "COVID-19", caused by the SARS-CoV-2. The primary cluster of patients was found to be connected with the Huanan South China Seafood Market in Wuhan. CoVs belong to the family Coronaviridae (subfamily Coronavirinae), the members of which infect a broad range of hosts, producing symptoms and diseases ranging from a common cold to severe and ultimately fatal illnesses such as SARS, MERS, and, as of present, COVID-19. The SARS-CoV-2 (formerly 2019-nCoV) is considered as one of the seven members of the CoV family that infect humans, and

it belongs to the same lineage of CoVs that causes SARS; however, this novel virus is genetically distinct. Until 2020, six CoVs were known to infect humans include HCoV-229E, HCoV-NL63, HCoV-OC43, HCoV-HKU1, SARS-CoV, and MERS-CoV. Though SARS-CoV and MERS-CoV have resulted in outbreaks with high mortality, others remain associated with mild upper respiratory tract illnesses.

Anderson (2004) orated that newly evolved CoVs are thus posing a significant threat to global public health. Over the past two decades, the current emergence of COVID-19 is the third CoV outbreak in humans. It is no coincidence that Fan et al. predicted potential SARS- or MERS-like CoV outbreaks in China following pathogen transmission from bats. The COVID-19 that emerged in China spread rapidly throughout the country and subsequently to other countries. Due to the severity of this outbreak and the potential of spreading on an international scale, the WHO declared a "global health emergency" on January 31st, 2020. Subsequently, on March 11th, 2020, a pandemic situation was declared. At present, we are not in a position to effectively treat COVID-19 since neither approved vaccines nor specific antiviral drugs for treating human CoV infections are available. Most nations are currently making efforts to prevent further spreading of this potentially deadly virus by implementing preventive and control strategies.

According WHO (2020), domestic animals, infections with CoVs are associated with a broad spectrum of pathological conditions. Apart from infectious bronchitis virus, canine respiratory CoV, and mouse hepatitis virus, all other CoVs are predominantly associated with gastrointestinal diseases. The emergence of novel CoVs may have become possible because of multiple CoVs being maintained in their natural host, which could have favored the probability of genetic recombination. High genetic diversity and the ability to infect multiple host species are a result of high-frequency mutations in CoVs, which occur due to instability of RNA-dependent RNA

polymerases along with higher rates of homologous RNA recombination. Identifying the origin of SARS-CoV-2 and the pathogen's evolution will be helpful for disease surveillance, development of new targeted drugs, and prevention of further epidemics. The most common symptoms associated with COVID-19 were fever, cough, dyspnea, expectoration, headache, and myalgia or fatigue.

Arabi et al (2018) argued that, in contrast, less common signs at the time of hospital admission included diarrhea, hemoptysis, and shortness of breath. Recently, individuals with asymptomatic infections were also suspected of potentially transmitting infections, which further add to the complexity of disease transmission dynamics in COVID-19 infections. The current status suggests that the COVID-19 outbreak in China may progress as a severe epidemic or even a pandemic if proper emergency response procedures or preventive and control measures are not applied. Such efficient responses require in-depth knowledge regarding the virus, which currently is a novel agent; consequently, further studies are required. Comparing the genome of SARS-CoV-2 with that of the closely related SARS/SARSlike CoV revealed that the sequence coding for the spike protein with a total length of 1,273 amino acids showed 27 amino acid substitutions. Six of these substitutions are in the region of the receptor-binding domain, and another six substitutions are in the underpinning subdomain (SD). Phylogenetic analyses have revealed that the SARS-CoV-2 is closely related (88% similarity) to two SARS-like CoVs derived from bats (bat-SL-CoVZC45 and bat-SL-CoVZXC21). Furthermore, the SARS-CoV-2 is genetically distinct from SARS-CoV (79% similarity) and MERS-CoV (50%).

Michel (2009) stated that COVID-19 is associated with afflictions of the lungs in all cases and generated characteristic chest computer-tomography findings, such as the presence of multiple

lesions in lung lobes that appear as dense ground-glass opaque structures and occasionally co-exist with consolidation shadows (18). Some therapeutic options for treating COVID-19 have shown efficacy as in vitro studies; however, these treatments have to date not undergone any randomized animal or human clinical trials, which limit their practical applicability in the current pandemic (7, 9, 19-21). The present comprehensive review describes the various features of the COVID-19 (caused by the SARS-CoV-2) causing the current disease outbreaks, advances in diagnosis and developing vaccines and therapeutics. A brief comparison with the earlier SARS and MERS CoVs, the veterinary perspective of CoVs and this emerging novel pathogen as well as evaluate the zoonotic potential of similar coronaviruses and to provide feasible one health strategies for the management of this fatal virus (22-330).

2.2 Textile as a Communication Tool

Just like most African visual art forms, the African conception of cloth is created not just to please the eyes. The African cloth has its underlying symbolism, which actually takes its root in the peoples" values and belief system. In the African belief, cloth goes beyond mere covering of the body, to prevent exposure. There is this inherent aesthetics in its symbolic usage, motifs and colours, and the messages, cloth "speaks". It is in this context that Borgatti (2018) affirms that cloth use and cloth metaphors help to define concepts of humanity and culture, proper social relations and behaviour. In other words, cloth could have metaphorical imports. In the typical Nigerian culture, because of the importance cloth connotes, nakedness is used to denote different types of insanity. Among the Akan people of Ghana, the kente is more than just a cloth. It is a visual representation of the people's history, oral tradition, ethical beliefs, social value and political philosophy. In essence, cloth in this context is a wordless means of communication that is well

understood by those who use it. It is in this same context that the Anyi of Côte d'Ivoire have proverbs integrated in cloth.

There is no gainsaying that the Africans place great cultural value on cloth. In the African metaphorical analogy of the cloth, there is the visual and symbolic references to their cultural heritage. Indeed Africans are lovers of fabric. While some cloths are adorned for their simple beauty, others are held portent for the intrinsic aesthetics in its symbolic and metaphoric import.

The functions of art vary, depending to a large extent on the socio-cultural context. It is in recognition of this, that Danto (1981) expresses the metaphoric function of art. In his explanation, art functions as metaphor, so as to elicit the relationship between the viewer and the artist and the art piece. This is also against the background that metaphor as a figurative expression could be employed in other to elicit a deeper understanding of the meaning of experiences. In this same regard Feinstein (2018) has affirmed that through a paradoxical process which condenses and expands meaning, metaphor enables us to generate vivid associations, and develop insightful deeper and more personal understanding.

Specifically, the focus in this paper is the African conception of cloth. The intent here is to identify the underlying aesthetics in the visual and symbolic referents or attributes of cloth in the African culture. Essentially, an attempt is made to articulate and bring to fore, the metaphoric import in the African fabric, in its motifs, colours and usage. For instance, the patterns and colours of the Ghanaian kente cloth, reminds the Ghanaian of the values in his ethnicity, pride as a Ghanaian, and his African heritage. Significantly, cloth as metaphor in Africa generates deep insights and personal understanding while, in the same vein, it unravels some untold stories, and captures unspoken words. It is more of a situation where Africans enter into reciprocal, reflexive

relationships with their cloth (metaphor). Through this, they gain an in-depth understanding of themselves and of their concept of cloth.

The foregoing further articulates the function of metaphor as a "communication device". One that allows coherent "chunks" of perceptual, cognitive, emotional and experiential characteristics to be transferred from the known to the less well-known (Ortory, 2017). This view can be expressed using the "Kanga" wrap cloth from the East African Coast. According to Beck (2015), the "Kanga" cloth has proverbial texts printed on it. The topics of these proverbial texts usually centre on love, conflict and exhortative sayings. In essence the kanga cloth is used to communicate. Specifically, it is used either when a woman wears it for others to see, or when it is given to a woman as a gift on special customary occasions or festivals (marriage, end of mourning, birth of a child, religious festivals or as a farewell gift). In the opinion of Beck (2015) whichever way it is used, it is understood in the East African culture to communicate.

The kanga cloth is mainly used as a wrap for women. It is a gendered cloth, for the special reserve of the female gender. In this culture, kanga is said to have its connection with the identity of the wearer (women), through its relation to the body. The traditional kanga cloth is a rectangular wrap. It has images and proverbs printed on it. The proverbs are used to silently communicate messages between family members and outsiders. In this case too, it can also be said that the body serves as a tool, through which messages are disseminated. Where the woman is unable to read the proverbs, the images suggest the meaning and message. However, with modernity, the Western styles have infiltrated the traditional kanga cloth. The new kanga does not carry the typical Swahili proverbs that send messages. Thus, the modern kanga cloth may not be said to hold same cultural significance, as the traditional one. Still on the metaphorical import in African cloth, the Anyi people of Eastern Cote d'Ivoire, employ proverb names for cloth. Even before the advent of printed

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factory cloth, this group of people have always identified their traditional hand-woven cloth with proverbs or ajendera. In a research carried out by Domowitz (2019) on Proverb Cloth among the Anyi people, findings revealed that even with contemporary printed factory cloth, these Akan subgroup still use proverbs names. The whole idea, like it is with the Kanga cloth, is to send messages. Such messages on the cloth come with designs, and at times imprinted, proverb text.

Domowitz (1992) gave example of a funeral cloth that has the imprinted proverb, "Owu se fie" (death ruins the family). At the same time, the cloth has the design of a family portrait, surrounded with skull motifs. The Anyi cloth also has unspoken messages (proverbs not imprinted), but with visual designs. Importantly, such visual design communication can only be deciphered and understood by the people. This is in the sense that they have a reciprocal relationship with this cloth metaphor. In other words, the messages in the anyi cloth cannot be universally apparent.

Understanding of such messages comes with a certain level of competence in the culture, and an awareness of the local events of that particular cultural milieu. Domowitz cited some examples of the anyi cloth. There were cases where names of cloth are derived from anyi traditional proverbs. At other times, there are complex associations, where the names given to the cloth relate to the design as a symbol or metaphor for something else. All of these stem from the cultural values of the Anyi people. This further explains how cloth serves the purpose of identification and communication. In the assertion of Domowitz, (2019) "communicating by means of proverb cloth are like billboards, whose messages are repeated and reinforced, for as long as the cloths are seen and decoded".

Also important in communication via proverb cloth, is the underlying ethics in these messages. For instance there is the anyi cloth with Spider motif. The cloth is named "Spider". Its pattern stems from a local proverb which says "what one does to a cenda" (a small harmless spider), one

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does not do to bokohulu (a large spider considered dangerous)". The ethical message here is that a new wife should not be maltreated like the former. Such a message is actually intended for men who change women as a habit. Cole & Ross (2017) have noted that cloths are oftentimes purchased because of the proverb names they carry, not so much for the design. Like in most African culture, the Anyi proverb cloth forms a significant aspect of Anyi oral traditional.

Traditionally, the Ghanaian kente has always had its designs or weaving pattern expressed in proverbs. The "Adweneasa" pattern was exclusively for kings and made popular in the 17th century. "Adweneasa" in Akan language means, "my skill is exhausted" or "my ideas have come to an end". This proverbial pattern expresses metaphorically, the zenith in craftsmanship for a weaver. In the Akan culture, such pattern declared the weaver a master of his art, which is indeed a prestigious status. If the kente pattern is "Aberewa ben" then it took its root from the wise saying that, "a wise old man symbolized wisdom and maturity". Another notable kente proverbial pattern is the "pepe" meaning, "the balance of the weights of judgments knows no shame". In all of these, the proverbial patterns of the kente cloth have implication for the person of the weaver, as well as his status. It is on record that the largest known kente cloth (measuring 12 feet by 12 feet) is "tiri k)ro nk) agyina" meaning "one head cannot go into council". The cloth was presented to the United Nations by a former Ghanaian President, Kwame Nkrumah. The symbolism in a cloth of this nature is a reflection of its proverbial name and meaning.

Still in the Akan culture, the Adinkra is another cloth that serves as a communicative tool. This may not be farfetched from the fact that "nkra" in Akan language means message. The Asante tribe link such messages to the soul, with its source from the gods. Generally, all adinkra cloth carry symbols and motifs that communicate symbolic significance. Oftentimes, the message in the

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adinkra is a reflection of what the motifs represent or mean in the Akan culture. The adinkra cloth was originally used as a cloth to wrap around one when mourning.

Ghana is famous for its textiles and the unique designs. There are full number of vibrant colors and striking, repeating patterns. However, if you look more closely at the fabric produced in recent months by the brand Ghana Textiles Printing (GTP), you will notice something unusual about the patterns: They are padlocks, airplanes and keys. This series of designs were inspired by the coronavirus pandemic.

"It's a question almost everybody asked: Why did we even think about putting an image of something that is so bad into fabric' said the Reverend Stephen Kofi Badu, the marketing director at Tex Styles Ghana Limited, which produces the GTP brand. "As a company we are storytellers. We tell our stories through designs and colors. So in Ghana, almost every major thing that happens, we try to express that through our designs," he continued.

Their first series of COVID-19-inspired textiles was released in June 2020 and included motifs inspired by public health measures imposed at the start of the pandemic. Images in the fabrics include planes to represent travel restrictions and the grounding of flights, and padlocks to represent the lockdown. Another motif produced by Ghana Textiles Printing features eyeglasses, a nod to the frequent televised speeches of Ghana's President Nana Akufo-Addo, left, during the pandemic.Another striking image is a pattern featuring a round pair of glasses, a reference to President Nana Akufo-Addo's frequent televised broadcasts.

"Every time he comes to address the nation, he has...very small rounded spectacles that he wears," Badu explained. "For us, that became a key motif to represent his leadership and how he managed the whole COVID-19 pandemic in our country."

Badu says the designs have been popular, and speculates that people want a memento of this unusual time that they can look back on in the future when the pandemic is over. A new design from Ghana Textiles Printing depicts a tree with half of its branches withered and the other half alive and budding. "It's to say that, yes, today there is barrenness, there is drought, there is famine, and everything is withered. But there is hope that, once the rains come, this same tree will flourish," Badu explained. "It's a way of giving Ghanaians and indeed, the world at large, hope that we will survive this COVID." "People were just enthused about the whole idea of COVID-inspired fabric, and out of that curiosity people felt: 'Let me get a piece just to remember — to show it to my children, show it to my grandchildren, that once upon a time something like the COVID-19 pandemic spread across the world," he said.

2.3 Textile Design as a Communication Tool

Some existing literature on the origins and triggers of fashion trends suggests that such trends are usually influenced by the consumers themselves, as opposed to the fashion industry. Cho & Lee (2015), for example, propose that fashion trends are essentially representative of the consumer's change in emotion. They also stipulate in their paper that culture has had the biggest influence on fashion trends from the 1990s, as opposed to political, economic or even technological factors. Sproles (2018) on the other hand discusses two contrasting schools of thought: one that proposes that the fashion industry sets trends, and the other which agrees with the proposition that consumers play a greater role in influencing fashion trends.

Sproles (2018) first discusses the "powerful, almost dictatorial role" the industry has in setting trends, through media strategies that ensure wide publication of their designs, and also through retailers who stock these designs. He then goes on to contrast this theory, by proposing various theories which discuss the various ways in which customers influence and propagate trends. These theories include upper class leadership, where the upper classes in society set the trend for the masses to follow. He also discusses sub-cultural innovation, which occurs when a trend is initiated by sub-cultural groups like ethnic minorities and then picked up by the dominant cultural group, which then adopts the good aspects of the trend.

Globalization is also regarded as a possible trigger of fashion trends. On the effects of globalization on the fashion industry, Ann Priest (2015) discusses how societies are gradually becoming increasingly homogeneous, and how clothing retailers have consequently seen it fit to market clothing items that reflect this uniformity. The effects of globalization on the fashion industry can be summarized in a statement made by Tom Ford, former designer of Gucci and Yves Saint Laurent apparel: "Globalisation is inevitable " and: "the world has been united stylistically as it never was in the past. The entire world is watching the same films, listening to the same music and eating the same foods all at the same time. Our cultures are blending. Soon we will be one global culture" (Priest, 2015; pg 305).

2.4 Theoretical Framework of Textile Design as a Communication Tool

This section discusses different theories pertaining to innovation diffusion, which fundamentally seek to explain the reasons for the spread and adoption of new ideas or products. It then examines the various arguments regarding the modes of diffusion of fashion trends.

Diffusion of Innovations

A lot of the literature available on innovation diffusion define innovations in terms of technological phenomena. Daghfous et al. (2019) however propose that innovations are not necessarily of a technological nature, but rather of a "psychological and sociocultural nature." Their study concentrates on the role of individual/personal values in the adoption of new products. They assert that the adoption of a new product is dependent on the individual and on the set of values he/she upholds. In addition, the authors discuss the role of culture in the diffusion of innovations. They propose that consumers from different cultural groups and societies react differently to new products as a result of the differing values that are usually associated with different cultures (Daghfous et al., 2019).

Rogers (2015) however takes a slightly different stance in his exploration of the innovation diffusion theory. Unlike Daghfous et al. (2019), he does not focus solely on personal values or cultures as proponents of innovation diffusion. Instead, he proposes that an individual's perceptions of an innovation's attributes are what eventually determine the rate of adoption of said innovation.

He defines the rate of adoption as "the relative speed with which an innovation is adopted by members of a social system" (Rogers, 2015). The author lists five attributes which help explain 49 to 87 percent of the variation in rates of adoption with respect to new innovations. These are: relative advantage, compatibility, complexity, trialability and observability. Other factors he mentions in addition to these attributes are: the type of innovation-decision, the nature of the communication channels, the nature of the social system and the extent of change agents' promotional efforts.

However, considering Daghfous et al.'s (2019) claim that different societies react differently to new innovations, it is not farfetched to conclude that ultimately, an individual's values or the culture of a society do influence a person's perceptions of an innovation's attributes. Typically, personal values and culture help define what a person considers right, acceptable or appropriate.

Rogers' first two attributes relative advantage and compatibility serve as good illustrations of this assertion. He defines relative advantage as "the degree to which an innovation is perceived as being better than the idea it supersedes" (Rogers, 2015). In essence, in determining the relative advantage of an innovation, individuals measure the benefits associated with adopting said innovation as compared to an earlier innovation. The author gives examples of such measurable benefits as economic profitability and the social status conferred. Rogers (2015) also defines compatibility as the degree of consistency an innovation is perceived to have with respect to existing values, past experiences and needs. He suggests that innovations can be compatible with sociocultural beliefs, previously introduced ideas or the needs of the individual (Rogers, 2015).

Both attributes can be applied in justifying the suggestions made by Olshin (2006) and Patrick (2005), that the increasing use of African fabrics can be tied to efforts to reassert the African identity and express some sense of African pride. Globalization, which has fuelled the increasing acceptance of African culture by Western societies, helped alter perceptions of African traditions held in both African and African diaspora communities. Consequently more Africans are now giving prominence to and accepting and adopting indigenous traditions that were previously spurned. Thus, the relative advantage or benefit that such individuals get from patronizing African fabrics is the expression of African pride and the reassertion of the African identity. Likewise, the use of these fabrics is currently consistent and compatible with the beliefs and value systems of

these societies, which now place prominence on African culture; thereby explaining the increasing patronage of African fabrics.

The next three attributes Rogers describes are not as applicable to this study as the first two. Complexity he defines, as "the degree to which an innovation is perceived as relatively difficult to understand and use." He also defines trial ability as "the degree to which an innovation may be experimented with on a limited basis." The final attribute, which is observability, is defined as how visible the results of an innovation are to others (Rogers, 2015). It is however important to note that all these attributes are also measured from the perspective of the individual, which is thus consistent with the assertion by Daghfous et al. (2015), that the adoption of new innovations is dependent on the personal values of the individual.

The first of the other four factors mentioned by Rogers (2015): the type of innovation-decision, essentially implies that innovation-decisions that require individual involvement are adopted much faster than those that require organizational involvement. In effect, the more people that are involved in an innovation-decision, the slower the rate of adoption. With respect to the nature of communication channels, Rogers (2015) asserts that interpersonal channels result in a slower adoption rate as compared to mass media channels. The author goes on to propose that the nature of the social system with respect to the accepted norms and values also affects the rate of adoption of an innovation.

Finally, he suggests that the relationship between change agents and the rate of adoption is dependent on the stages in an innovation's diffusion process. The relationship is therefore not direct (Rogers, 2015). The author also discusses the effect of opinion leaders on the rate of adoption, suggesting that the greatest response to efforts made by the change maker occur when an opinion leader adopts the innovation (Rogers, 2015). This proposition can be related to the

influence opinion leaders like Dr. Kwame Nkrumah had on fueling the acceptance of these fabrics and on generating a sense of African pride.

2.5 Identify Textile Design as a Communicating Tool in the Ghanaian Context

African textile designs and arts are representative symbols of African society. Some people and societies in Africa have developed symbols from proverbs, sayings, and king's quotation in a form of arts. Similarly, other ethnic groups also use the cultural landscapes, natural objects, or their innovative works in a form of arts for their contemporary designs. These symbols have been collected from various ethnic groups and then presented artistically through patterns for fabric decoration and design. Later, these design elements transformed and embedded on fabrics. The aesthetics value of these African textile designs have well defined in a form of design elements such as lines, curves, symbols or motifs (Okougha, 2010).

African textiles design originated from the cultural backgrounds of 55 African countries and more than 800 linguistic groups. The continent has diverse physical environments ranges from mountains to arid deserts, Great Rift Valley and rain forests. These entire physical environments will determine what African people can design and dress beside the influence of missionaries and explorers. These cultural and environmental differences did not bring a difference, rather contributed for the foundation of flame buoyant styles, beautiful cultural dressing, wonderful fine arts and traditional crafts of present day African textiles (Akinwunmi, 2017).

The arts and aesthetics of African textile have been appreciated by a lot of scholars and used as inspiration for their works. Upon getting motivation from African arts, Picasso had step up his works and modernizing western arts through African touched inspiration. According to Picasso, most present-day western arts were sourced from African origin and he had started a revolution on

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western arts. Matisse also had discovered that African textile arts were embedded uncovered abstract on its geometric appearance that thought to bring aesthetics value. Raffia design style of Congo people has the main input for his studio decoration and carpet design ever appreciated in his design collection. Designers such as Modigliani and Giacometti were also fascinated by African design style, decoration and selection principles that have helped them for collection and developing an extraordinary textile design and fashion appreciated in their ages (Aremu, 2019). These designers and artist enthusiastically impressed by the aesthetic value of African arts, motifs and patterns for getting idea. The symbolic representation and its techniques are very fascinating for the scholars. Later, the extraordinary legacy of these arts with its explosive color and complex graphic patterns has been used as source of inspiration or direct input of their design.

There are various ways to design patterns from different ethnic symbols mentioned earlier. To develop design based on African style under given condition seams easy, but this is not always true. Collecting information such as, type of motifs, power full patterns and coloring styles along its basic usage are things to be considered. The color selection and its combination on pattern is a bit hard (Aronson, 2018). Which can be obtained either through contrastive colors (hot and cool of equal strength) or by maintain the equality of dynamics in phrasing of lightness and darkness in colors. Thus, this selection must be in line with chosen type of usage, like as ceremonial clothes, daily based dresses or other purposes in order to bring ever lasting impression.

To produce a unique weaving style based on African design, first individual fabrics of similar design and colors are woven in strips. Then the individual strips bound together to create the required continues woven fabrics. These methods of weaving deliberately done to produce uneven kind of individual weave; very flexible to create required color mix and intricate design. Lastly, sewers bring multitude of weave strips to a single unified design by sewing together.

Design is an art of putting thing around us artistically on paper and it's then transformed to fabric. This art sometimes conveys individual creativity on different circumstances. It requires the ability to arrange relate object such as lines, angles, spaces, shapes, colors, texture and other hidden values that come together to exemplify the designers abstract. The balancing principles, the movement of lines, style of determining repeating pattern, emphases and contrast hues together with unity are what make designers who they are. It is from this point Wilson said; having the idea how to design and use properly design tools for representing our own idea on paper is not enough in the design work (Audu, 2018) but also requires understanding of African culture.

Designers understand that every elements of a single pattern has special meanings for its unity. Thus arranging and organizing these elements of pattern makes more meaningful for their work. This works can be categorized as balance, rhythm, proportion, emphases and unity. Balance is the act of putting two segments right and left to each other and maintains their equilibrium position from each other. Keeping the relative size of designed object as compared with the whole system in a given standard system goes to proportion. Rhythm is a regular arrangement of motives in a given pattern. This starts from the correct putting of lines symmetrically to each other on the other side of the design. Similarly, an emphasis is the point of focus in the drawn paper. This is sometimes called point of attention because this is the point that attracts the viewer. If the object arranged sequentially and orderly manner it will control the views attention and used as feedback for designer (Aremu, 2019). Otherwise, it tells us something wrong in the system. Similarly, unity is used as a check point for designers. It tells designer's whole composition, summery of all combining points as a whole and harmony of works in a design (Dzobo, 2018).

The concept of creating motifs and its account on African textile cloth is not only to please eyes and the viewers. But, it is also used as medium of communication in a society that conveys spiritual

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values and beliefs from their ancestors. Bridget on his African textile study show that Africa clothes and their imported motifs define charity, culture, appropriate social relationship and their behaviors in a society (Asakitipki, 2018). Due to this deep rooted perception of cloth values in African society, design denotation has involved a lot of actors in the field and has handed over through descendants.

Color and aesthetics are the primary task of designer to understand and justify its sensitivity in African society. Most patterns on use generally characterized by high resonance use of colors. This can be achieved through use of bold colors. There are two ways to preserve these loud colors (full sonority of colors) in African textile pattern. Firstly, through using contrastive colors, hot and cool, of equal strength. Secondly by maintaining the proportionality values between lighting and dark in a given dynamics; that is rephrasing of light and dark colors until we achieve the desired mix.

Colors on fabric and cloth in the African context possess important meaning. The meaning varies from one other as we go along different ethnic clothes. Yellow represent fertility (exemplified by eggs or yoke), green stands for renewal and growth that has seen in plants by representing birth and death. The sky is blue, hence blue indicate presence of God. It refers the spirit that one keeps them in harmony. Red denotes political, power and strength while black stands for seriousness and unity. It is from this point that Bright illustrated colors on his study of "An appraisal of the aesthetics dimensions to the African philosophy of cloth" across some ethnic groups. Generally, colors have important meanings in societies, because they might associate with history or has their own short-coming. For instance, sometimes blue and grey colors are associated with cold while red and orange are linked with warm weather. Hence, colors communicate with people about the time of the day, temperature and weather of the year. Thus, estimating color and its trends are very

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important in the fashion industry because color play a great role with changing seasons (Asakitipki, 2018).

2.5 Identify Textile Design Methodology in the Creative Process

The external business environment has a great influence on growth, profitability and performance, many important events such as wars, economic cycles and to the emergence of new technologies has caused differences in the expansion or even the closure of the enterprises (Hoskisson, 2019). It is also important to mention that the competitive advantages of the twenty-first century no longer follow the same parameters of the past where large-scale production and the use of large advertising dollars it generated a differential.

The business environment is dynamic, competitive strategies analyze the information of both influences and internal and external pressures. Thus, factors that could help get the innovation process over time can be a way to meet environmental needs. In this sense, the creative process gives answers the need for competitive advantage market appeal. Several social, environmental and technological changes experienced in the last decade led demonstrations in the market. Concern about the environmental impacts caused by man is seen by the world. In this respect, companies are also concerned about possible environmental damage, search for to contribute to reducing this impact with proposals to improve the production processes.

The spread of human capital has led companies to encourage knowledge sharing, learning and planning strategies for organizational knowledge management. According to Kalkan et al. (2018), human capital appears the first time mentioned in 2019 by John Kenneth Galbraith, but the concept as we understand it today was reported by Tom Stewart, in 2015, when published in Fortune magazine article "The intellectual power: As the intellectual capital is becoming much more

valuable Americas". The human creation is an attribute of intangible resources within the globalized economy Corporation's success depends on this type of resources than their physical assets.

However, in order to increase the competitiveness of countries and companies, it is important to create conditions for people not to leave with their human capital and potential abroad, but they are motivated to remain in their country. Increasing performance and approaching to economic growth it is also important to draw attention to the effective use of macroeconomic and company production inputs, hence human capital. The human capital includes the natural ability, innate and acquired skills, knowledge, experience, talent, inventiveness. These characteristics are all components of the human capital. The essence of creation, Increasing the value and effectiveness of human capital, is spending money now but expected benefits will flow in future (Kucharþíkováa et al., 2018).

Organizations use the human potential as an increase in productivity, competitiveness, and creativity. The human knowledge, according to Hitt (2018), is a difficult intangible asset to be understood, measured, bought and imitated, for this reason, the company creates a dependent relationship and this, in turn, begin to understand that the more intangible is the resource more sustainable is your competitive advantage. In this context, the human creative process has been one of the factors driving the growth and development of mankind. The process of creating part of a series sponsored by thoughts, aspirations, and information problems through reasoning results in actions, reactions and decisions. The history of human evolution has shown the various stages of the development process in line with human creativity, man evolves through various discoveries and inventions.

The man has his creative expressions through individual, social and psychological needs. The need consists of a motivating factor that drives to the pursuit of knowledge, problem-solving and satisfaction.

For Lobach (2017), "the conduct of the human being is also driven by multiple and varied needs. The appearance of needs is not always logical, especially when other activities or processes have an occasional preference". The need to satisfy demand, since the aspiration is the spontaneous desire to get something that comes from the idea or view. Aspiration is the desire to get something that can be achieved or not. The needs and aspiration monitor the evolution of technology, information tools, and economic development. Over the centuries, the needs in their evolution have been accompanied by the development of tools, methods, and systems. The constant evolution through research and events show that innovative creativity has played a key role. In this sense, the methodology of the studies for the development of the creative process inserted a logical and rational thinking in human evolution. The development of human creative process has also been marked by several frustrations, problems in the development of creativity and innovation, is a constant.

Several scholars and researchers have been affected by creative inertia, inability to expose the ideas, fears, lack of innovation or even problems that seemed insoluble. Currently, it has been no different, diverse reasons hinder creativity, this has been discussed in various areas of study. Due to technological advances and globalization, the market is increasingly demanding, encouraging the search for methods and techniques for the creative incentive, innovative and inventive. To meet this demand, arise methodologies, techniques, and tools that help to systematize the creative process of logical form.

According to Lobach (2018), the creative process begins with the research of customer needs and aspiration that turned into ideas turn into products or services.

Mete (2016) discussed the ways to develop the creative process: Although designers choose a marvelous source of inspiration, it gets nowhere if the designer cannot bring it to reality or interpret it appropriately. However, finding the right source of inspiration is not enough to be creative or not so often a matter of inventing something totally new. In order to increase designer's originality and creativity, designers can seek new ways of seeing old and familiar things, new ways of using old, familiar media to increase their pool of ideas.

There are several kinds of creative processes in general; creative processes are developed for the generating idea. The goal is to increase the ideas and thoughts in order to get an answer. Many problems can be solved using methodologies and techniques that stimulate the creative process. Several studies have been conducted to define a better way to create a product, the ways and methods differ, but in general, all looking for a way to contribute to the improvement of the product.

According to Roy (2018), different methods of product concept testing aim to identify optimum product designs. Conjoint analysis, which was introduced later in comparison to other traditional concept testing methods, has outperformed other methods of product concept testing. This is because conjoint analysis not only chooses optimum designs but also determines utilities of the levels of the product attributes that form the product design. The systematic construction of a creative process through techniques aims to solve or even stimulate creativity. Creativity consists of a result of thoughts, stimuli, problems, and information. This makes creativity result of a systematic process of thoughts, techniques, and tools.

The systematic process by a technique can a set of actions directed to obtain a product or a design. According to Mete (2016, our translation), the design is divided into: Project carried out by the man in goods and services is divided into two main categories: sensory and behavioral. The sensory project is perceived through the senses and is classified as visual, auditory, olfactory, tactile and gustatory. The behavioral project is planned action. Many products, however, include aspects of both, because the design can be perceived by the senses, and then interpreted behaviourally. A fashion show, for example, includes many sensory and behavioral projects. The creative process has to observe the customer need working both the sensory desires as the behavioral.

According to Back (2018), the barriers of creativity occur in habits, reactions, prejudices, locks that reduce the creative potential, suffocating or reducing the ability of the individual to create. These barriers of creativity must be overcome to get the creative process, in this sense several techniques that stimulate can be used to eliminate the problem. The process consists of a rational structure defined for analysis and creative problem solution, allowing you to explore ideas and increase in a number of ways the process. To encourage creativity, propose the use of research methodologies and techniques, consisting of the area strategies design used the methodology for product development, methods such as: Axiomatic Design, TRIZ, value Analysis, morphological and another framework, to the creative process. The development of these methods is based on a common factor analysis of customer needs. The process for the development of these methodologies is intended to analyze the functions required to meet customer needs. In this context, it appears that the methodological issues that underpin the creative process can be clarified if there are tools to promote the adequate use of concepts that within their expectations, conflicts, and interests. Textile products have evolved a lot with the new technologies, the research on the use of new materials and treatments. This requires new dimensions in creativity and product

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innovation. The techniques employed for innovation and creativity in the textile industry has modified the methodology and created new tools for troubleshooting. Several concepts, techniques, and methodologies have been applied in product development. Although, innovation and creativity are present in products, processes that are developed yet they have many activities that are manual.

2.6 Identify the Effects of Textile Design as a Communicating Tool on the Awareness of COVID-19 in the Ghanaian Society

Art in Africa has always been a reflection of the culture of the people. The term 'culture' refers to the language, beliefs, values and norms, customs, roles, knowledge, skills and all other things people learn that make up their 'way of life' 'especially' dress (UNESCO, 2018). These various art cultures have majorly been considered by art historians or ethnologists in their stylistic forms and aesthetic peculiarities (Banjoko, 2019), apart from their essence and relevance to the society.

According to Adejumo (2018), an ideal art form is universally communicable. Kente, a colourful fabric of gold, yellow, red, black, green and blue, is an intricately designed piece of fabric, and a functional art that conveys messages about the historical, cultural landmarks, philosophical thoughts, religious and moral values of society (Leuzinger, 2017). Traditionally, Kente cloths were used only by people of certain status. The rich Ghanaian royal costumes, with heavily decorated clothes made of gold string patterns, coral beads and embroidery, were worn by their kings and chiefs to communicate their wealth and status to the world. This Ashanti Kente, also served as insignia of particular groups of people in the society. The King of Njowa of Bamum, of Cameroon in his kingly attire seated on the throne with his chiefs flanked round him.

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Today, the Ashanti of Ghana wear kente cloth outside the royal court. Men wear kente by wrapping a piece of cloth; on average of 8 feet wide by 12 feet long, around themselves, leaving the right shoulder and hand uncovered, while women wear it wrapped round their body with or without a blouse and in recent times, kente, are sewn into different styles e.g skirts and blouses, suits/jackets, on academic gowns, as clerics vestments, etc. In fact the styles and uses of kente cloths are unending, with various creative models. Aso oke, a traditional cloth of the Yoruba of South western Nigeria, is portrayed in three main designs; etu, which is a dark blue indigo dyed cloth, sananyan, a brown cloth woven from the beige silk of the Anaphe moth and alaari, which is woven from cotton fibres were also the preserves of the kings and nobles. It was recorded that the Olubadan of Ibadan (a prominent Yoruba king) at a particular time banned his chiefs from wearing aso oke.

Aso oke sewn in agbada, buba and sokoto was one of the insignia of the Kings and chiefs in the traditional period. However, it still serves the same purpose with its heavy embroidery work, but now it is available to those who can afford it. However, different styles of dress are now produced with various types of fabrics. Aso oke in the contemporary times is worn during major events such as naming ceremonies, engagements, weddings, house warming and funerals. Aso oke was mainly sewn into traditional dress. They are now used as muffler over dress for award in ceremonies and recognition, and as tops over trousers for personal branding and unique identity. The celebrants are usually distinguished from their guests by their mode of dressing (Adejumo 2018).

Traditionally, Bambara (Bamanan) women of Mali, as well as those of the Minianka, Senufo, Dogon, and other ethnic groups, produce Bogolanfini, mud cloth for important life events. Men, especially hunters, wear it for hunts and celebrations. Men's shirt may be white, indigo or brown in colour. If the shirt was for hunting it would be brown and adorned with amulets, horns and other traditional medicine to help improve the hunter's effectiveness. In the democratic republic of

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Kongo, nganga, a diviner wears a costume covered with many symbolic objects, such as wild animal skins, bird feathers, leopard teeth, bells and anything else that is unusual. Today, mud cloth is readily available for sale in markets for men, women and others from outside of the culture. The Yoruba people of Nigeria also have particular dress for different works. The cloth for the farmer is different from the hunter, and also different from those worn for war (Adejumo 2018).

Renne & Agbaje-Williams (2015), while emphasizing the essentiality of Textiles observed that: "The pervasive use of textiles as dress, as altar cloths, and as sacred objects, in religious worship is expressive of the character of ìwà of persons and objects associated with them, as Pemberton has observed. Yet other, more general, characteristics of cloth also contribute to their appropriateness as vehicles of religious belief and practice."

It is expected of the African to preserve relationship between human and cosmic (celestial) realm. A lot of Yoruba religious textiles, Country cloth of the Mende in Sierra Leone, Ukara cloth of the Igbo and a host of other cloths and dress from Africa, perform religious purposes and are repository of supernatural powers. The African life is wrapped in religion (Hackett et al., 2018). This explains why the whole community faithfully carries out all rites and rituals connected with rites of passage such as in birth, puberty, marriage, death and life after death. These ceremonies symbolize religious values which govern the family and society (Idowu, 2016; Ejizu, 2019).

Ukara cloth is one of the textiles that show how leadership regalia often transmit the ambivalent and dangerous qualities of the wilderness into symbols of power. The Igbo people of Southeastern Nigeria produce Ukara cloth, covered with nsibidi symbols and motifs, which was initially meant for the Ekpe society. Ukara cloth, an indigo stitched and dyed cloth is significant to the people of Igbo land. The cloth is traditionally used as either a wrapper, worn by high- ranking members of Ekpe group who often custom; designed it, or as backdrop in the throne; rooms of chiefs and kings

(Wikipedia, 2018). It also features in some masquerade costumes, such as used by the Nkanda. For the burials of its members, the society would erect a tent-like structure, and the walls made of ukara cloth in the deceased member's house. When it is hung in Ekpe lodges, it serves to demarcate the boundaries between the initiated and the uninitiated, hiding the source of the 'leopard voice' (Ajibade, et al, 2018).

This large rectangular cloth is divided into seventy two or eighty squares, superimposed by three to five large stylized animal images (Chuku, 2015). The squares or rectangles are composed of four design types of concentric rectangular boxes with various 'chequered' patterns, representational motifs; such as fish, scorpions, crocodiles, hands in friendship, war and work, masks, moons, and stars are dyed onto ukara cloths, which are symbolic representations of the repository power of the society (Cole & Aniakor, 2016). Other symbols include abstract or geometric signs from secret writing systems known as nsibidi.

Traditional African writing system, such as nsibidi symbols have continued as source of inspiration for many Nigerian contemporary artists like Victor Ekpu, who's highly lyrical and closely-scripted work (http://africa.si.edu/exhibits/inscribing/nsibidi.html) is shown in. Frequently during public ceremonies one can see evidence of imported and indigenous modes of dress as well as masked leopard representations. During ritual ceremonies the people line out dramatically with nsibidi-(http://africa.si.edu/exhibits/inscribing /nsibidi.html) woven ukara cloth. The Ashanti religion is an amalgamation of the spiritual and the supernatural powers (http://www.africancraftsmarket.com/Ashanti_people.htm). There exist various religious beliefs associated with ancestors, higher gods, or 'abosom', and 'Nyame' the Supreme Being of Ashanti; these are embedded in art forms particularly in clothing and textiles. In addition these are

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variegated patterns of weaving with various distinctive names. Frequently the pattern symbolises the social status or clan or the sex of the person wearing it.

The Dogon people of Mali cherish their traditional cloth so much that they have a proverb that shows the importance they attach to it. They assert that 'to sell the family's cloth is to sell the family's value' (Perani & Wolff, 2019). Almost in all African countries the value of cloth and textiles is exhibited. The Yoruba will say eniyan l'aso mi equating the value of cloth to human beings. The ubiquitous use of family dress or aso ebi is of relevance in this discussion. Ajani (2017) critically examines the persistent use of a Yoruba cultural dress, aso ebi. Aso ebi practice is a cultural tradition that has endured despite modernization, among the ethnic groups in Nigeria. Aso ebi which means family cloth among the Yoruba, was practiced at onset among the families of the Yoruba and originally meant to be a family uniform to enable the quests to identify members of the family during occasion. However he discovered in recent times, that it has diffused into other groups in Nigeria. 'Aso ebi practice is a popular trend that has taken over the Nigerian fashion scene' (Ajani, 2018). He found out that aso ebi dresses are mostly made from aso oke, java, Ankara, silk, George and guinea materials.

In visual arts, aesthetics, emotive response, provenance, (the origins and context of the product within a body of work, a cultural and historical context), (Brown, 2018) and understanding of the product play a major role and have become a major thrust of the economic globalisation process in Africa (Onyeonoru et al., 2017). These products also have access to international markets through trade, and thus bring funds to individuals and the nations at large.

CHAPTER THREE

METHODOLOGY

3.0 Overview

This chapter discusses the various methods adopted by the researcher in searching for the needed information about the project. It is made up of the research design which principally looks at planning and organizing structures ahead of the study, library research which revolves around gathering information on what others have done or said concerning the research and population

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for the study This is followed by sampling which downsizes the population to a limited number and finally data collecting instrument and method of data analysis.

3.1 Equipment, Tools and Material

The tools and materials are described to show the role each one played in the execution of the project.

1. Digital camera

2. Squeegee

3. Coating trough

4. Stapling machine

5. Sand bags

6. Masking tape

7. Wooden frame

8. Developing box

9. Printing table

10. Fabric

11. Printing paste

12. White glue

13. Sensitizer

14. Organize

Digital camera: It is a piece of equipment that takes video or still photographs by recording images on an electronic image sensor. It was used in capturing various designs effect for the project.

Squeegee: Is a tool with a flat, smooth rubber blade, used to remove or control the flow of liquid on a flat surface. It was used to pull the printing paste across the screen in order to make a print or spread paste through the screen onto the fabric.

Coating trough: It is a device designed for easy and comfortable handling while providing a smooth layer of emulsion on the screen. It was use to apply photo emulsion unto the screen surface.

Stapling machine: Is a machine that inserts staples into sheets of paper in order to fasten them together. It was use for pressing down the mesh to the frame.

Sand bags: It was use as heavy weight material which enables effective development during the usage of the light box.

Masking tape: Is a type of pressure sensitive tape made of a thin and easy-to-tear paper, and an easily released pressure sensitive adhesive use mainly in painting and manual screen printing. It was used to cover the edges of the printing screen to prevent any leaks during printing or check paste leakages.

Wooden frame: Four-sided rectangular frame on which the mesh or organdie was firmly stretched with the use of the stapler and staple pins.

Developing box: This is a large box usually containing a number of very bright fluorescent tubes. It was used in transferring the designs from the kodatrace onto the stretched mesh.

Printing table: It is a long and wide table padded heavily with thick felt, thin foam, rubber sheeting or synthetic leather. It was used as a padded table on which the printing was done.

Fabric: It was use as a material or substrate on which the designs were printed.

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Printing paste: It is a dye or thick substance with starch or printing gum to give a thick paste to prevent bleeding when applied in a localized area**.** The printing paste was used to decorate the fabric.

White glue: This is a thick viscous adhesive used for bonding. It was mixed with the sensitizer for coating the screen

Sensitizer: It is sodium or potassium dichromate powder or crystal which can be dissolved. The sensitizer was added to the white glue for coating the screen.

3.2 Research Design

According to McMillan (2008), research design is a plan for carrying out a study. Research designs are concerned with turning the research question into a testing project. The best design depends on research questions. The research design has been considered as a "blueprint" for research, dealing with at least four problems: what questions to study, what data are relevant, what data to collect, and how to analyse the results (Research-design, 2011). For the purpose of this study, qualitative research design was employed.

Marczyk, Dematteo & Festinger (2005), described qualitative research as studies that do not attempt to quantify their results through statistical summary or analysis but it typically encompasses observations and interviews without formal measurement.

To have had the focus of the study centered on observation and interviews, the research has been designed to follow the art studio based experiment approach which employs the descriptive observational study.

3.2.1 Descriptive Observational study

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Gay (1992) as cited in Oboshie Sai (2014), notes that the descriptive design rightly befits investigations concerning educational problems including assessment of attitudes, opinions, demographic information, conditions and procedures. The descriptive observational method has been adopted in this study to aid the researcher conduct a market survey on the awareness of COVID-19 and how printed fabrics can serve as a yardstick for educating and reducing the number of COVID infections in the country. This therefore led the researcher to analyse, describe, and interpret designs created.

3.2.2 Art Studio Based Experimental Method

Marshal (2010), describe art studio based experimental method as research which is rich with possibilities of contributing to the body of knowledge concerning creative processes primarily because it has its core from the making of disciplines. Art studio based research was therefore a necessity in conducting this research whereby the invention of ideas and production processes were executed solely in the studio by experimenting with the knowledge obtain in the observational study. The researcher therefore paid critical attention to the appropriateness of tools and materials available in the studio. The study focuses on using textile design as a communicating tool to curb COVID-19.

3.3 Library Research Conducted

Various libraries were visited by the researcher to obtain relevant data for the study. Secondary data collected from these libraries were mainly from documented sources like books, encyclopedias, dictionaries, journals, catalogues, and publications.

3.4 Population

Population is a term that refers to a group of people or objects of which the results of the study are intended to apply. According to Leedy & Ormrod (2005), it is of great importance to find the right respondents to get the right information for the attainment of research objectives.

The population targeted for this study comprised Medical Practitioners (Doctors and Nurses), Textile/Fabric Retailers and Inhabitants of Kumasi Metropolis (Kejetia, Adum, Ejisu)

3.5 Sampling

A sample is simply a subset of the population. The concept of sample arises from the inability of the researchers to test all the individuals in a given population. The sample must be a fair representative of the population from which it was drawn and it must have good size to warrant statistical analysis (Castillo, 2009).

Leedy & Ormrod (2002) explain that, in purposive sampling, people or other units are chosen to suit the purpose of the study. Certain elements of the study are deliberately on the judgment of the researcher.

As stated by Frankel & Wallen (2006), in purposive sampling, researchers do not study whoever is available, but use their judgment to select a sample that they believe, based on prior information, will provide the data they need.

Among the various sampling techniques, purposive sampling was employed by the researcher for the study. The importance of purposive sampling in this study was to select appropriate fabrics, ideas solicited and kinds of design effects that were suitable for creating patterns that could effectively communicate the need to curb COVID-19 and subsequently developing them unto screens for printing. Based on this, the researcher selected various types of elements and themes on the enhanced COVID-19 and hygiene protocols instituted by the government of Ghana. It was

also necessary to interview some textile/fabric retailers, medical practitioners and inhabitants of Kumasi Metropolis solicit their views on the need of developing these textile designs as a means of communication tool to curb the spread of COVID-19. Their in-depth knowledge gave the researcher some ideas and information that were relevant to the study.

3.6 Data Collection Instruments

Data collecting instruments are special tools used by researchers for the execution of plans towards the achievement of established goals. As a qualitative study, the data collecting instrument used in this research were observation and interviews. These instruments were used to obtain the necessary data from respondents.

3.6.1 Interview

An interview is a technique that the researcher used to collect data which involves questioning individuals or groups of respondents orally (Corlien, 2003). The interviews with which the researcher gathered information was structured interview with open-end questions. An interview as a research tool may range from structured interviews, in which questions are asked and the answers are recorded on a standardized schedule. According to Trochim (2001), the interviewer in direct interview has the opportunity to ask follow-up questions, interviews are generally easier for respondent, especially if information being sought is about opinions or impressions. This makes room for question modification to follow the line of conversation in an informal interview.

This helped the researcher to generate ideas and information on the topic. To create conducive atmosphere for the study, respondents were given the chance to express themselves in English and Akan languages. The answers provided by the respondents led to new information that was beneficial to the study.

3.6.2 Observation

The researcher obtained ideas and themes that served as motifs and surface designs and themes to be printed out on the fabrics so as to tell individuals the need to curb the spread of COVID-19. This gave the researcher the opportunity to gather design samples and created design patterns out of them. The researcher documented these activities, using the camera.

3.7 Data Collecting Procedure

Observation gave the researcher the platform to examine and assess the designs in print. The observational tool also facilitated analytical assessment of the possibility to use textile design as a communication tool to curb the spread of COVID-19.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS AND GENERATION OF TEXTILE DESIGNS

4.0 Overview

This chapter looks at presentation and discussion of the field research findings based on the objectives of the study.

1. Strategies government has adopted to curb the spread of COVID-19.

2. Develop textile designs to educate the public on COVID-19.

3. Evaluate the effect of textile design as a symbol to reduce the spread of COVID-19 (discussed in Chapter Five)

4.1 Strategies Adopted by Government to Curb the Spread of COVID-19

With the nature of Ghana's government, public policy mainly emanates from the Executive President at the center which is then translated to the regional and local government levels whose heads are appointees of the President for implementation. As a result, acknowledgement of the COVID-19 by the Executive indicates that the government is ready to respond to the crisis. It is as a result of this that the President adopted a televised address to the nation to update citizens on the measures put in place by the government as a response to the crisis. Critical to the fight has been the earlier admission by the President on the potential of the disease to wreak havoc if proper care is not taken. The early admission is evident in the President's first address on "the enhanced measures taken by the government" on 11th March 2020 when the country had not reported any case of COVID-19. In this address, the President outlined some strategies the country was adopting to even prevent the COVID-19 from entering the country.

Following the first reported cases on 12th March 2020, the government put in place several strategies to mitigate the spread of the coronavirus. Among these responses include limiting and stopping the importation of cases, detecting and containing cases, caring for the sick, social and economic responses, domestic capability, and deepen self-reliance (Agyemang-Manu, 2020). For instance, the Ghana Health Service reported that the first two patients who had tested positive were people who have returned from Norway and Turkey (Osei, 2020). After realizing that subsequent positive cases were also people who were returning from outside Ghana, the government on the 22nd of March 2020 placed a travel restriction by closing all borders (air, land, and sea) to human traffic as a means of limiting and stopping the importation of cases. It is important to emphasize that an Inter-Ministerial Presidential taskforce on COVID-19 was constituted with the President at the head and chairing most of the meetings.

In the area of health, the government's policy responses have come in different forms. The motive has been to ensure that the health sector and healthcare workers can manage the coronavirus situation in Ghana. According to the Health Minister of Ghana, Agyemang-Manu (2020), government interventions in the health sector have included insurance package and tax relief for frontline health workers, tax relief for all health workers for 3 months which have been extended for additional 3 months, setting out isolation facilities for mild cases, strengthen research and developing Ghana Centre for Disease Control and infectious disease centres and last the approach that has helped the country in the fight against the pandemic; the 3-T approach; tracing, testing, and treating.

4.2 Developing Textile Designs that will Educate the Public on COVID-19.

4.2.1 Exploration of Design Motifs and Textures (Sketches)

Having gathered substantial data above, the researcher proceeded with the development of design motifs and textures for the cloth print geared towards educating the public on curbing the spread of COVID-19. Series of designs were developed using the Adobe Photoshop software on a laptop. The following designs were obtained;
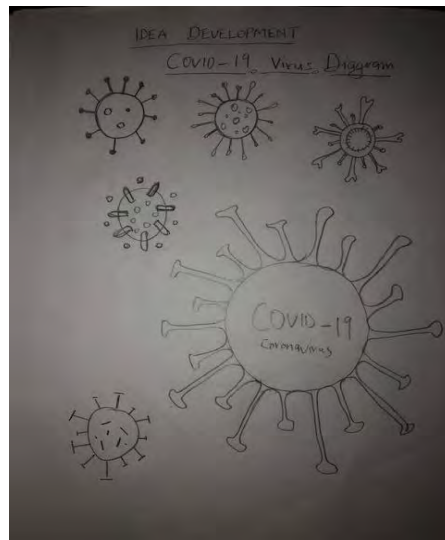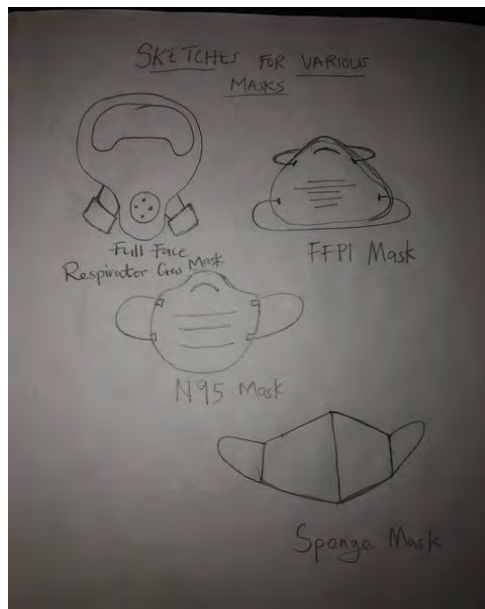
Plate 4.1 Idea Development 1

Source: Researcher's Creation (2021)

The researcher having the research topic in mind, developed some sketches with the aim of obtaining suitable motifs and textures for the cloth print. The above image in Plate 4.1 represents the COVID-19 virus diagram which was further developed in subsequent stages to obtain suitable motifs and textures for the cloth print.

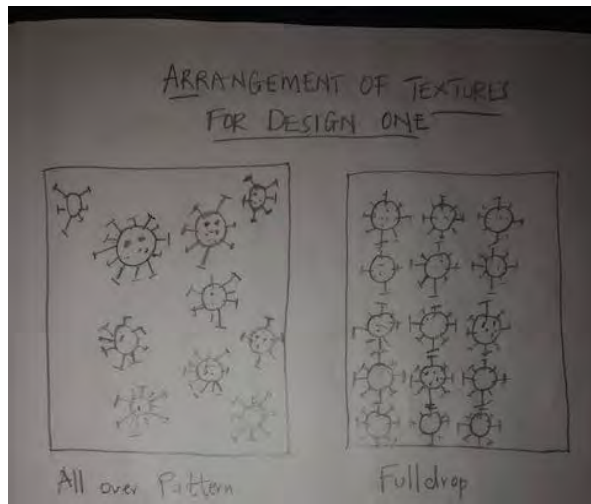**Plate 4.2 Idea Development 2**

Source: Researcher's Creation (2021)

The above image in Plate 4.2 represents the various types of nose masks which were further developed in subsequent stages to obtain suitable motifs and textures for the cloth print. Considering the nature of the topic, it became expedient for the researcher to use such items as nose masks, COVID-19 virus etc. to illustrate the motifs and textures of the cloths so as to effectively communicate the subject matter under review.

Plate 4.3 Idea Development 3
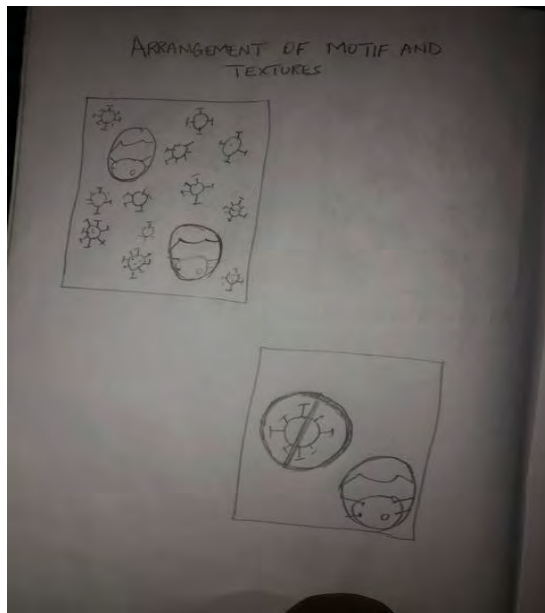
Source: Researcher's Creation (2021)

The above image in Plate 4.3 represents a sketch detailing the right usage of the nose masks so as to prevent the spread of the Corona virus

Plate 4.4 Idea Development 4
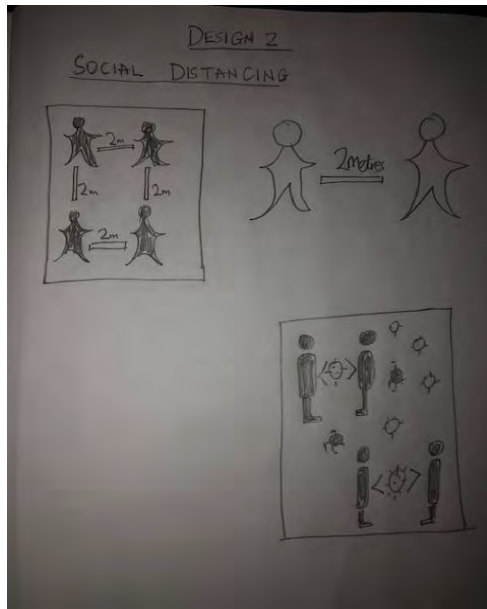
Source: Researcher's Creation (2021)

The above image in Plate 4.4 represents an arrangement of textures in two main types. One in all over pattern while one has been created in full drop. This enabled the researcher to make comparison between the two and decide on the suitable arrangement pattern for the textures on the cloth print.

Plate 4.5 Idea Development 5

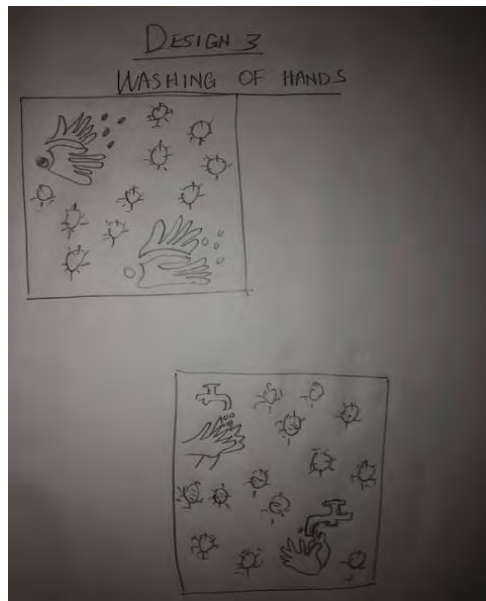**Source: Researcher's Creation (2021)**

The above image in Plate 4.5 shows the researcher's preliminary idea of the arrangement of both the textures and motifs in one repeat of the cloth. This ideation helped the researcher to visualise the final outlook of the cloth print if this arrangement sample was to be used.

Plate 4.6 Idea Development 6

Source: Researcher's Creation (2021)

The above image depicts a design concept based on social distancing. Social distancing as already observed in the study is one of measures necessitated to ensure the spread and curb of COVID-19. As such, it was imperative to use this concept in the cloth print as a way of emphasising on the need to adhere to social distancing so as to curtail the spread of the virus.

Plate 4.7 Idea Development 7

Source: Researcher's Creation (2021)

The above image represents a preliminary ideation for design concept 3 which details washing of hands. Washing of hands has proven an effective way to killing the corona virus. It is advised that as a way of controlling the spread of the virus, one should endeavour to wash his/her hands regularly for at least 30secs.

4.2.2 Exploration of Design Motifs and Textures (Digital)

Having gone through the stages of preliminary sketches on paper, it was now time for the researcher to use the Photoshop software to develop the sketches into perfect ideas for further transfer and printing on the cloth.
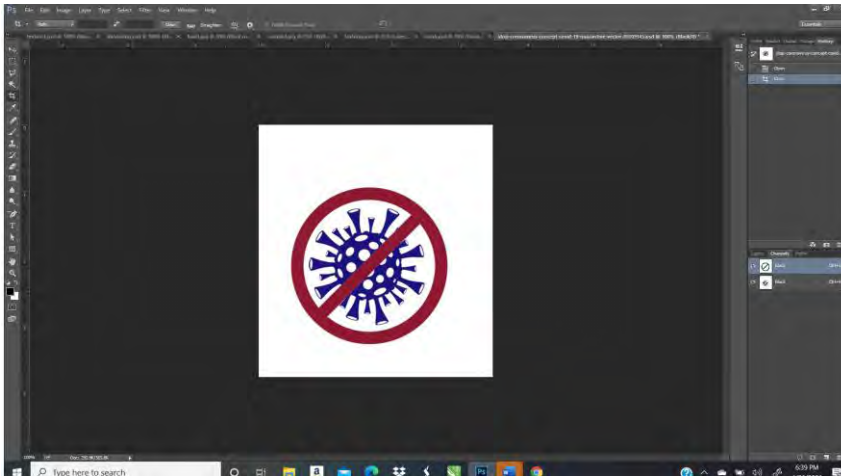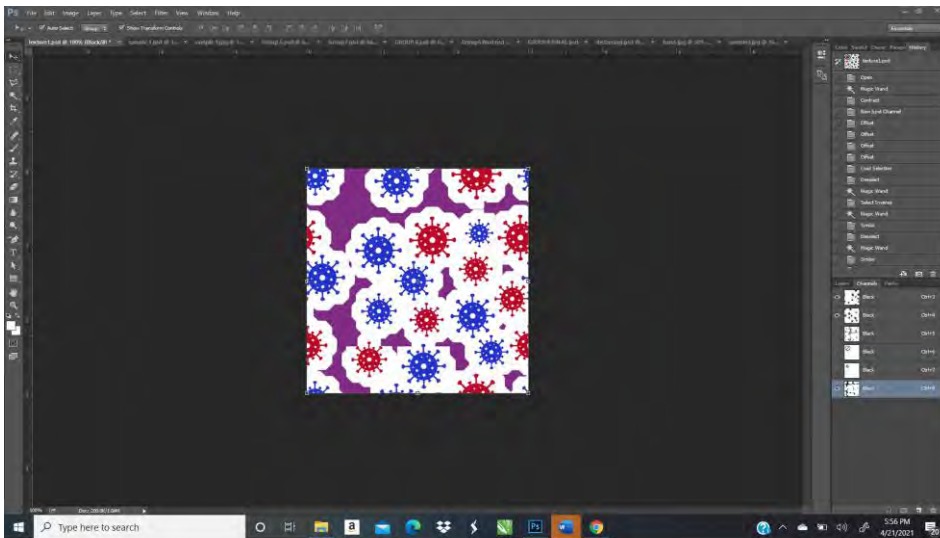
Plate 4.8: Photoshop Ideation 1

Source: Researcher's Creation (2021)

In Plate 4.8 above, the corona virus diagram created in Plate 4.1 earlier was developed and finetuned as illustrated above. Using the Photoshop software, this design was arranged and cropped to the size seen above. Deep blue and deeper shade of brown were employed. This pattern was then saved to be used in a repeated pattern to generate a complete cloth design at a later stage.
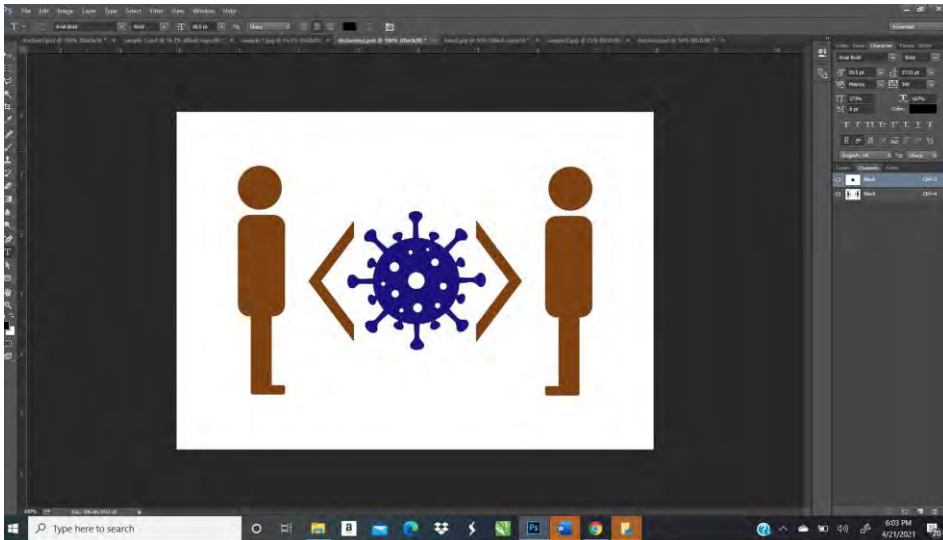
Plate 4.9: Photoshop Ideation 2
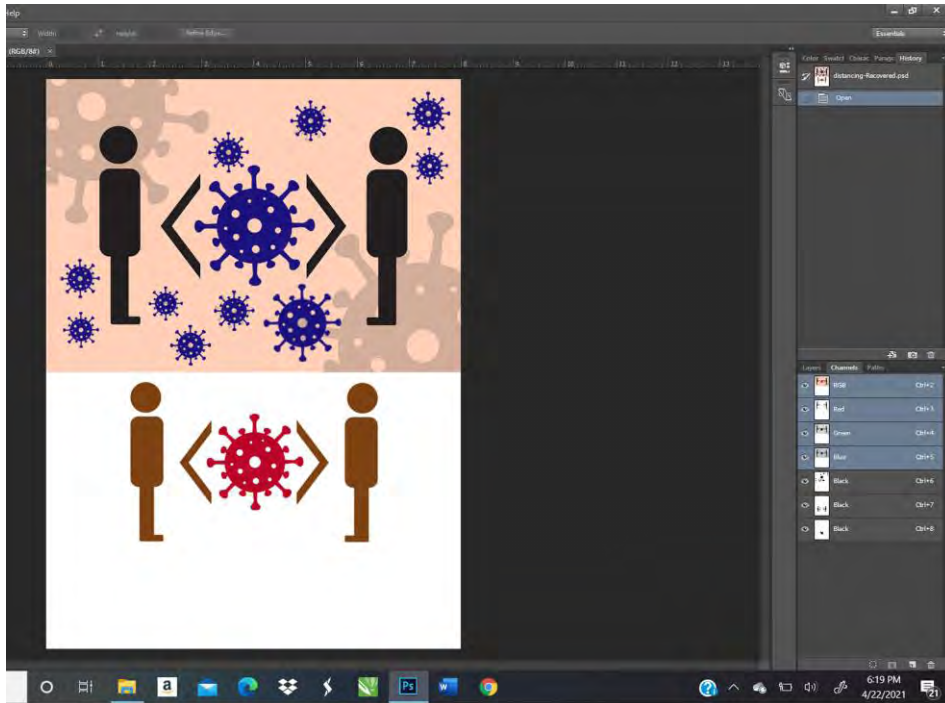
Source: Researcher's Creation (2021)

In Plate 4.9 above, the researcher utilised the corona virus image in a way that could arranged because of the textures of the cloth. This is in brown and blue colours. The Photoshop software enable the researcher to arrange these designs and crop it in a way that can be repeated in a "fill" pattern as the background texture of the cloth design. This design was similarly saved to be utilised in a later design of cloth.

Plate 4.10: Photoshop Ideation 4

Source: Researcher's Creation (2021)

In Plate 4.11 above, the corona virus diagram was used to depict social distancing as illustrated above. It could be seen that, the corona virus image separates Using the Photoshop software, this design was arranged and cropped to the size seen above. Deep blue and brown were employed. This pattern was then saved to be used in a repeated pattern to generate a complete cloth design at a later stage.

Plate 4.11: Photoshop Ideation 5

Source: Researcher's Creation (2021)

In Plate 4.12 above, the corona virus diagram was used to depict social distancing as illustrated above. It could be seen that, the corona virus image separates however this time round, there variations in the designs. Using the Photoshop software, this design was arranged and cropped to the size seen above. Deep blue and brown were employed. This pattern was then saved to be used in a repeated pattern to generate a complete cloth design at a later stage.

Plate 4.12: Photoshop Ideation 6
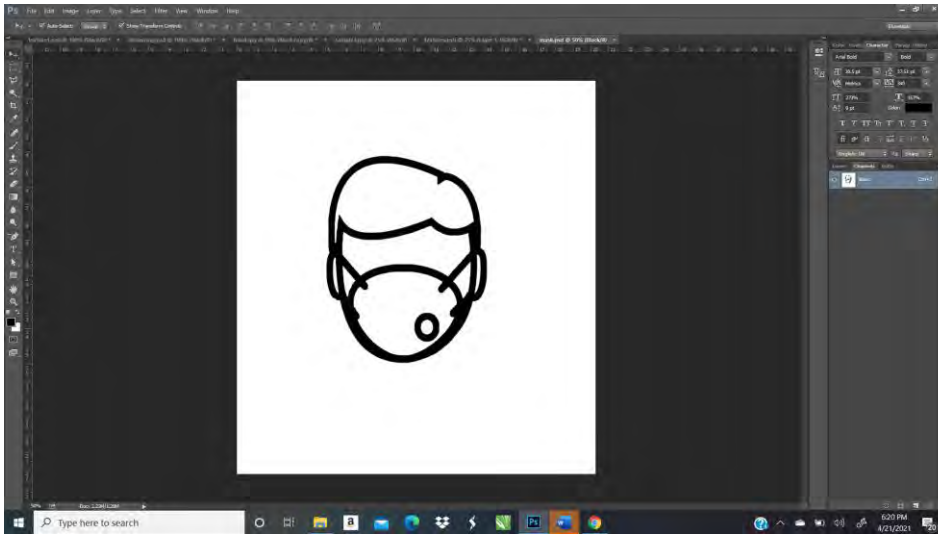
Source: Researcher's Creation (2021)

In Plate 4.13 above, the corona virus diagram was used as the textures of cloth design while two palms were used to depicts washing of hands which of course, is part of the measures to curb the spread of the corona virus. Using the Photoshop software, this design was arranged and cropped to the size seen above. Blue and brown as well as green colours were employed. This pattern was then saved to be used in a repeated pattern to generate a complete cloth design at a later stage.

Plate 4.13: Photoshop Ideation 7
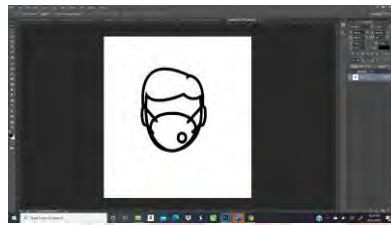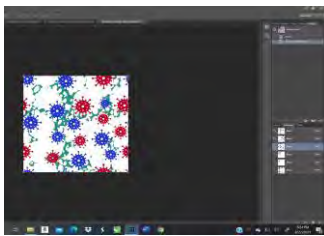
Source: Researcher's Creation (2021)

Plate 4.14 above represents an image wearing the nose mask in the right manner. Using the Photoshop software, this design was arranged and cropped to the size seen above. This pattern was then saved to be used in a repeated pattern to generate a complete cloth design at a later stage.

4.2.3 Development of Complete Cloth Design Samples Using the Motif and Texture Designs

Cloth Design 1

As depicted in the image below, Plate 4.15 which is Cloth Design 1, was derived from the texture on the left hand and motif on the right hand. This texture is labelled as Plate 4.10 in previous pages while the motif is labelled as Plat 4.14 in previous pages. Using the Photoshop software as usual, the researcher developed on the texture and repeated in a "fill" pattern to occupy the foreground of the cloth design. To commence this design, the researcher opened a blank A4 size paper page on the software interface. Prior to that, the motif in black was designed on a separate page, saved

and later transferred to the main A4 size work space. The motifs were first arranged as in the pattern in Plate 4.10. The researcher then copied the saved texture and filled it to the foreground of the design as seen above. The texture was repeated in an all over pattern. The various design tool options in the Adobe Photoshop interface made it possible for certain design techniques such as transforming, cropping, merging, distorting etc. to be effected.

Plate 4.14: Cloth Design 1

Source: Researcher's Creation (2021)

Cloth Design 2

As depicted in the image below, Plate 4.16 which is Cloth Design 2, was derived from the texture on the left hand and motif on the right hand. This texture is labelled as Plate 4.10 in previous pages while the motif is labelled as Plat 4.8 and Plate 4.11 in previous pages. Using the Photoshop software as usual, the researcher developed on the texture and repeated in a "fill" pattern to occupy the foreground of the cloth design. To commence this design, the researcher opened a blank A4 size paper page on the software interface. Prior to that, the motif in black was designed on a separate page, saved and later transferred to the main A4 size work space. The motifs were first arranged as in the pattern in Plate 4.10. The researcher then copied the saved texture and filled it to the foreground of the design as seen above. The texture was repeated in an all over pattern. The various design tool options in the Adobe Photoshop interface made it possible for certain design techniques such as transforming, cropping, merging, distorting etc. to be effected.
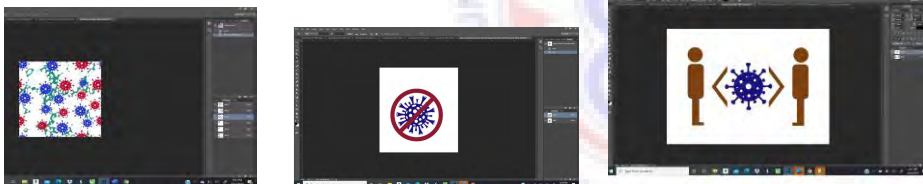
Plate 4.15: Cloth Design 2

Source: Researcher's Creation (2021)

Cloth Design 3

As depicted in the image below, Plate 4.17 which is Cloth Design 3, was derived from the texture on the left hand of the design. This texture is labelled as Plate 4.10 in previous pages. Using the Photoshop software as usual, the researcher developed on the texture and repeated in a "fill" pattern to occupy the foreground of the cloth design. To commence this design, the researcher opened a blank A4 size paper page on the software interface. Prior to that, the motif in black was designed on a separate page, saved and later transferred to the main A4 size work space. The motifs were first arranged as in the pattern in Plate 4.10. The researcher then copied the saved texture and filled it to the foreground of the design as seen above. The texture was repeated in an all over pattern.

The various design tool options in the Adobe Photoshop interface made it possible for certain design techniques such as transforming, cropping, merging, distorting etc. to be effected.
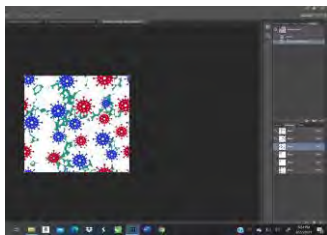
CHAPTER FIVE

ANALYSIS AND APPRECIATION OF DESIGN

Overview

This chapter provides analysis and appreciation of the final cloth designs. The appreciation process factors the aesthetic qualities with particular references to arrangement of motifs, textures, colour combinations and finally discusses the significance of the designs, and the impact they can have on educating the public on the spread and curb of COVID-19 in Ghana.

5.1 Analysis and Appreciation of Cloth Design 1

Plate 4.15: Cloth Design 1

Source: Researcher's Creation (2021)

The design in Plate 4.15 is the final cloth design for the populace on the spread and curb of COVID-19 in Ghana. It comprises the corona virus diagram which has been developed as the motif of the

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cloth. The corona virus diagram has printed deep blue with a red cross to indicate that the virus is deadly and must be stopped for that matter. An image wearing a nose mask has also been included as the motif to indicate the need for everyone to put on his/her nose mask at all times so as to avoid passing the virus on to others. In addition, there is an inscription emphasising the need to stop COVID-19 by constantly wearing nose masks. The composition and arrangement of the motifs together with the inscriptions are to lay emphasis in the identification of the cloth with the Corona virus coupled with an education of the public on the preventive measures to curb the spread of the virus. The cloth is also to serve as a reminder to the public that the COVID-19 global pandemic is very deadly and as such all concerted efforts ought to be made to prevent the spread of the virus. The cloth serves as reminder that, the onus lies on individuals to ensure strict adherence to government's preventive measures which comprises wearing of nose masks at all times when in public or in the midst of people.

The texture of the cloth design comprises the image of the corona virus diagram printed in red, blue and lighter shade of brown colours to create a unique design pattern. The colours are arranged and used in a way to create harmony and balance in the design. In a practical sense, corona virus diagram printed in different colours is to show that the virus could be adapted, contracted and transferred in many forms therefore, we ought to be very vigilant and observant to all the safety measures. It serves a seemingly endless source of education which helps to overcome the ignorance of the virus by creating enough emphasis and awareness of the virus in the cloth print.

On the other hand, the arrangement of the textures merged with the inscriptions "STOP COVID-19" and "WEAR FACE MASK" is to create a unique design concept that symbolises the essence in saving the lives of our loved ones, family and friends from the deadly virus.

The visible colours seen in the design are red, deep blue and a tint of brown colour. The reason for these colours stems from the fact that, the researcher used the red colour to represent danger. Thus, how dangerous and deadly the COVID-19 is to the human race as it is claiming many lives across the globe. Subsequently, the deep blue was used to create a sense of harmony in the design so as to compliment the red colour. Notwithstanding, the deep blue colour was used to represent stability, inspiration and health. Thus, there is the need for the public to take inspiration by way of education on the preventive measures necessary to curb the spread of the virus so as to ensure the stability of our health. Undoubtedly, COVID-19 has been a threat to the health of many lives thereby, causing a lot of instability and chaos. Hence, the blue colour was indicate that once we adhere to the preventive measure of wearing nose masks, we would be fighting against the spread the of the virus to ensure a more stable health and serenity of our world. The tint brown has been used in a harmonious way to represent reliability, stability.

The whole design and its concept have been adapted to suit both sexes. Thus, males and females. In all, the cloth print fits for all types of occasional, official and office wears and this is multi-utilitarian purpose for educating the public on the spread and curb of the COVID-19 pandemic in Ghana.

5.2 Analysis and Appreciation of Cloth Design 2

The design in Plate 4.16 is the second final printed cloth design for the Ghanaian populace on the spread and curb of COVID-19 in Ghana. It comprises the corona virus diagram which has been developed as the motif of the cloth as well as the virus diagram placed in between two individuals as way of emphasising on social distancing during COVID-19 era. The corona virus diagram has printed green with a brown cross to indicate that the virus is deadly and must be stopped for that matter. In addition, there is an inscription emphasising the need to stop COVID-19 by constantly ensuring ta least 2m distancing from each other (social distancing). The composition and arrangement of the motifs together with the inscriptions are to lay emphasis in the identification of the cloth with the Corona virus coupled with an education of the public on the preventive

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measures to curb the spread of the virus. The cloth is also to serve as a reminder to the public that the COVID-19 global pandemic is very deadly and as such all concerted efforts ought to be made to prevent the spread of the virus and one of the ways to do that is through social distancing. The cloth serves as reminder that, the onus lies on individuals to ensure strict adherence to government's preventive measures which comprises social distancing at all times when in public or in the midst of people.

The texture of the cloth design comprises the image of the corona virus diagram printed in brown and green colours to create a unique design pattern. The colours are arranged and used in a way to create harmony and balance in the design. In a practical sense, corona virus diagram printed in different colours is to show that the virus could be adapted, contracted and transferred in many forms therefore, we ought to be very vigilant and observant to all the safety measures. It serves a seemingly endless source of education which helps to overcome the ignorance of the virus by creating enough emphasis and awareness of the virus in the cloth print.

On the other hand, the arrangement of the textures merged with the inscriptions "KEEP 2m" and "SOCIAL DISTANCING" is to create a unique design concept that symbolises the essence in saving the lives of our loved ones, family and friends from the deadly virus by keeping our distance when in public places or gatherings.

The visible colours seen in the design are brown, green and a tint of brown colour. The reason for these colours stems from the fact that, the researcher used the green colour to represent nature, good luck and health. The logic here is that, COVID-19 is a threat to human lives and our beautiful world, however, adhering to the social distancing preventive measure would ensure that the human race's health is preserved and our world and environment is made a safer place to live in as we

take measures to curtail the spread of the virus. The tint brown has been used in a harmonious way to represent reliability, stability.

The whole design and its concept have been adapted to suit both sexes. Thus, males and females. In all, the cloth print fits for all types of occasional, official and office wears and this is multi-utilitarian purpose for educating the public on the spread and curb of the COVID-19 pandemic in Ghana.

5.3 Analysis and Appreciation of Cloth Design 3

Plate 4.17: Cloth Design 3

Source: Researcher's Creation (2021)

The design in Plate 4.17 is the third final printed cloth design for the Ghanaian populace on the spread and curb of COVID-19 in Ghana. It comprises the corona virus diagram which has been

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developed as the textures of the cloth as well as two palms put together to indicate washing of hands as a preventive measure to curbing the spread of the virus. The corona virus diagram has printed green and brown. The composition and arrangement of the motifs together with the textures are to lay emphasis in the identification of the cloth with the Corona virus coupled with an education of the public on the preventive measures to curb the spread of the virus through hand washing. The cloth is also to serve as a reminder to the public that the COVID-19 global pandemic is very deadly and as such all concerted efforts ought to be made to prevent the spread of the virus and one of the ways to do that is through hand washing. The cloth serves as reminder that, the onus lies on individuals to ensure strict adherence to government's preventive measures which comprises social distancing at all times when in public or in the midst of people.

The texture of the cloth design comprises the image of the corona virus diagram printed in brown and green colours to create a unique design pattern. The colours are arranged and used in a way to create harmony and balance in the design. In a practical sense, corona virus diagram printed in different colours is to show that the virus could be adapted, contracted and transferred in many forms therefore, we ought to be very vigilant and observant to all the safety measures. It serves a seemingly endless source of education which helps to overcome the ignorance of the virus by creating enough emphasis and awareness of the virus in the cloth print.

Additionally, the whole design concept is to create a unique design that symbolises the essence in saving the lives of our loved ones, family and friends from the deadly virus by periodically washing our hands with soap under running water.

The visible colours seen in the design are brown, green. The reason for these colours stems from the fact that, the researcher used the green colour to represent nature, good luck and health. The logic here is that, COVID-19 is a threat to human lives and our beautiful world, however, adhering

to hand washing as a preventive measure would ensure that the human race's health is preserved and our world and environment is made a safer place to live in as we take measures to curtail the spread of the virus.

The whole design and its concept have been adapted to suit both sexes. Thus, males and females. In all, the cloth print fits for all types of occasional, official and office wears and this is multi-utilitarian purpose for educating the public on the spread and curb of the COVID-19 pandemic in Ghana.

CHAPTER SIX

MAIN FINDINGS, SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

The main objective of this research was to explore and develop innovative ideas and design concepts to generate a novelty cloth for educating Ghanaians on the spread and curb of VOVID-19 in Ghana. The study commenced with review of related literature to the topic. Inferring from what others have done and said concerning the topic equipped the researcher to comprehend the topic better. Qualitative research which employed descriptive observational study and art studio base experimental designs with observation and structured interview with open-ended questions enabled the researcher to solicit useful information for the research. Through these research tools the researcher was able to discover the strategies adopted by the Ghana government in curbing the spread of the virus which was factored into the sample designs to come with the appropriate final cloth prints (3 Cloth Designs). Successful designs were printed, analyzed and appreciated considering aesthetic qualities with reference to arrangement of motifs, textures, colour combinations, discussed the significance of the designs, and the impact they could have on the society.

6.2 Conclusion

COVID-19 is a global pandemic bedeviling many nations across the continents. As a result, acknowledgement of the COVID-19 by the Executive indicates that the government is ready to responds to the crises. It is a result of this that the president adopted a televised address to the nation to update citizens on the measures put in place by the government as a response to the crises. In these addresses, all policies were outlined for various Ministries, Department, and Agencies to follow up with implementation. Critical to fight has been the earlier admission by the President on

the potential of the disease to wreak havoc if proper care is not taken. The earlier admission is evident in the President's first address on "the enhanced measures taken by the government" on 11th March 2020 when the country had not reported any case of COVID-19. In these addresses, the President outlined some strategies the country was adopting to prevent the pandemic from entering the country. Following the first reported cases on 12th March 2020, the government put in place several strategies to mitigates the spread of the coronavirus. Among these responses include limiting and stopping the importation of cases, detecting and containing cases, caring for the sick, social and economic responses, domestic capability, and deepen self-reliance.

For instance, the Ghana Health Service reported that the first two patients who had tested positive were people who have returned from Norway and Turkey (Osei, 2020). After realizing that subsequent positive cases were also people who were returning from outside Ghana, the government on the 22nd of March 2020 placed a travel restriction by closing all boarders (air, land, and sea) to human traffic as a means of limiting and stopping the importation of cases. It is important to emphasize that an Inter-Ministerial Presidential taskforce on covid-19 was constituted with the President at the head and chairing most of the meetings. In the area of health, the government's policy responses have come in different forms. The motive has been to ensure that the health sector and healthcare workers can manage the coronavirus situation in Ghana.

According to the Health Minister of Ghana, Agymang-Manu (2020), government interventions in the health sector have included insurance package and tax relief for frontline health workers, tax relief for all health workers for three months which have been extended for additional three months, setting out isolation facilities for mild cases, strengthen research and developing Ghana Centre for Disease Control and infectious disease centres and last the approach that has helped the country in the fight against the pandemic. The 3-T approach; tracing, testing, and treating proved

affective in the management of the virus. In Ghana's COVID-19 response, the President announced in one of his addresses on the 28th March 2020, the policy decision to impose restrictions on movement in selected District Assemblies embark on the 3-T approach. There was the possibility of creating innovative cloth designs to educate the populace on the spread and curb of COVID-19 IN Ghana. In all, three different novelty cloth designs were made by the researcher. On the whole, the project was a success and the main aim was achieved where, a unique innovative cloth was design to serve as a communicative tool to curb the spread of COVID-19 in Ghana.

6.3 Recommendations

Based on the findings of the study, the following recommendations have been made for consideration.

➢ It is recommended that, Ghanaians as well as all other institutions should adapt this unique cloth print as their official cloth to help the mass production of this cloth sample for the education of the general public on the spread and preventive measures in the fight against COVID-19 in Ghana.

➢ Further recommendation is made for future research into exploring innovative cloth designs for solving other health issues bedeviling the country. This is to help promote the use of textile design as a communicating tool for educational purposes on health and other social issues.

➢ It is also recommended that, government agencies should liaise with tertiary institutions concerned with textiles, in order for the textiles sections to produce customised cloth prints for such government agencies to serve as effective communicating tools for addressing issues of concern. This would help promote students' practical works and also our local textile production.

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