

UNIVERSITY OF EDUCATION, WINNEBA

**DESIGN HISTORY, PHILOSOPHY, AND AESTHETICS OF
ACADEMIC GOWNS OF SELECTED TECHNICAL
UNIVERSITIES IN GHANA**

PEGGY MAANSAH ANKAI HOWARD



DOCTOR OF PHILOSOPHY

2023

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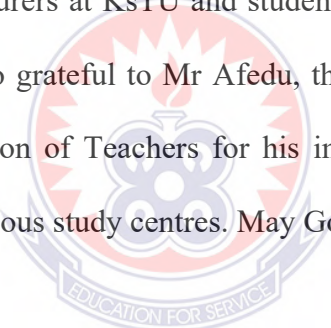
**A thesis in the Department of Music Education, School of Creative Arts,
submitted to the School of Graduate Studies in partial fulfilment
of the requirements for the award of the degree of
Doctor of Philosophy
(Arts and Culture)
in the University of Education, Winneba**

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DECLARATION

STUDENT'S DECLARATION

I, Peggy Maansah Ankai Howard, declare that this thesis with the exception of quotations and references contained in the published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE.....

DATE.....

SUPERVISOR'S DECLARATION

I/we here declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis/dissertation/project as laid by the University of Education, Winneba.

Prof. Osuanyi Quaicoo Essel (Principal Supervisor)

Signature.....

Date.....

Dr Emmanuel R. K. Amissah (Co- Supervisor)

Signature.....

Date.....

DEDICATION

This thesis is dedicated to my beloved family.



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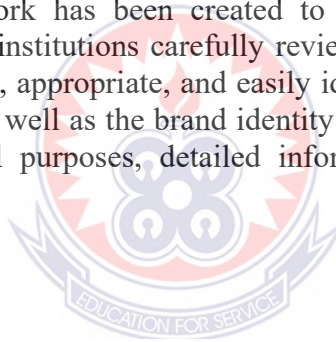
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ABSTRACT

Through multiple cross-sectional historical case studies, the study investigated the design histories, philosophies, and aesthetics of seven Ghanaian Technical Universities academic gowns. Maximum variation and expert sampling procedures were used to sample sixty-six participants. The data was analysed using narrative analytical techniques and a multi-method data gathering strategy. The study discovered that between 2000 and 2010, technical universities began designing their own gowns due to the high cost of renting, identification issues, and income generation, with KsTU leading the way. While some designed and constructed their gowns in-house, the majority subcontracted to gown contractors. Only two institutions have gowns for different statuses, and six have HND and management gowns. Aside from the management, all institutions continue to hire gowns for their members to supplement what they have. In turn, the institutions rent out their gowns to other institutions that are interested. This research has also explored the philosophical roots of the gowns as well as their aesthetic values based on their numerous logo interpretations. Whereas 41.7% of participants were satisfied with their gown designs, 35.4% were dissatisfied, and the rest (22.7%) were satisfied to some extent. Generally, 58.3% of participants wanted their gown designs to be improved. As a result, a design framework has been created to guide gown designs. The study suggested that academic institutions carefully review their academic gowns and aim to make them customised, appropriate, and easily identifiable in order to enhance the identity of the wearers as well as the brand identity and image of the institutions. For research and educational purposes, detailed information about the gown designs should be retained.



CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The complexity of higher educational institutions worldwide and locally, and their respective cultural uniqueness, cannot be overemphasised. Such cultures usually emanate from their history, which is full of traditions and is pursued from generation to generation so as to ensure stability and perpetuity. A couple of publications have been made on the university's culture and its essence. Exemplary, Sporn (1996) described universities as being complex social organisations having special cultures. Simplicio (2012), adding to Sporn's view, also indicated that individual universities possess a unique and revered culture drawn from the institution's history, which is soaked in traditions. He continues that, subsequently, such traditions strengthen the history and gradually acculturate the freshers, adding that culture is very important to the university's wellbeing in an attempt to ensure the needed stability and continuity. Hence, it is in place that the educational institutions keep going with the core traditional values and culture that emphasise their identity. One of the ways of doing that is through the ceremonial clothes/uniforms/academic gown designs, with the goal of communicating the visual iconographic representations of what academic institutions stand for.

As Shen and Tian (2012) wrote:

The University constantly increases cultural confidence and improves cultural consciousness. The university has a very great history and keeps its long standing by means of cultivating generations of talents to practice, inherit, and innovate culture,

thus satisfying the eternal needs of the nation, society, and people. College education is not just the transmission of knowledge and information but also its potential and lasting cultural influence, which is an inner and irreplaceable strength (Shen & Tian, 2012 p. 64).

It is, therefore, not surprising that higher academic institutions, being corporate bodies, showcase their corporate identities through their logos/crests/insignias/embellishments (Ammisah, 2016) for the purposes of promoting their culture, shared history, and identity (National University of Ireland, 2006). The design of the ceremonial and anniversary cloths (Ammisah, 2009) and academic gowns (Handbook on Academic Ceremonies, 2012; Osei-Poku, 1999) mostly depicts such identities in an attempt to promote their visual messages during anniversary and academic ceremonial occasions. This practice has been perpetuated over a long period of time and has thus become a norm for higher educational institutions annually to preserve the status quo so as to "constantly increase cultural confidence and improve cultural consciousness" (Shen & Tian, 2012 p. 64).

Presently, on the calendars of academic institutions all over the world, academic ceremonies such as matriculation, graduation, investiture, and others are marked using academic dresses. Matriculations are official welcoming ceremonies that mark the formal conferment of studentship on fresh students, sealing the admission contract between matriculands and the institution (Essel & Kemevor, 2016). On the other hand, graduations (congregation) are characterised by the award of certificates to students and other personalities, whilst investiture is basically a grand celebration in honor of the installation of a new Chancellor or Vice Chancellor (Howard, Simpson & Peligah, 2015). These special dresses, which in most cases have the hood/stole, the

headgear, and the robe as their distinctive elements, are often designed in accordance with the culture and philosophies of the institutions (Osei-Poku, 1999). Therefore, when donned, they send messages about the wearer to the observer regarding their status and achievements, and these are seen in the colours and designs employed (Sullivan, 1997).

The history of academic gown usage can be traced back to the medieval period when English and European scholars at the time used garments made of wool and fur to make them warm because their buildings were poorly heated (Office of the Registrar, OSU, 2020). In the 1300s, it became the standard academic attire for Oxford and Cambridge universities. Later in the 1600s, detailed regulations were established regarding academic garb usage, resulting in Oxford and Cambridge universities taking the initiative of directing a precise system of academic dress to be used. Most British universities, including those in Ireland, base their academic dress systems on the Oxford-Cambridge styles (Hoffmann, 2009; National University of Ireland, 2006). Generally, between the 1600s and 1700s, universities in Europe (excluding professors in some countries) stopped using academic dress owing to religious and political confusion (Cox, 2001). Records show that, while other countries kept only part of the attire, such as the insignia (e.g., doctoral sword, hats, or rings), only the United Kingdom and Iberia used the full complement of academic gowns at the time. Essentially, the colonial expansion of countries gave birth to the proliferation of academics in many other countries (Hoffmann, 2009; National University of Ireland, 2006).

In 1754, Columbia University in New York adopted the regalia, and by the 19th century, its use had caught up with more colleges in America (Hoffman, 2009).

Wolgast (2009) writes that within the second half of the nineteenth century, higher education in the United States increased greatly. This was the consequence of the creation of the so-called "land-grant" public universities in every state in America (for instance, Cornell and the Massachusetts Institute of Technology in 1865, and the University of California in 1869), including many state universities founded without federal funds as well as many private universities (such as Vassar College, for women, in Poughkeepsie, N.Y., in 1861; Johns Hopkins in 1876; Stanford in 1891; and the University of Chicago in 1892) within the period. The large number of students entering universities brought into being a heightened interest in the emblems of collegiate life. In effect, cap and gown started surfacing on campuses from the east to the west, together with some older universities that had discontinued using academic dress after adopting it some hundred years before.

The academic gowns are designed according to the level of achievement of the wearer, and so there are gowns specially made for diplomas, bachelors, and postgraduates (such as for Masters and PhD) (National University of Ireland, 2006). There are special costumes for institutions' certain officers like the chancellors, vice chancellors, pro-vice chancellors, and registrars (Christianson, 2006; National University of Ireland, 2006) and provost (Amoakoh, Koranteng & Nketiah, 2006).

Internationally, such as in Europe, America, and other parts of the globe, including some African academic institutions, there are colour codes that are used to identify faculties and areas of learning as well as the awarding institutions. The colour codes, which range from maize to gray, are used to design the trimmings of the gowns for doctors, the edging of hoods and the tassels of caps (Sullivan, 1997). Colours are key in all academic ceremonies. Besides enhancing the aesthetic taste of ceremonies,

when applied on hoods, robes, tassels, flags, banners and the like, they carry symbolic interpretation of institutions and therefore should be displayed on the various elements of academic dress and other emblems to represent each academic institution and their respective faculties/colleges (Handbook on Academic Ceremonies, 2012). The research report demonstrates that the University of London seems to have taken the novel step of creating the colour system for faculties in academic dress design somewhere in the 19th century, ultimately convincing a greater number of universities around the globe, both new and old, to follow suit (Christianson, 2006). In America, the colours of the lining and trim of the hood are used as distinguishing mechanisms to readily identify the awarding university and the wearer's field of study by those with technical eyes (Wolgast, 2009). Basically, the academic gowns of most universities are differentiated using a fusion of shapes, sizes, and colours of the garments with nothing indicating the link with the university in question (Newton, 2014), except a handful of some universities, such as the Durham and the Wales Universities, using the palatinate purple and the shot silks respectively. Literature has shown that universities in the Commonwealth countries adopt hook, line, and sinker the designs of some British universities (Cox, 2001 as cited in Newton, 2014). In the US, irrespective of the Intercollegiate Code restricting the duplication of academic gown designs, many universities have their coat of arms embossed near the top part of the front facings of the gowns (Smith & Sheard, 1970 as found in Newton, 2014).

Grooves and Christianson (2004) noted that some of the Commonwealth universities have included indigenous local designs in their academic gowns. For instance, Newton (2014) wrote that in Africa, such as at Kenyatta University, the most common distinguishing features of the various gowns could be found at the front facing,

forming the panel. This consists of a row of coloured triangles signifying the belt buckle of the first Kenyan President, Jommo Kenyatta, as found in the coat of arms (Newton, 2014). While the indigenous traditional design elements of different kente strips in different colours and adinkra symbols to underscore the authority and core values (Agbo, 2006), have been employed to promote gown distinctions in Ghana, for example, by the University of Ghana (UG) (Committee Report, 2014), the University of Cape Coast (UCC) (google.com), amongst others, coded colours and logos are employed by the Kwame Nkrumah University of Science and Technology (KNUST) (Howard et al., 2015), University of Education-Winneba (UEW) (Handbook for Academic Ceremonies, 2012) and many more for similar purposes.

Most Ghanaian institutions, be they educational or otherwise, create corporate symbols (such as the crests/logos/emblems) that identify them as corporate bodies. The symbols are the dominant motifs of Ghanaian university cloths which essentially represent the objectives, ideals, values, and philosophies of the corporate institutions. Ammisah (2016) argues that the philosophy that mostly prevails in educational institutions aims to provide quality education, instilling discipline and ensuring that education makes available to an individual knowledge, skills, and moral values so as to be responsive to the needs of society. He continues that the various visions, missions, mottoes/slogans, and aims of the academic institutions depict the corporate philosophies represented in the anniversary cloths which attempt to promote the visual identity as well as make popular these ideals (Ammisah, 2016). The corporate symbols, besides being embossed on ceremonial and anniversary cloths, are also represented on academic gowns to emphasise institutional identity and social cohesion globally and locally.

The use of academics during matriculation and congregational ceremonies has a visual semiotic power that symbolically reminds wearers of their academic duty while also providing an appealing view for observers (Essel & Kemevor, 2016). It is indeed a pleasure to observe academic ceremonial gatherings when varied gown designs are on display. Nonetheless, the kind of identity and corporate image projected through academic dress during academic ceremonial occasions in some tertiary institutions in Ghana leaves much to be desired.

1.2 Problem Statement

After searching Google, Google Scholar, and the Transactions of the Burgon Society databases, literature on academic gowns abounds in Europe and the Americas, but only a few in Africa. These were discovered solely in Africa, and they include Newton's (2014) work on the Kenyatta University gowns and Bethke (2022) historical review and description of the Ceremonial and Academic dress at the University of KwaZulu-Natal. In Ghana, the University of Education, Winneba (UEW) handbook on academic ceremonies published in 2012, Howard et al.'s (2015) study on academic ceremonies and dress, Essel and Kemevor's (2016) study on the aesthetical tastes of academic and traditional costumes in academic processions, and Howard et al.'s (2019) investigation on the need for customised academic dresses for Ghana's tertiary institutions. Amoakoh et al. (2006) and Osei-Poku (1999) were among the unpublished papers discovered in the KNUST library.

To expound on that, Newton (2014) unearthed the history of the academic gowns of Kenyatta University. According to Newton (2014), from 1970 to 1985, Kenyatta University College, now Kenyatta University, wore academic dress as a constituent

institution of the University of Nairobi. Kenyatta University chose a new system of academic attire after it gained independence in 1985. According to Newton, the first Kenyatta University graduates wore University of Nairobi robes. Newton displayed photographs of the current gowns used at Kenyatta University, ranging from the bachelor's robe to the chancellor's robe, highlighting the design processes and philosophy underpinning the designs.

Bethke (2022) recently presented a historical overview and description of the University of KwaZulu-Natal's Ceremonial and Academic Attire in which the University of KwaZulu-Natal was said to have been legally formed in 2004 when the University of Natal merged with the University of Durban-Westville. With photographic evidence, the study described the process through which the current university established its ceremonial and academic gowns.

Like the higher academic institutions globally and locally, the Ghanaian Technical Universities (TUs) mark their academic ceremonial occasions such as the investiture, congregation, and matriculation with pomp and pageantry, displaying varied designs of academic dresses and traditional costumes in the styles specific to a particular academic institution. Amissah (2016, p. 1382) noted that many institutions in Ghana, including public universities, possess a diversity of symbolic identities which more often than not portray their vision, mission, ideals, values, and philosophies as well as act as the important motifs in designing their ceremonial and anniversary cloths. However, Amissah (2009) observed that many academic institutions in Ghana use adinkra symbols in designing their corporate identities despite such symbols not being in tune with their ideals and philosophies.

The aesthetic features and values of clothes are very vital to both the wearer and the observer. Christman (2003) in Annku and Mireku-Gyimah (2010, p. 72) asserts that the worth of aesthetics is attained from shape, colour, and composition. Since academic gowns are usually designed to display certain design aesthetic features, it is necessary that they be evaluated so as to know the significance and meanings such features carry. Hence, academic gowns for the Technical Universities ought to be appraised in order to establish the degree of design aesthetics and philosophies associated with them for the purpose of appreciation, criticism, recommendation, and education.

There have been issues and concerns raised in both literature and conversation as regards academic gowns in Ghana. For instance, Howard et al. (2015) found that academic gowns are worn for the fun of it and to continue the status quo without an appreciable knowledge of their design philosophies and interpretations. Based on that, the authors recommended that enough education be given to curb that. Howard, Essuman, Asare and Simpson (2019) found that the Kumasi Technical University (KsTU) community has issues with the gown usage and its resultant creation of an identity crisis, and that there is thus a need for befitting customised academic costumes that can effectively distinguish them from the other academic institutions in the country.

Although there appears to be a well-developed literature on academic gowns (i.e., history, design, and usage) in Europe and the Americas (Christianson, 2006; Hoffman, 2009; National University of Ireland, 2006; Office of the Registrar OSU, 2020; Sullivan, 1997; Wolgast, 2009) and a plethora of related publications, the same cannot be said for Africa, and Ghana in particular. There are a couple of published

and unpublished works on Ghana's academic gowns (such as Amoakoh et al., 2006; Essel & Kemevor, 2016; Handbook on Academic Ceremonies, 2012; Howard et al., 2015, 2019; Newton, 2014; Osei-Poku, 1999).

In 2012, the handbook on academic ceremonies was prepared by the University of Education, Winneba (UEW). This covered mainly the varied procedures for organising academic ceremonies, the philosophical and aesthetical dimensions of academic processions and recessions, as well as the design significance of the various kinds of academic gowns used by the university. The book was written with the view of educating the stakeholders on the importance of academic ceremonies in UEW.

Newton's (2014, p. 18) paper on the "factors influencing the evolution of academic dress at Kenyatta University, Kenya" tried to describe the academic dress used by the University of Ghana (UG). The author gave account of the fusion of European and Ghanaian indigenous designs using photographic evidence. The gowns' fabric and style are European in nature, while the kente strip front facing is woven in bright primary colours to represent Ghanaian tradition. His study found that such a combination of the two different traditions brings about attractive gowns distinct to University of Ghana that can be worn with dignity for academic gatherings anywhere in the world. Essentially, Newton's paper spelled out the aesthetic relevance and the philosophical significance of the University of Ghana's gowns to some degree, but whether the designs are in tune with the true philosophies, mission, vision, and aspirations of the university is not known. Nevertheless, Newton's study did not include the traditions of the other academic institutions in Ghana, particularly the Technical Universities.

Moreover, Essel and Kemevor's (2016) study on the aesthetical tastes of academic and traditional costumes in academic processions in the University of Education, Winneba (UEW), educated readers on the visual interpretations of the matriculation and congregation ceremonies of UEW. Employing participant observation and with photographic proof, the study expatiated on the symbolical reasons and aesthetical connotations associated with the academic and traditional costumes for academic ceremonies based on the collaborative effect of the foreign academic and traditional dresses. Nonetheless, the study focused only a little on the design aesthetics and philosophical essence of the academic gowns to which they referred.

Additionally, Howard et al. (2015) worked on assessing wearers' and observers' understanding of the ceremonial significance of academic procession and dress in tertiary institutions with evidence from Kumasi Technical University (then Kumasi Polytechnic). Using survey data, the findings were presented with descriptive statistics and photographic evidence. They found that, the majority of respondents had a poor understanding of the significance of the academic procession and academic gowns. The authors concluded that the University community should be educated to know and appreciate the ceremonial significance of the academic procession and the academics. They recommended that relevant education could be done in official documents, the students' handbook, and rehearsals for academic ceremonies, including special publications on the institutions' academic costumes, colours, and symbolisms to bring a gradual change over a period. The study, however, did not consider the design aesthetics and philosophies of the academics used by the Technical Universities and did not also design the gowns.

In a follow-up study, Howard et al. (2019) studied the need for customised academic dresses for the tertiary institutions in Ghana, using the Kumasi Technical University (KsTU) community as a case study. The study revealed that most respondents recognised the existence of the issues pertinent to the use of the academic ensembles that amount to identity challenges and admitted that these issues need to be addressed by acquiring befitting customised academic dresses. Moreover, they added that respondents were in favour of the various gown components designed to portray the philosophies and traditions of the institution and its faculties; the use of good quality materials; the exquisite sewing of the gowns; and ensuring that they become durable. Even though the study covered the design expectations of the various academic dresses of Kumasi Technical University, it did not design the gowns, let alone dilate on the design history, aesthetics, and philosophies.

Osei-Poku (1999) designed academic robes for the Kwame Nkrumah University of Science and Technology, Kumasi, the then University of Science and Technology. Basing on the distinctive culture and traditions of Ghana, the designs used local fabrics and drew inspirations from dress design shapes such as fuugu, agbada, babariga and ntama for further development. The styles of the final product were akin to those of the garments of the northern region of Ghana, taking into consideration the social hierarchies. His designs took into account the design history, philosophies of the colours and symbols, and the aesthetics of the gowns he designed. His project was situated in the context of Kwame Nkrumah University of Science and Technology, Kumasi, the then University of Science and Technology gowns and the findings cannot be holistically applicable to today's Technical Universities in Ghana considering their different ideologies and the length of time elapsed since the robes

were produced. Again, Osei-Poku's study did not cover the senior management gowns.

Amoakoh et al. (2006) also designed official academic robes for the six provosts at Kwame Nkrumah University of Science and Technology (KNUST) Kumasi, using foreign fabrics and college-specific coded colours with their respective logos as well as the logo of the university. Evidence of the designs was presented by means of photographs and the colour codes symbolising the college gown, and the differences were explained thoroughly. Though the study showed the iconographic essence of the varied colour codes of the six colleges of KNUST, to some extent, it was silent on the design aesthetics and philosophies of both the university and colleges' corporate identity ramifications of the gowns.

Against the backdrop of the gaps found in the above literature, the present study sets out to unearth when the design of the academic gowns in the selected Technical Universities began, the designs' philosophical dimensions, and the aesthetic connotations expressed by the features of the designs, as well as seek the opinions of the wearers as to the appropriateness of their institutions' academic gown designs using their various philosophies as the basis. The results of the study establishing the extent to which the designs communicate the required identity of the wearers will provide the opportunity for comparing the various institutions studied.

1.3 Purpose of the Study

The primary goal of the research is to educate stakeholders, such as Technical University communities, designers, and other academic gown observers, on the design history, philosophies, and symbolic significance of the design aesthetic implications

of the gowns used by Ghana's selected Technical Universities. This will be accomplished by publishing the study's findings and giving talks on them. Another goal is to give a foundation for reinforcing their Corporate identity.

1.4 Specific Objectives

The study sought to:

1. trace the design history of academic gowns of the selected Technical Universities in Ghana.
2. examine the design philosophies underlying the various academic gowns for the Technical Universities.
3. investigate the aesthetic design values of various academic gowns in Ghanaian Technical Universities.
4. determine the perceptions of the wearers as regards the design identity of the academic gowns.
5. develop a framework for designing academic gowns for the Technical Universities.

1.5 Research Questions

1. What are the design histories of the academic gowns of the selected Technical Universities in Ghana?
2. What are the design philosophies underlying the academic gowns of the Technical Universities in Ghana?

3. What are the design aesthetic values of the academic gowns in the Technical Universities in Ghana and how do such values reflect the institutions' philosophies?
4. How do the wearers of the selected Technical Universities perceive the design identity of their institutional academic gowns?
5. What is the framework for designing and creating academic gowns for the Technical Universities?

1.6 Delimitations

The study focused on elucidating the design history, philosophical and aesthetic connotations of the different kinds of academic gowns used in the selected TUs in Ghana. The institutions were Accra Technical University (ATU), Cape Coast Technical University (CCTU), Ho Technical University (HTU), Kumasi Technical University (KsTU), Sunyani Technical University (STU), Tamale Technical University (TaTU), and Takoradi Technical University (TTU). These institutions were among the first to have migrated from polytechnics to technical university status in 2016, except TaTU, which became a technical university in 2018.

1.7 Significance of the Study

Most wearers of academic gowns and observers of academic ceremonies do not know the significance of the gowns. Understanding and appreciating the varied designs of the academic gowns used by the Technical Universities is important. With this study focusing on the design history, aesthetics, and philosophies of the gowns, stakeholders of academic gowns such as the Technical University communities and the general

public will be better educated on the topic, enabling them to understand and appreciate the designs better.

Documentation of the significance of the various features of the academic gown is paramount. Therefore, the outcome of the study would educate academic institutions in the country on the need for comprehensive documentation of their gown designs so as to encourage them in their documentation for the benefit of the university communities in the country.

Academic gowns are not designed in a vacuum but are required to be based on the philosophies of the academic institutions in need. Hence, this study could assist management of academic institutions and the committees in charge of issues concerning academic gowns to be better informed about the intricacies of academic gown designs so that they can take informed decisions and adopt the appropriate gown designs that are responsive to their unique culture, core values, and aspirations in order to effectively accentuate their uniqueness and identity.

Academic gown designers in Ghana frequently adopt foreign academic gown designs without regard to the corporate identity requirements of the academic institutions. With this study, designers would be well informed as to the essential elements required for designing and producing befitting academic ensembles capable of communicating the right messages about the wearer to the observers.

Literature on academic gown designs in Africa and Ghana in particular is scarce since most academic gown designs are not documented. This has made it extremely difficult to obtain gown information for academic purposes. The outcome of this study will serve as a reference material useful for students, academia, and other

interested researchers worldwide. After being educated on the design essentials of academic gowns, academic institutions may change their gown designs in order to design gowns that are appropriate to their identities.

On the whole, the study would help ensure considerable improvement in the design and production of academic gowns in Ghana's higher academic institutions as the designs would be Africanised with the inclusion of the Ghanaian traditional iconographic images. This would help accentuate the brand identities and images of the various tertiary institutions for their appropriate benefits. In doing so, the cherished Ghanaian unique identity could be projected through the gowns, enabling wearers to stand out distinctly among their peers on the world stage.

1.8 Limitations

There are ten Technical Universities in Ghana of which only seven were covered. Eight of the institutions were initially included in the research but Koforidua Technical University was removed out later due to their apathetic attitude towards the study.

1.9 Organisation of the Rest of the Study

The rest of the study encapsulates chapters 2, 3, 4, and 5. In Chapter 2, the literature was reviewed to provide a framework for the research work. This mainly consisted of the overview of the review, the conceptual framework, the theoretical framework, the design history of the European and American gowns, and the design philosophy covering the essence of portraying the mission, vision, academic institutions' organisational culture, and academic institutions' branding to the public to emphasise

their unique identities. Also included were the kente and adinkra designs as communicative tools. It also covered aesthetic definition, aesthetic judgement, and aesthetic appreciation. Clothing, identity, and social interaction were also highlighted. Furthermore, some of the contemporary academic gown designs used in Europe, America, and Africa have been captured. The methodology was covered in Chapter 3, which discussed the research philosophy, research design, population, sampling, and sampling techniques, methods of data collection and analysis, trustworthiness and authenticity of research, and ethical considerations. In Chapter 4, the results were presented, analysed, and discussed in line with their respective objectives. While chapter 5 was devoted to the summary of findings, conclusions, and recommendations, references were subsequently provided for all the citations used in the study in alphabetical order.

1.10 Definition of Terms/ Abbreviations

1.10.1 Terms

Academic Gown As used in the document refers to the following: academic dress, academic regalia, academic attire, academic ensemble, academic garb, gowns, academics, academic costume, cap and gown, academic robes, and ceremonial dress; they are therefore used interchangeably.

Cap Refers to the following: headpiece, headwear, headgear, mortarboard, bonnet, head cover, and they are also used interchangeably.

Mortarboard	Refers to the type of headwear having a hard flat top surface with a tassel hanging down from its center. It is also known as a trencher.
Tassel	Is the cord or rope tied to the top centre part of the mortar board that hangs down from the cap to either indicate institutional/faculty affiliation or degree level.
The Tudor bonnet	Is a traditional soft-crowned cap with a round, broad brim that is typically made of velvet or velveteen and is a component of management and doctoral robes. It has a tassel dangling from a cord that wraps around the cap. The tam, unlike the bonnet, has sides ranging from 4 to 6 and 8.
The hood	Is that part of the gown that hangs around the neck of the wearer and is seen at the back. Normally, the hood is the most colourful aspect of the gown, used to indicate institutional, degree, and faculty affiliations.
The panels	Refers to that part of the gown frontage close to the opening of the gowns, which is normally decorated with colours, kente designs, and or symbols for aesthetic purposes. The panel/front facings of gowns can be of velvet in the case of PhD and above, of satin or other fabrics. It may denote the degree level of institutional or faculty affiliation.

"Hood shell"	Refers to the outer part of the hood.
Liripipe	Refers to the tail of an academic hood.
The cowl	Is the part of the hood that receives the lining. It is the open-draped part of the hood.
The lining	Is the inner part of the hood, displaying the colour of the field. The lining usually depicts the colour(s) of the institution.
The binding	Is the part that runs along the edge of the shell fabric of a hood. It is also known as a binding
Piping	Refers to the edgings or the single or dual rows around the panels, chevrons, and sleeve bars on the gown which highlight them.
Chevron	Is the divisions of the satin field in the hood.

1.10.2 Abbreviations

OIC	Opportunity Industrialisation Centre
BM	Bachelor of Management
BD:	Doctor of Management
BPhil.	Bachelor of Philosophy
BLitt.	Bachelor of Letters

MMath	Master of Mathematics
MEng:	Master of Engineering
MChem.:	Master of Chemistry
MMathPhys:	Master of Mathematics and Physics
MMath Stat:	Master of Mathematics and Statistics
DSc:	Doctor of Science
EdD:	Doctor of Education
EngD:	Doctor of Engineering
MD:	Doctor of Medicine
DBA:	Doctor of Business Administration
B.Tech.:	Bachelor of Technology
M.Tech.:	Master of Technology
DClinPsych:	Doctor of Clinical Psychology
MBChB:	Bachelor of Medicine, Bachelor of Surgery
BCh.:	Bachelor of Chemistry
BCL:	Bachelor of Civil Law
DCL:	Doctor of Civil Law

IGF:	Internally Generated Funds
SRC:	Student Representative Council
UDS:	University of Development Studies
OP1:	Other Participants 1
OP2:	Other Participants 2
ATUP:	Accra Technical University Participant
CCTUP:	Cape Coast Technical University Participant
HTUP:	Ho Technical University Participant
KsTUP:	Kumasi Technical University Participant
STUP:	Sunyani Technical University Participant
TaTUP:	Tamale Technical University Participant
TTUP:	Takoradi Technical University Participant
S4:	Edinburg Simple Hood
s9:	Victoria Simple Hood
h2:	Doctors bonnet
h1:	Mortarboard
f3:	London Full Hood

d2: Oxford Doctor's Sleeve

Oxbridge Oxford-Cambridge



CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

This chapter sought to review literature on the relevant topics to establish a conceptual basis for the study. The highlights encompass the conceptual framework, theoretical framework, design histories of academic dresses in England and Europe and America covering issues about the intercollegiate code of academic costume and the subsequent standardisation and readoptions of the designs, the design philosophies, aesthetics, dress identity and social interaction and finally the contemporary academic gowns used in some European, American and African academic institutions.

2.1 Conceptual Framework of the Study

Theoretical and conceptual frameworks provide the groundwork for a research's legitimacy and direct its course. According to Camp (2001), cited by Adom et al. (2018), a conceptual framework is a structure that the researcher thinks best explains the development of the issue being investigated, and the chapter that discusses the literature review is where the conceptual framework is mostly located. Shikalepo (2020) states that it helps researchers describe and visualise what they plan to look into.

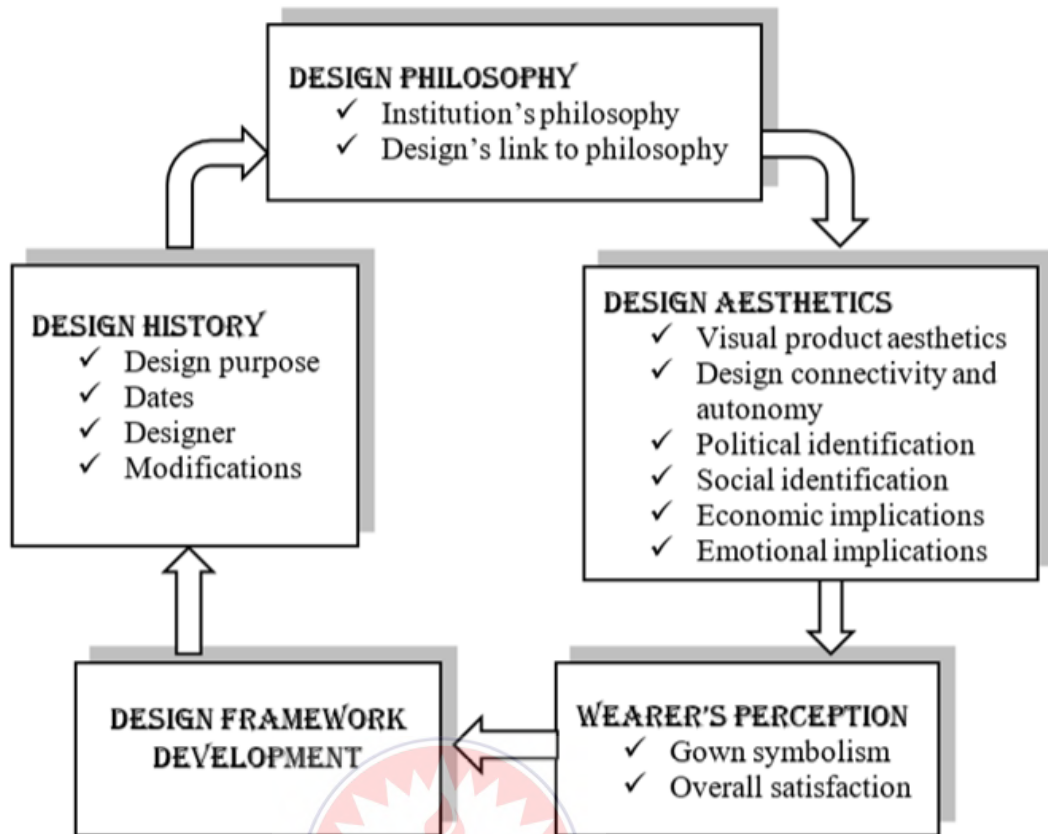


Figure 1

Conceptual Framework. Image shows the conceptual underpin of the study of the academic gowns of the Ghanaian Technical Universities'. Image created by the researcher based on the literature reviewed.

The framework (Figure 1) was built by broad thought on the study and an exhaustive review of related literature. The framework provides a schematic illustration for the investigation of the design history, philosophies, and aesthetics of the academic ceremonial gowns for the technical universities in Ghana. According to Lees-Maffei (2016), the examination of design with the goal of acquiring knowledge about its history and the investigation of the past in an attempt to understand design are both covered in the discipline of design history. Design historians take into account the theoretical, economic, business, labour, and sociological settings that can be used to understand design (Lees-Maffei, 2016). The design purpose, dates, creators, and whether there have been any modifications since the designs were formed are all

included in this study's design history of the academic gowns worn by the Ghanaian technical universities.

The design philosophy was based on the institutions' philosophies, that is, the ideals, traditions, values, and history, which are visually translated into mottoes, slogans, and logos, crests, and emblems to aid in the wearer's and the institution's identity (David, 2001, cited in Erkan, 2008; Ogwora et al., 2013). As Amissah (2016) has said, the logos and crests and all emblematic symbols, mottoes, and slogans epitomise the vision and mission statements of academic organisations in Ghana. Because of this, it was appropriate to examine the gowns worn by technical universities and determine whether or not each institution's design reflected its own philosophy.

The design aesthetics also covered the visual product aesthetics, which concerned itself with sensory dimensions such as line, proportionality, harmony, form, coherence, balance, fabric quality, colour, texture, and other design features of the gown that ought to be aesthetically appealing. De Klerk and Lubbe (2004) refer to colour, texture, line, form, rhythm, balance, proportion, and others as the sensory dimensions of the formal qualities of an apparel product and are thus very crucial in aesthetic evaluation. How unique the gowns are and their ability to exert autonomy amongst their counterparts were also essential to know from the study. In essence, Berghman and Hekkert (2017) have said that aesthetic appreciation thrives on both social connectedness and autonomy. Thus, the connectedness of the design to the academic institution and the autonomy it exerts among its counterparts can be exploited in appreciating academic gown designs. Politically, the gowns and their components (robes, headgear, and hoods) are usually designed on the basis of status characteristics, social identity, and social comparison theories (Rudd & Lenon, 2001)

for the appropriate degree of status distinction. And these are manifested in the style or cut; material type and quality; length and size of the gown and hood; lining and trimming of the hood; communicative symbols; colours; decorations and adornments; and the like. In terms of the social identification aspect of the gown designs, the intra-gown differences concerning faculty and school affiliations as well as the inter-institutional distinctions are crucial to be studied so as to verify how the technical universities communicate identity socially within and between universities. The sociocultural inclining of the gowns was also included in the study. The economic side of the gown designs was also investigated to know how the gowns contribute to the institutions' finances and the fashion and textile industries. The emotional implication of the gown designs also formed part of the study, purposefully to determine how much value wearers attached to the gowns.

The perception of the gown wearers as to how satisfied they were with their gowns also formed part of the study since their feedback on the gowns can elicit suggestions for modification or otherwise. Together, it was necessary for a design framework to be developed as a guide for designing academic gowns (Figure 1).

2.2 Theoretical Framework

The fashion and apparel businesses use clothing to develop and disclose a culture and social character, while the utilisation of clothing as an indicator generates symbolic borders between people (Akdemir, 2018). Academic gown designs have been an important fashion item/clothing used for academic ceremonies by most academic institutions of higher learning around the globe with the aim of transmitting the visual iconographic representations of what such institutions stand for to the public.

Universities such as Oxford University (North, 2014), Cambridge University (Grooves, 2014), New Zealand University (Cox, 2001), Warwick University (Jackson, 2008), University of Sydney (Academic dress standard, 2015), University of Birmingham (Goodman, 2019), Kenyatta University (Newton, 2014), and many others have documented their gown designs, showing their histories, philosophies, and aesthetics. In Ghanaian institutions of higher learning, especially the technical universities, the gown designs have not been documented, so it is difficult to understand what the designs mean. The essence of the need to document the philosophical implications of academic gowns in Ghana has been discussed in literature, and there have been some proposals made by Howard et al. (2015) for academic institutions to educate their gown users on the gown designs. Because the technical universities' gowns have not been documented to tell their stories, this study intended to unearth the histories, philosophies and aesthetics of the gowns, and the perception of the users with the primary aim of documenting the findings and educating the public about the values of the gowns. These were the theories that informed the study and were moved hand in hand.

According to the object-based theory, materiality is the process of identifying and categorising clothing or other items for historical purposes through description and recording. The emphasis is also placed on the exhibits' contextual components, including oral histories, business histories, and fashion manufacturing design ideas (Taylor, 2002). A key component in the creation of historical tales is the physical object. It is a technique and a material that require researchers and students to have actual knowledge, an understanding of fashion theories, and hands-on experience in addition to academic skills (Riello, 2011, p. 1 & 7). Riello described material culture

as the ways and means by which things come to have significance in people's lives (fashion being one of these). Gupta (n.d.) has proposed a methodological approach that focuses on using objects (actual textiles and dresses, articles of clothing, and accessories), visual evidence (paintings, pictures, photographs, and prints), literary evidence (written records), consumption history (interviews), and etymology (detailed study of garment names). Against this backdrop, this study was set up within the framework of Gupta's five-fold methodological model approach (Gupta n.d.), material culture, and object-based theory (Riello, 2011; Taylor, 2002). Objectives 1–3 were placed within the context of the theories addressed.

The theoretical framework, according to Grant, provides the framework and support for the study's justification, problem statement, purpose, importance, and research questions. It gives the literature study and, most crucially, the methodology and analysis a solid foundation or anchor (Grant, 2014). In addition to gowns' ritualistic significance, this study took into account the contextual qualities of the academic gowns worn by Ghana's technical universities, as well as their oral history, philosophy, aesthetics, description, and recordkeeping.

2.3 Design History of the Academic Gowns

2.3.1 The design history of academic dresses in England and Europe

The style and design of academics used today are a reflection of the secular and clerical attire worn in England and Europe during the middle ages (Cox, 2001) as has been somewhat discussed in the background. The robe dates back to the Middle Ages, when the first universities were founded in Bologna, Paris and England's Oxford and Cambridge in the twelfth century. The Roman Catholic Church at the time controlled

education, so the monks and clergy had their heads tonsured (shaved). The clerics and monks needed to wear clothing made of wool and fur to keep them warm because the badly heated buildings had a chilling impact on them.

Both the cap and the gown are symbols. According to tradition, a liberated Roman slave's first right was the ability to wear a cap. Thus, the academic cap has come to stand for the independence of knowledge. The flowing gown has also come to stand in for academic democracy since it involves clothing that might be used to indicate rank or social class (washington.edu/ceremony). The cappa clausa (gown) and hood were the components of the outfit (Office of the Registrar, OSU, 2020). Academic habits formerly had to be pulled over the head and were closed in front, as suggested by the Latin name "cappa clausa." The shoulder linings on the hood were first created in England with the intention of keeping the user warm. The large hats that were worn at Oxford and Cambridge throughout the seventeenth century gave rise to the mortarboard caps. The hat was broad and loose, which unfortunately caused the edges to hang over the wearer's face. After that, a board was placed inside to provide stability. Then it moved on to the caps now in use. By the year 1770, the tassel was included as well (University of Manitoba, 2017).

2.3.2 Design History of Academic Gowns in the United States of America

2.3.2.1 Pre intercollegiate era

The background to this study has already traced the beginning of academic garb usage in the United States by indicating how the proliferation of American higher institutions grew the interest in the use of academic gowns for university and college ceremonies (Hoffmann, 2009; National University of Ireland, 2006; Wolgast, 2009).

Wolgast (2009)'s study has shown that Gardner Cotrell Leonard, who was said to be the originator of the modern American academic ensemble, had said that the practice of the use of the academics had "passed the stage of student fad...; it had overcome the quiet national Anglophobia, and by the mid-1890s scores of institutions for higher education had... adopted gowns for ceremonial or ordinary wear" (Wolgast, 2009, p. 12). During that time, higher educational institutions in America were free to design their own styles of academic dress or adopt whatever seemed pleasing to their governing councils without regard for what other sister institutions were doing, resulting in chaos. The study also alluded to David A. Lockmiller, classifying a number of the hoods then in use as " 'bizarre', and the 'array of caps, gowns, and hoods... confusing'" (p. 12). Wolgast's study referred to Frederick Rudolph as regards the uncertainty that ensued in the minds of observers as to the significance of the design of the academic gowns at the time, which necessitated the standardisation of the gowns. Subsequently, the necessity led to the formation of a conference referred to as the Intercollegiate Commission on Academic Costume (ICAC). The conference culminated in laying down rules for the appropriate design of caps, gowns, and hoods at American institutions of higher learning.

2.3.2.2 The 1895 intercollegiate commission on academic costume era

Wolgast (2009)'s records show the uniqueness and the underlying philosophies of the American academic costumes. The account captures Leonard offering suggestions for an academic dress code to the ICAC in 1895. One analyst wrote after six decades that "the standard cap and gown are almost commonly worn" since a significant number of universities immediately embraced the code and then maintained it nearly forever (Sheard, 1962 as cited in Wolgast, 2009, p 13). According to Rudolph, p. 408 as

published by Wolgast, American academic wear, in contrast to European academic gowns, appeared to have been influenced by both the military and the Oxford-Cambridge traditions courtesy by Colonel McCook, who was a corporation lawyer and Civil War officer. This was due to the unique methods used in academic attire to distinguish between the many universities and levels of scholarship (Wolgast, 2009).

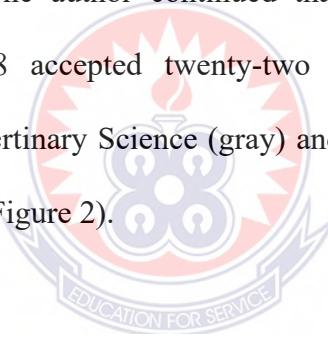
From the account of Wolgast (2009), the Code prescribed numerous levels for information communication. For example, while the black mortar-board became the standard headgear for all levels of degrees, each degree (bachelor, master, and doctor) had its own gown. Even more importantly, the hood was stipulated to be the element for critical differentiation for both the awarding university and the wearer's field of study. Though both Oxford and Cambridge might have experienced some centuries of upper hand in the development of academic dress, according to Leonard, "the advance shown in an intelligible system of hoods for America is evident to anyone who gives to this subject even a casual interest" (Leonard, 1896, p. 13). It is "incomparably beyond the arbitrary codes of the British universities..." (Wolgast, 2009, p. 17). This means Leonard was happier with the results of the designs and thought the codes were more responsive to their needs than those of the British universities.

Armagost (2009), citing Leonard (the Cap and Gown, p. 5), indicates that the majority of the American academic gowns used at the time were Oxford Bachelor of Arts designs. However, the approved code highlighted two main differences, namely, the traditional style worn open and a simpler style worn closed. Leonard nonetheless preferred the closed gown on the basis of its distinct usefulness as well as its being a unique American feature (p. 9). Per the 1895 code, the gown pattern for the Bachelor's degree generally possessed pointed sleeves, with long closed sleeves for

the Master's degree, and with round open sleeves for the Doctor's degree (University of Pennsylvania Bulletin May 1899, p. 303 as cited in Suit, 2015). While the Bachelor's degree employed worsted stuffed material, the Master's and Doctor's degrees used silk (Leonard, 1911, p. 14–18 as cited in Suit, 2015), which were all in black (Columbia College Revised Statutes, 1894, p. 36) according to Suit's report. The gowns for the bachelor's and master's degrees were untrimmed. The doctor's degree gowns were to be faced with black velvet, with bars of the same across the sleeves. On the other hand, the facings and crossbars could be of velvet of the same colour as the binding or edging of the hood. This was to be distinct in accordance with the faculty to which the degree was to be applied (Suit, 2015).

Per the original 1895 Code, hoods had the simple Oxford shape (see New York University's 1892 faculty colour scheme as found in Amagost, 2009) and had a black colour (Columbia College Revised Statutes, 1894, p. 36 as cited by Suit, 2015), with their length and forms indicative of the level of degree awarded (Armogost, 2009; Suit, 2015). The hoods were to have a lining in line with the official colour of the university or college (Armogost, 2009; Suit, 2015) and were planned to be characteristic of each school. By 1918, hoods mainly had one colour lining and the secondary colour was to be on a chevron, even though a few were single colour (Armogost, 2009). The trimmings, also known as the bindings or edgings, were not to be more than six inches in width (Armogost, 2009; Suit, 2015), meaning that varied widths were not officially authorised for the various degrees, but, as Leonard pointed out, varying widths were used in practice to indicate the various degrees (Armogost, 2009). The trimmings were to be of either silk, satin or velvet in the faculty colour. To make the binding stand out from the gown, it was allowed to be part of the panel, with

the colour based on the colour(s) of the lining rather than the hood trim (Armagost, 2009). In respect of the hood lengths, Leonard in 1896 prescribed two examples of lengths of hood for doctors. These were the 'historic shape', which seems like the Cambridge full hood [f1] and the hood for the masters having the added panel (Armagost, 2009). The caps were to be mortarboard caps (Suit, 2015) and Oxford-style (Armagost, 2009) in the colour black whereas the Doctor's cap might have been of velvet type. Caps were to be decorated using long tassels presumed to be black and fixed to the centre point at the top of the cap (Armagost, 2009). Caps meant for the holders of doctor's degree were to have tassels of gold thread in one piece (Suit, 2015). The President and Deans of Faculty might adopt badges, consistent with the costume stated before. The author continued that, put together, the commission between 1895 and 1918 accepted twenty-two degree colours extending from Agriculture (Maize) to Veterinary Science (gray) and these continued to be employed until 1936 at the earliest (Figure 2).



Agriculture	Maize
Arts and Letters	White
Commerce and Accountancy	Drab
Dentistry	Lilac
Economics	Copper
Engineering	Orange
Fine Arts	Brown
Forestry	Russet
Humanities	Crimson
Laws	Purple
Library Science	Lemon
Medicine	Green
Music	Pink
Oratory	Silver Gray
Pedagogy	Light Blue
Pharmacy	Olive
Philosophy	Blue
Physical Education	Sage Green
Public Health	Salmon
Science	Gold Yellow
Theology and Divinity	Scarlet
Veterinary Science	Gray

Figure 2

Approved Degree Colours. Image Showing the Approved Degree Colours Prescribed by the Intercollegiate Commission Between 1895 and 1918. Image Obtained from Suit, K. L. Jr. (2015). The iridescent web: American degree colours (1895–1935). Transactions of the Burgon Society, 15, 41-74. <https://doi.org/10.4148/2475-7799.1133>

The colour values were in accordance with the velvet fabric samples spanning the late 1930s or early 1940s provided by the Cotrell and Leonard firm, who liked using darker shades of the colours than the anticipated colour. This was possibly done to avoid an unnecessary contrast between the black gown and the degree coloured trim. This change has made distinguishing some degree colours from others difficult, a problem that the American system of faculty colours has struggled to solve (Suit, 2015).

Following the enactment of the 1895 code, certain unacceptable deviations reared their heads. For instance, Wolgast (2009, p. 34), writing in reference to Paul Fussel in Leonard (1911), stated that "the hoods' linings are bad," bemoaning the departures from the Intercollegiate Code and expressing displeasure at the coloured rather than the black doctoral gowns. According to Wolgast (2009), Fussel was furious about the

issues that had to do with the bragging ‘emblems, logos, and signifiers’, and referred to them as being some of the "needless deviations from an eminently successful, well-known model." Wolgast has affirmed that some of the American institutions had digressed from the Code and those who happened to be adherents to the standards in the code had failed to do so as expected of them. For example, universities of Pennsylvania, Hampton-Sydney, Princeton, Columbia, Harvard, Brown, Yale, Rochester, and Syracuse all used coloured academic dress as opposed to the black gowns. A fast growing trend in the United States that has to do with the application of insignias to the gown facings by many universities has been the influence of Harvard’s crows’ feet (Wolgast, 2009).

Leonard's recommended design has influenced the current design of American bachelor gowns. Unlike the bachelor's gown, which was made of worsted material, the master's and doctor's gowns were made of silk. The Master's degree gown sleeve was designed closed and ended with a square front and an arc cut out of the back (Albany Bureau, p. 8 as cited in Armagost, 2009).

The Code has gone through three remarkable modifications. By the 1930s, the American Council on Education (ACE) had taken over the code and had called it the Academic Costume Code. In 1932, a committee was set up for the review of the ICAC. The committee report recommended certain changes, and these were accepted by the ACE.

2.3.2.3 Academic gown re-adoption and standardisation

In their quest to ensure a new and distinctive uniformity, American academic gown designs have had a series of adoptions over the past decades. These adoptions

encompass the 1932 re-adoption, the 1959 re-adoption, and the 1986 re-adoptions. Therefore, the following review deals with the above-stated re-adoptions:

2.3.2.3.1 The 1932 re-adoption

From Armagost (2009) account, after the ACE took over the jurisdiction of the Code in 1932, bachelor and master's gowns were recommended to be of black serge or worsted material, whereas black silk was for the doctor's gown. It was voluntary to use lining for all three gowns (American Universities and Colleges, p. 1066, as seen in Armagost's study). Hood trim were reduced to 50mm wide for bachelor, 75mm for masters and 125mm for the doctoral degrees while the hood length is bachelor (900mm), masters (1050mm) and doctoral (1200mm). The 1932 adoption recommended the use of chevrons to separate more than one colour design.

However, the traditional shaped sleeves were borrowed from the 1895 adoption. This, coupled with all other statutes and styles before the adoption, were to remain unchanged except explicitly replaced in a later adoption. For example, the doctor's mortar board could be made of velvet. Hood shapes were kept as usually followed by the colleges and universities of this country (American Universities and Colleges, p. 1066). According to the records, the 1932 adoption remarkably preserved the standard that the trim should be of the colour visibly associated with the faculty or subject appropriate to the degree (the degree name). As an example, a Master of Arts (MA) recipient in education would wear white, indicative of Arts & Letters, whilst a Master of Education (M. Ed) recipient would wear light blue to represent education.

The facings and bars of the doctor's gowns also remained unaltered as black or the colour of the hood trim. Nonetheless, what was visibly absent in the code was whether

gowns were to be worn close or open (American Universities and Colleges, p. 1066). The modification of faculty colour as against discipline colour was particularly noteworthy because, by the year 1932, there was an increasing trend among the schools to display the discipline studied through the use of the tassel colour. The extensive adoption of the code led to a total of twenty-two additional faculties represented, with certain colours being variants of the existing eight. However, other faculties were given entirely new sets of colours. Following the publication of the code in 1957, in the seventh edition of the American Universities and Colleges, linings required a chevron in times of using more than two colours. More than one colour is shown by division of the field colour in a variety of ways, such as chevron or chevrons, equal division, etc." (Armagost, 2009).

2.3.2.3.2 The 1959 re-adoption

Per Armagost's (2009) account, this brought in alterations to the master's gown sleeve by moving the opening to the wrist from the elbow, a design different from what was in the Albany Bureau of Academic Costume pamphlet of 1902. The arc has been situated opposite to the sleeve. In the original design, a slit just above the elbow enabled the arm to move freely. More importantly, it was then arranged as to how to wear the bachelor's gown closed and that the master's and doctor's gowns could be open or closed. Besides changing the sleeves on the masters' gowns or adding colours to the range of disciplines, the trim of the hood as well as the facings and bars of the doctoral gown (if not black) denotes the discipline studied and not the faculty conferring the degree. Doctoral gowns had open sleeves, commonly referred to as bell-shaped (i.e., sleeves wider at the cuff than the shoulder), with front facings similar to British doctoral gowns, with the American adding three bars on each sleeve,

commonly referred to as chevrons (despite the fact that it is not specified in the Code). Both the facings and bars were to be of velvet material (Armagost, 2009). The standard for hood lining was reversed to that of 1895, where the use of chevrons was optional, yet the 1932 directive has been the standard in practice up till now. Armagost pointed out that not every university favoured this change. In effect, this re-adoption yielded few variations in the code. The first is that the bachelor's gown is mandated by the code to be worn closed, while the master's gown and doctor's gown may be either open or closed.

2.3.2.3.3 The 1986 re-adoption

According to Armagost (2009), this move basically focused on the emphasis of the Doctor of Philosophy (Ph.D.) degree, employing the dark blue colour to represent the mastery of the discipline of learning and scholarship in any field that is indicating the award of this degree and is not aiming at representing the field of philosophy. At present, the design of academic dress at American and a few Canadian universities either stems from or departs from the 1895 ICAC, now known as the Academic Costume Code (Wolgast 2009). The additional variants commonly seen today employ school colours in doctoral dress. Exemplary, among the Ivy League members, Brown University started in 1912 by issuing sealed brown mortar-boards for the school's officials. Further, in the Ivy League, at the time that all gowns for masters and doctors graduating were blue, Yale was the first in 1938 to implement colour for its graduating students (Wolgast, 2009). A development which is on the increase in the making of academic gowns has been the application of piping with the view of adding a coloured border to the facings and bars on gowns. To cite a fact, the University of Northern Colorado uses antique gold piping that defines the navy blue velvet on its

doctoral gowns. Currently, the determinants of the essential factors that satisfy the United States standards for doctoral gowns are the 1) degree: whether the dress's cut, hood, panels, facings, and bars clearly show the wearer has a doctoral degree; 2) University: whether the school colours used in the design are distinguishable enough to be easily identified among the array of academic costumes; and 3) Faculty/Discipline: whether there is a clear distinction between a professional doctorate and a research-based doctorate (Armagost, 2009, p. 153).

Armagost (2009), after dealing with the standardisation of academic dress in the United States and having been satisfied with the outcome, concluded that,

...A careful evolution has created a distinctive system that is both standardised and open to variation. Our code has not substantially changed in the last half-century, but as our college system expands with associates, specialists, first-professionals, and who knows what else in the future, it will be exciting to see how our academic dress will continue to evolve (Armagost, 2009 p.154).

The review so far has revealed a brief design history of the European and American academic costumes, highlighting alterations made to the American costumes starting in 1895 and continuing to the present day. Americans now take pride in having a unique system that is both uniform and flexible. Unfortunately, save for a few, the African academic institutions that adopted and/or modified the European and American patterns have not done much to chronicle the design history of their gowns. The same is true of Ghana's academic establishments, especially the technical universities. Academic gown usage has been documented to have started in Ghana in the 1950s, and the technical universities began utilising them in the 1990s. The goal

of this investigation is to determine, among other things, the technical universities' design histories of their academic robes.

2.4 Design Philosophies

In reviewing the design philosophies this section tackles the essence of the philosophy of organisation as the basis for the formulation of vision and mission statements and the subsequent creation of values, beliefs, and ideals. For organisational identification, these vision and mission statements are visually transformed into logos and other visual mediums. Hence, the discussion of logos is preceded by heraldry and crests, which are all for identification purposes. Besides the logo and its allied media, African symbolic imageries such as the kente designs and adinkra symbols also feature prominently in this review, in that their suitable utilisation offers a considerable cultural aesthetic power and symbolic communicative elements requisite for a unique African or Ghanaian identity.

2.4.1 The Essence of Institutional/Organisational Philosophy

Every organisation or educational institution needs an appropriate philosophy in order to steer the organisation or institution towards its cherished future. Ogwora, Kuria, Nyamwaka and Nyakan (2013) have said that the ideals, values, and principles all stem from a given philosophy, and these ideals, values, and principles enable the result of education. Philosophy assists in formulating policies, beliefs and arguments, objectives, goals, vision and mission and directs society to their aspirations through education.

2.4.2 Mission

A "mission statement" refers to a set of goals aimed at helping the organisation arrive at its aims and that reveals its planned objectives (Tutar, 2004). According to Dinçer (2004), "mission" is a long-term goal, a shared value and belief, is unique to the organisation and special, and is about quality, not quantity. A mission of an institution provides an emblematic purpose and cements members together under a common, unified belief. The mission statement well understood enables organisational members to recognise the activities relating to the institution's goals (Morphew & Hartley, 2006). Tierney (2008) indicated that mission forms an integral part of the culture of an institution; it is among the examples that facilitate the fulfilment of the external culture for the entire membership of the organisation. Formal mission statements echo the core values and purpose of universities and provide guidelines for a greater number of institutions (Nowlin, 2009). Research conducted by Ammisah (2016) has revealed that an institution's mission forms one of the factors for creating corporate identities (such as the crests/logos/emblems) used in producing the anniversary clothes by Ghanaian universities.

2.4.3 Vision

The ideals, values, and beliefs constitute the important foundations for a powerful vision (Ogwora et al., 2013). A good vision statement should give special attention to the distinctive features of the organisation that separate it from others, considering all future pursuits meant for the internal and external environment of the organisation. The vision must point out to the public the culture of the organisation (Eren, 2005). Like the mission statements, Ammissah (2016) also included the vision as an important

factor that Ghanaian universities consider in their visual identity construction, such as for their crests, logos, and emblems for the production of their anniversary clothes. Much as it is crucial to incorporate the mission into the design of academic ceremonial dresses for academic institutions, it is equally important to also consider the vision factor.

2.4.4 Academic institutions and organisational culture

It is said that a requisite circumstance for managing academic organisations is to assume that they are academic communities and that the faculties are dedicated to an acceptable set of beliefs (Dill, 1982). Dill has defined organisational culture as the shared beliefs, ideologies, or dogmas of a group, driving individuals to action and interpreting such actions. Dill continues that, owing to the special character that academic institutions possess, their operations demand organisational culture. This culture will undoubtedly be steered by the philosophy of the organisation. Dill, quoting the philosopher William James, indicates that any difference that is a difference should make a difference (Dill, 1982). This difference may probably lie in their distinctive philosophies, mission, vision, and shared traditions. This difference should therefore be accentuated in the showcasing of their iconographic representations for the purpose of institutional branding.

2.4.5 Academic institutions and branding

A study conducted by van den Bosch, de Jong, and Elving (2005) found that an organisation's corporate visual identity, the symbols and graphical elements that represent an organisation, can be used to support the visibility, distinctiveness,

authenticity, transparency, and consistency of the organisation's reputation (Watkins & Gonzenbach, 2013). One of the means of satisfying the above is through visual identification, whereby academic institutions can use anniversary clothes or academic ceremonial dresses which are designed to reflect the vision, mission, philosophies, and traditions of the academic institutions. This study believes that once the philosophies (that is, the visions and missions) and traditions differ from one institution to the other, the job of ensuring the visibility, distinctiveness, authenticity, transparency, and consistency of the academic institution's reputation may be done.

Dill (1982), citing Geertz (1973), argues that taking care of the emblematic life of academic organisations needs to deal with the symbolic nature of real social events and occasions as well as the constructions that faculty members put on publicly expressed academic life. Dill adds that these rituals are absolutely necessary in that the myths, symbols, and rituals making up the culture could protect the unique identity of the academic craft by spelling out the behaviours essential for sustaining the craft and providing interpretations for these behaviours. In line with the author's position, some of these concrete social events and occasions in the life of academic institutions are the academic ceremonies such as the matriculation, congregation, investiture, and so on, organised as and when necessary to perform certain rituals for the faculty/university community members or for other important personalities in or outside the university. These ceremonies, often characterised by pomp and pageantry, have been perpetuated by the donning of academic gowns according to status in publicly expressed academic life.

2.4.6 Heraldry, crests, and logos

Crests and logos are developed on the basis of heraldic formation. Consequently, it is essential for these identification images to be reviewed and accepted as part of the beginnings of institutional identity (Amissah 2009).

2.4.6.1 Heraldry

Generally, heraldry covers all matters concerning the duties and responsibilities of officers of arms. It is the practice of designing, displaying, describing, and recording coats of arms and heraldic badges. Originally, heraldry functioned as a means of distinguishing participants in war in that their faces were covered by iron and steel helmets and it was difficult to make them out (Brooke-Little, 1973). Cheesman (2014) has revealed that currently, the blazoning arms system popular with the English-speaking countries stemmed from the officers of arms in medieval times. Cheesman indicates that the shield, the crest, and, if present, supporters, mottoes, and other insignia together form the coat of arms. And that heraldry could be found on cathedrals and old churches, local and national government offices (town halls, libraries, registry offices), local history museums, stately homes and castles, Shire Hall, Lancaster Castle, Royal Armouries, Leeds, and the like (Cheesman, 2014). Figure 3 presents an example of heraldry.



Figure 3

Medieval Herarldry. Image Showing the Medieval Herarldry Featuring the Helmet, Crest Crown, Supporter, Shield and Motto Upon Which Crests and Logo Developed.
Retrieved from [heraldry - Bing](#)

2.4.6.2 Crest

"Crest" has been variously defined. For instance, from the Collins dictionary, a crest is an emblem or design used to represent a family, group, or organisation. Technically, the heraldic term crest is about only one element of a full achievement and could be located on top of the helmet, which in turn rests on the shield (Cheesman, 2014). Currently, organisations and academic institutions in Ghana and elsewhere have their own crests that effectively identify them. Below are the crests for some academic institutions such as UEW, UG, and KNUST in that order (Figure 4).



UEW



UG



KNUST

UNIVERSITY OF GHANA

Figure 4

Crests of Some Traditional Universities in Ghana. Images Displaying the Crests of Some Traditional Universities in Ghana such as UEW (Left), UG (Middle) and KNUST(Right). Retrieved from <https://www.universityofghana.org/ghana-crests> - Search (bing.com) - Google Search

2.4.6.3 Logo

Logos have been described in several ways. For example, the Design Action Collective (2011) has explained a logo as a signature image and text combination identifying an organisation, campaign, or project. They more often than not consist of three elements: the symbol, the wordmark, and the tagline. A few may be composed of just the wordmark, whilst some may be made up of the symbol and wordmark, with some integrating the symbol and wordmark (Design Action Collective, 2011). For Adîr, Adîr and Pascu (2014), it is a graphic element for the identification of a company, service, or product. A logo is like a "signature," meaning, a graphic and visual presentation of an acceptable original concept. Components representing images, words, shapes or colours, enable the likelihood of a logo to be fused in unison, facilitating the communication of attitudes and values of the company. From

the Logo Design basics (2017), a logo is an identifying symbol representing the identity of an organisation, product, brand, or idea.

According to Adir et al. (2012), logo can be applicable to social, economic and political life. Specifically, in the areas of legality and law, education and culture, transport activities, construction and development programs, medical activities and pharmaceuticals, cosmetics and spa treatments, food industry, media & advertising, sports and sports equipment, financial-banking activities, and varied services. These activities are characterised by their appropriate symbolic identifications. For instance, justice: law books, the justice scale, the Constitution, a person pleading, etc.; travel: landscapes, boats, trucks, beaches, sea, mountains, cottages, etc.; auto: cars, wheels, tyres, body car parts, dash board, etc.; pet shop/vet medical care: domestic and savage animals, a harmonious mixture which is driven "to catch" and to be part of people's minds (Adir et al., 2012). See Figure 5 for some examples of logos.

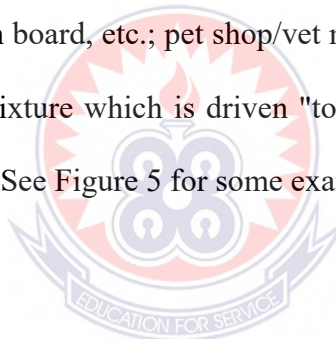




Figure 5

Logos of Some Institutions and Companies. Images Showing the Logos of Accra Academy School, Bank of Ghana, Electricity Company of Ghana and Apple Company. Retrieved from [school logos \(Ghana\) - Bing images and logo - Bing images - Google Search - Google Search](#)

Informed by the above, it is therefore in place that academic institutions exhibit their unique brand by fixing their logos on their anniversary clothes as well as their academic ceremonial costumes. This, to a very large extent, will translate their abstract philosophies into semiotic reality as such the logos would effectively mirror the vision and mission statements of academic institutions without any distortion.

2.4.7 Symbolic Akan indigenous images for communication purposes

Research has shown that Africans, and for that matter, Ghanaians, have a special way of conveying messages to their people through certain symbolic designs. The examples are kente and adinkra.

2.4.7.1 Kente's symbolic essence as an aesthetic object and a communication

medium

Kente is a borrowed word from the Twi word *kɛntɛn*, meaning basket (Kwekudee, 2012, cited in Badoe and Opoku-Asare, 2014). Asamoah-Yaw (1992), as cited in Badoe and Opoku-Asare (2014), describes kente as the "creative, thoughtful, or designer's woven cloth". Lloyd (2017) has indicated that kente is associated with the Ewe and Ashanti people of Ghana in West Africa and originated during the 17th century. Among the Akans, it is known as *nwentoma* and is a kind of interwoven strip of fabric created by the strip weave method (Thirumurugan & Nevetha, 2019).

Kente has motifs and cloth designs with names having philosophical interpretations and colour symbolism, serving as a means of conveying messages to the indigenes (Badoe & Opoku-Asare, 2014). The distinguishing features of the Asante Kente cloth are attributable to the geometric shapes of different sizes in brilliant colours of maroon, gold, green, dark blue and black (Edusei, 2006; Ofori-Ansa, 2009 as cited in Badoe & Opoku-Ansah, 2014; Thirumurugan & Nevetha, 2019). For Thirumurugan and Nevetha (2019), kente provides the pictorial presentation of Akan culture, history, and social values. In the years gone by, it was only the royalty and important personalities of society who wore the cloth during memorable occasions, but currently, it is used by people of all social standing (Lloyd, 2017).

Table 4*The Meanings and Significance of Various Colours.*

No	Color	Meaning/significance
1	Yellow	It aligns with the egg yolk and represents holiness, royalty, wealth, and beauty.
2	Green	associated with plants and signifies growth, fertility, renewal, and good health.
3	Red	It relates to blood and denotes political, spiritual beliefs, sacrifice, and bloodshed.
4	Blue	It is analogous to the sky and represents harmony, peace, and good fortune.
5	Pink	links with feminine essence and life, representing tenderness, happiness and sweetness.
6	White	connected with egg white and clay, representing healing and purity.
7	Gold	Linked to a precious metal, it signifies wealth, royalty, and prestige.
8	Maroon	It is the color of mother earth, denoting protection and healing.
9	Silver	It is related to the moon and suggests joy, purity, and serenity.
10	Grey	It connects with ashes, signifying spiritual healing.
11	Black	analogous to aging, implying strength, energy, and maturation.

Thirumurugan and Nevetha (2019) have indicated that the fabric designs are significant and visually splendid. The designs and colours exhibit a wide range of varied interpretations. Thus, the various colours used for the cloth designs and the diverse patterns send certain messages, such as a proverb or the idea of the weaver, to observers. Table 1 shows some of the colours and their respective significance as enumerated by Thirumurugan and Nevetha (2019). Lloyd (2017) has argued that selecting gorgeous colours is significant for each design in that each colour has its own symbolism. According to the author, every colour has a place in Kente's clothes. Blue represents peace, love, and harmony; green represents growth, harvest, and vegetation; yellow represents prosperity, royalty, and wealth; and red represents death, mourning, and funerals. Traditionally, black represents Africa, red represents the blood of the forefathers, yellow represents gold, and green represents the richness of the land. Lloyd argues that every cloth design possesses a sound symbolic connotation, providing a social and political explanation. It further brings forth the

visual symbolism of moral, social, ethical, and philosophical values, history, social codes of conduct, and religious beliefs (Lloyd, 2017).

Thirumurugan and Nevetha (2019) have stated that kente fabric designs express democracy, unity, responsibility, royalty, ingenuity, excellence, elegance, wealth, perfection, and superior craftsmanship and the like. The exclusive motifs and colours forming the cloth basically represent the life of the people. Lloyd (2017) enumerated some of the implications of kente cloths as symbolising forgiveness, tolerance, patience, harmony in variety, responsibility, hard work, progress, dependency on God, and power of the people. Kente designs have been made into varied products, some of which range from stoles and stashes (e.g. graduation and fraternity/sorority kente stoles, church choir and clergy kente stoles) to hats, scarves, ties, shoes, bags, sandals, shirts, and other fashionable pieces for commercial sales (Lloyd, 2017).

The kente patterns have aesthetic and communicative power and therefore incorporating them in the design of the academic ensembles in order to add to the visual representation of their philosophies will be in the right direction. Though some institutions have displayed them on their gowns and other items of branding little is known about the designs' philosophical implications the reason for which this study should be conducted on the Technical University gowns. The outcome of this study will help the literature on kente and academic gown designs.

2.4.7.2 The symbolic essence of adinkra symbols as an aesthetic object and a medium of communication

2.4.7.2.1 Essence of the adinkra symbols

Kuwornu-Adjaottor et al. (2016) have stated that the most well-known among the traditional symbols in Ghana are the Adinkra symbols. Adinkra in the Akan language denotes "farewell" or "goodbye," indicating the fear of death via philosophical and poetical abstract symbols and messages. It is an ideographic form of writing, representing ideas and teaching useful lessons. Added to that, Adinkra symbols are visual metaphors in that they are capable of facilitating understanding through the provision of knowledge (Kissi, Fening & Asante, 2019) and have names and interpretations essential for sending messages in the Akan language (Aboagyewaa-Ntiri, Campion, and Kemevor, 2018). These adinkra symbols are shown with various symbolic motives carved out of pieces of calabash and embossed on different colours of mourning cloths used at the various stages of the funeral ceremonies of the dead (Agbo, 2011).

2.4.7.2.2 Some adinkra symbols' applications

Adinkra has become famous due to its socio-cultural value and wide usage in the Ghanaian community, particularly the Akan ethnic group. It could be seen across the length and breadth of the country on several products, such as building blocks, plastic chairs, carvings, furniture, pottery, souvenirs, as well as clothes. A scrutiny of certain Ghanaian postal stamps revealed that two of them bore the Adinkra symbols and the currency (cedi) notes too (Aboagyewaa-Ntiri et al., 2018).

Although Ghanaians in general find it hard to interpret the adinkra symbols, a good number of people wear these symbols, which are also used as institutional logos and on institutional and public buildings. For example, the symbols can be found on the Golden Tulip Hotel buildings in Kumasi and Accra, as well as University of Ghana buildings (Quarcoo, 1994). The ceremonial state seat of the President and Vice-President, the robe of the Speaker of Parliament (Kissi et al., 2019), and the state sword (Essel & Opoku-Mensah, 2014; Kissi et al., 2019) are all examples of artefacts with Adinkra symbols (Kissi et al., 2019). Adinkra are visual symbols that represent concepts and can be found on fabrics, walls, logos, and other surfaces (Kissi et al., 2019). Kissi et al. further indicated that the adinkra symbols are also useful as educational symbols (such as Ntesie and sankofa); spiritual/religious symbols (that is gye nyame, nyame biribi wo soro-God); political symbols (like adinkrahene, ohene aniwa, akofena); funeral symbols (e.g. owuo atwedie) and social symbols (for instance, nkonsonkoston and fihankra). The symbol promotes the clear conveyance of information concerning the environment and feelings of people and protects some vital secrets.

2.4.7.2.3 Section summary

Heraldry has developed into a crest or logo symbolising the identity of an organisation, product, brand, or idea and is applicable to social, economic, and political life. Coats of arms, which are used to identify a family, town, school, or organisation, were first created through the practice of heraldry. In line with the above, academic institutions should display their distinctive brand by stamping their logos on their anniversary outfits and academic ceremonial costumes. This will translate their abstract philosophical ideas into semiotic reality.

The names and meanings of the kente patterns and adinkra symbols are essential for conveying information in the Akan language and help organisations and educational institutions better communicate their vision and mission. The visual symbolism of moral, social, ethical, and philosophical ideals, history, a social code of behavior, and religious beliefs are used in Kente motifs and designs to portray African (Ghanaian) culture, history, and social values.

Some academic institutions have worn their distinctive iconographic emblems, kente or adinkra motifs, or both, on their anniversary garments' academic costumes, or other items of clothing in an effort to express their stories. It is unknown, though, if the emblems are acceptable in light of their ideas. Additionally, it is unknown if there is any written information on the symbols' philosophical meanings. Documentation and knowledge of the semiotic values of the culturally symbolic images will promote a better understanding of the institutions' identity and education; hence, this study is set to explore the various symbologies used for the academic gown designs of the Technical Universities.

2.5 Design Aesthetics

Design aesthetics in this study point to all the aesthetic connotations or attributes generated by an aesthetic object and recognised through the workings of the senses. The section proceeds by reviewing aesthetic definitions; aesthetic judgement, evaluation and appreciation; object forms and the need for their intended aesthetic interpretations; aesthetics of dress and aesthetic presentation.

2.5.1 Aesthetics

The term "aesthetics" has been variously defined and explained by many researchers. For example, as indicated by Lopes (2015), "aesthetics" comes from the ancient Greek word "aisthanesthai" (i.e., to perceive), which indicates a progressive and complicated set of connections associated with human sensory perception. In the view of Hekkert (2006), the term "aesthetics" is generally employed in describing the attributes of a design appearance. Specifically, according to Hekkert, it is about people's reactions showing the level of difference in appreciating a given design. This level of appreciation is determined by how an individual interprets, which may be influenced by emotional responses or comparisons to previous experiences (Pham, 1999). In like manner, the term "aesthetics" refers to visual forms of objects and sensory experiences associated with texture, harmony, order, and beauty (Venkatesh & Meamber, 2008). Aesthetics happen to be one of the parts played by a product's appearance (Creusen & Schoormans, 2005). Sound, smell, and taste are very vital for some products, whereas visual aesthetics form an important distinctive attribute for nearly all products (Bloch et al., 2003).

Pham (1999) opines that the concepts of "style", "fashion", "taste" and "originality" are also mostly associated with "aesthetics", and that whilst a style or fashion points to designs possessing a small number of characteristics often identifiable (for example, Art Deco), the idea of taste is about an individual's liking for, feeling of, or appreciation of a certain type of beauty or style.

2.5.1.1 Aesthetic judgement and appreciation

2.5.1.1.1 Aesthetic judgement

Lopes (2015) views developing a sense of aesthetics as a suitable method for approaching and appreciating the inherent perceptual qualities of things in the world, different from how they were created, as a sign of cultural capital (Bourdieu, 1984) and a detachment from the social, political, and ecological implications of sensory objects. According to Kim (2006), the concepts of aesthetics include balance, emphasis, movement, pattern, proportion, harmony, and variety. These are generally used in art education today. Visual product aesthetics in the world of fashion include elements that make up the appearance of clothing, such as material, proportion, colour, embellishment, shape, and size (Bloch et al., 2003). On the whole, socially, the degree of connectedness and autonomy might become the determinants of aesthetic experience (Berghman & Hekkert, 2017).

2.5.1.1.2 Appreciation of aesthetics

Demonstrating the difference between typicality and novelty, Biederman and Vessel (2006) established higher levels of appreciation for new stimuli only if observers are able to identify what is before them. Belonging to a group assures a degree of security which is impossible on the basis of individuality (Axelrod & Hamilton, 1981). This is why a point has been reached where objects that serve as symbols of group membership are found to be aesthetically pleasing. On this score, it is likely to take into consideration the need to enforce the group's autonomy by putting a premium on objects that represent the group's uniqueness. This move aligns with the sociological

arguments that concern the use of cultural taste as a means of asserting social status (Bourdieu, 1984).

The foregoing suggests that in evaluating and appreciating the design aesthetics and also designing the academic ensembles of the Technical Universities in Ghana, some of the most compelling design factors may be how much the design connects the universities' identity and their autonomy. So far there has not been any published literature on the design aesthetics of the higher educational institutions' academic gowns used in Ghana and the technical universities' gowns are no exception. This study purposes to do that with the intention of adding to the existing literature on dress designs of academic gowns.

2.6 Clothing, Identity, and Social Interaction

Clothing, being an identification tool, establishes symbolic boundaries between people in some ways, and clothes are employed by the fashion and clothing fields in creating and revealing culture and social identity (Akdemir, 2018). A piece of clothing has the ability to define a form of socialisation, ideology, history, class, community, and identity (Tajuddin, 2018). "A person with clothing stands out with national, wealth, and status background, and within it, certain attitudes and affinities can be pointed out toward specific cultural, professional, artistic, and distinct lifestyles" (Todorović, Toporišič, & Čuden, 2014, p. 322). They concluded that a person's clothing has never been just a shelter from the weather but also a means of expression, identification, and communication. Symbolically, clothing speaks about individuals' social identity regarding their wants and how they seek to appear in society (Davis, 1985). Similarly, literature has shown that dress provides a means of

communication and identity (Roach-Higgins & Eicher, 1992; Rudd & Lennon 2000; Twigg, 2009).

Neumann (2011, p. 121) notes that clothing creates a method for creating and displaying ourselves and what we are through visual methods. For this reason, Akdemir (2018) said members of a group don distinctive clothing that is required by the group in order to represent their identity. Waquet and Laporte (2011, p. 73), have recorded this: "The garment is always involved in a social context, and it puts the position of the individual in the face of the group." Interpreting the third premise of symbolic interactionism to clothing, Johnson et al. (2014) said, clothing is capable of producing several messages and allows different ways of sending messages. A message's interpretation is dependent on varied colours, textures, cuts, styles, or contexts. Besides clothes being visual signs of a language or nonlinguistic means of conveying information among people, they also act as witnesses and analysts regarding social activities, problems, history, people, and human habits. Put together, clothing offers a means for initiating communication at different levels, from everyday life to artistic expression (Todorović, Čuden, Košak, & Toporišič, 2017). Substantial attention is even paid to the clothes worn for special occasions like a job interview, a wedding or funeral, or a date (Larsson, 2014). Morris (1977, p. 213) as cited by Larsson (2014) states that "it is impossible to wear clothes without transmitting social signals. Every costume tells a story, often a very subtle one, about its wearer."

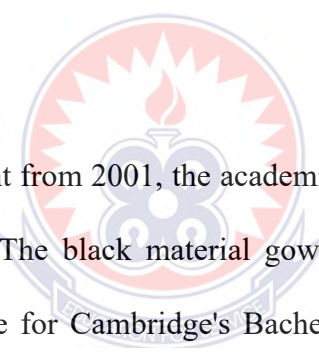
In line with the above, academic gowns are items of special clothing/uniforms that communicate the status of the wearer and the awarding institution. In light of this, designers and producers, as well as the authorities of various academic institutions,

should exercise caution when it comes to their design. This could be accomplished by bringing on board and incorporating the necessary design elements that will bring to fruition the semiotic power that corresponds to the academic institutions' philosophies and traditions. In so doing, the canker of identity challenges associated with the Ghanaian Technical Universities gowns will, to a very large extent, be controlled. The next section discusses academic gowns.

2.7. Contemporary Academic Gown Designs used in Some Academic Institutions around the Globe

2.7.1 Some European academic dresses

2.7.1.1 Cambridge gowns



According to Cox's account from 2001, the academic attire at Cambridge includes the following characteristics: The black material gown with open pointed sleeves still serves as the official attire for Cambridge's Bachelor of Arts programme. Only the forearm seam is meant to be open; the base is typically used as an armhole. The facings' inner portion has strings fixed to it, and the gowns are worn over subfusc garments. He claimed that in the past, bands for graduation, a white tie, and dark clothing were required in order to wear the Cambridge gown. The wearer simply needs dark clothing as of right now. A Cambridge gown is typically made of plain black fabric, though it could also be made of silk.

The degree of the wearer is determined by the style of the gown and hood. The hood is most likely the most distinguishing feature of the academic gown. The hood comes in two variations: a full shape and a simple type. The cape is absent from the simple

form, while the full shape comprises a cowl, liripipe, and cape. The modern Cambridge Master of Arts hood is a full-shaped style made of black silk that is lined in white. It has the classic headpiece, the cowl, and a cape that covers the shoulders. Currently, the hood is typically worn with the cowl partially turned inside out to see the lining material. See Figures 6 and 7 for some images of the Cambridge academic gown and hoods.



Figure 6

Cambridge University Gowns. Images Showing Cambridge University Bachelor of Arts (Left), Master of Arts (Middle) And Doctor of Philosophy Gowns (Right).

Retrieved from [ma status gown cambridge - Google Search](#)



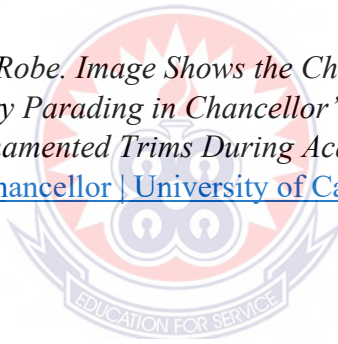
Figure 7

Cambridge Masters Gown and Hoods. Images Showing the University of Cambridge Masters Gown and Various Full Shaped Hoods and Lining Colours. [ma status gown cambridge - Google Search](#)



Figure 8

Cambridge Chancellor's Robe. Image Shows the Chancellor of Cambridge University, Lord Sainsbury Parading in Chancellor's Robe of Black Fabric Decorated With Gold Ornamented Trims During Academic Procession. Retrieved from [Installation of the Chancellor | University of Cambridge](#)



2.7.1.2 Oxford gowns





Figure 9

Oxford Bachelor Gowns. Images Depicting University of Oxford Black Bachelor's Gown with Different Identification Colours on the Hood to Distinguish Between Status and Degrees. Retrieved from [oxford ma gown - Google Search - Google Search](#)

The gown's cut and material, as well as the hood's cut, material, lining, and trimming, give each of these degrees its own distinctive look. The entire robe is constructed from red wool or polyester and has bell-shaped sleeves. The facings and sleeves of the robe are made of blue silk or art silk, while the body is made of scarlet material. See Figure 9 for some images of the gown designs. Figures 10 and 11 also exhibit the gown designs of Masters and Doctorate gown (Figure 10) and Chancellor's gown (Figure 11).



Figure 10

Oxford Masters and Doctorate Gowns. Images Exhibit Master Of Arts Gown (Left), Doctor of Divinity Gown (Middle) and Doctor of Music Gown (Right). Retrieved from [Students oxford university graduation hi-res stock photography and images - Alamy](#)



Figure 11

Oxford Chancellor's Ceremonial Gowns. Image Displaying Ceremonial Gown of the Chancellor of University of Oxford Made of Black Damask Fabric and Festooned with Gold Ornamental Designs to Match. Retrieved from [oxford university gowns - Google Search - Google Search](#)

2.7.2. Academic dresses in the United States

2.7.2.1 The Harvard University

The Code bachelors' pattern is used at Harvard University, and it is designed with black worsted stuff, with crow's foot in the degree-color found on both facings at the underside of the yoke (Figure 12 left). The corresponding hood is made of black worsted stuff Edinburgh simple (s4) shape, which is three feet (900mm) long and with a crimson silk lining. At the present time, baccalaureate graduates at Harvard do not

use hoods (Hoffman 2009). The headwear is a black worsted stuffed square with a matching black tassel.

On the other hand, the master's degree gown (Figure 12 middle) is the Code masters' style, having black silk or black worsted stuff, with the crow's foot in the color of the degree embossed on both sides of the facings, under the yoke just like the bachelor's one. There is no difference between the master's hood and the bachelor's hood except that the master's hood is three and a half feet (1050 mm) long. The headgear for the master's degree is a square cap made of black silk (not velvet) or black worsted stuff with black tassel to go with it.

Doctors' gowns mostly use the Code doctoral pattern consisting of crimson silk or crimson worsted stuff, with black velvet facings extending round the yoke, including three velvet stripes in black colour fixed on both sleeves, three on each side with pointed ends (Figures 12 right & 13). The front facings on which the degree-colored crow's foot is situated join the hem of the gown with three pairs of loops for honorary degrees. Doctor of Jurisprudence (JD) degree holders use the Code doctoral pattern in black silk or black worsted stuff, with black velvet facings and sleeve bars, including the purple crow's feet embroidery on both front facings. The JD's hood is just like the bachelor's, but it is four feet (1200mm) long with the headgear being the same as that of the masters. Non-doctorate holders or non-holders of Harvard degrees but who are University Council members wear the Harvard doctoral gown with the crow's foot in the color of their own subject studied.

The presidential costume (Figure 13) consists of a gown which is made of heavy ribbed black silk, with a narrow flap collar similar to the Oxford lay gown in use at present, extending as the front edging.



Figure 12

Some Harvard University Academic Dresses. Images Showing the Black Bachelor (Left) And Masters' Gown (Middle) and Crimson Doctoral Gown with Velvet Front Panel and Bars (Right) All with the Crow's Feet Embossed at the Chest Level.

Retrieved from [Harvard university academic gowns. images - Google Search](#)

The yoke has three rows of braids with black cord in the back and one row across the front. The sleeves are fixed to the gown at the shoulders with the use of a row of fluting. An ornamental toggle is connected on the back of the gown, which, according to Hammond, was originally used to tie back the collar of the gown. This was much bigger during the nineteenth century (Hoffmann, 2009).



Figure 13

Harvard University Ph.D. and President's Gowns. The Image Shows the President of Harvard University, Larry Bacow in Black Ribbed Silk Gown (Foreground, Middle) Flanked by a Provost and Six Honorary Degree Recipients. Retrieved from [Six receive honorary degrees from Harvard – Harvard Gazette](#)

The sleeve of the gown is of the 'hanging' pattern trimmed with bands of black velvet, also similar in shape to the Oxford lay gown. The gown has stringed outfits similar to that of Cambridge and is worn over a black ribbed silk cassock, closed to the waist and decorated with seven frogged buttons. The fastening of the cassock has gone through variations over the past decades and is mainly what distinguishes the

cassock of today from that of yesterday (Hoffmann, 2009). The cassock's having a low-stand collar with sloping sides helps the visibility of the collar and tie (or bands, in relation to the nineteenth-century Harvard clergyman presidents). The sleeves of the cassock end in turned-back cuffs, each embellished with three frogs and buttons. Both the cassock and the gown have a floor-length and are mostly used without a hood (Hoffmann, 2009). See Figure 12 for some of the gown designs.

2.7.3 Academic gowns in some Australian Universities

2.7.3.1 The University of Sydney

The Academic Dress Standards for the University of Sydney (2015), shows that the University of Sydney's academic gown designs for the various positions and ranks are modeled on the Oxbridge patterns. Exemplary, the academic dress for the Doctor of Philosophy and other doctoral degrees is a master's gown of black cloth with 15 cm of faculty/discipline designated colours, which are also employed for the hood linings to match the black cloth trencher cap. For higher doctorates, gowns are supposed to march with a black velvet bonnet and gold cord, including a festal gown to match with a hood of scarlet cloth with a facing and lining in accordance with the faculty's designated colors. In respect of the academic dress for Honorary Fellows of the University, a master's gown of black cloth and a stole of 15 cm in width of royal blue silk having an edging of 5 cm in gold silk are required to be used.

From the standards, officers of the University of Sydney use gowns that befit their status, similar to the Chancellor of the University of Oxford. The distinction between the gowns lies in the designs. The chancellor's gown is more elaborate and uses gold ornaments for the yoke, facings, sleeves, and tassel, with the cap also edged with

gold, which is similar to that of the Pro-VC and VC. The Fellow of the Senate uses the habit of the Fellow's degree, or a stole, which is 15 cm wide in gold silk with an edging of 5 cm in royal blue silk. The Dean's habit is of a black silk gown similar to the master's degree one, with a tippet of black silk edging of white fur and a lining of dark blue silk, to match with a black cloth trencher cap.

It continues that the academic dress for masters is a gown similar to the one used at the University of Oxford or Cambridge by Master of Arts (MA) degree holders. The headgear is a black cloth mortar board with the hood being black silk. The bachelors are gowns similar to those worn by graduates holding the degree of Bachelor of Arts (BA) at the University of Oxford or of Cambridge.







Figure 14

University of Sydney Gowns. The Images Display the Academic Gowns Used by the University of Sydney. From Top, Bachelor Gown (Left), Masters Gown (Middle) and the Doctoral Gown (Right). The Bottom Image Also Displays the Ceremonial Gowns for the Officers of the University Led by the Chancellor (Foreground). Retrieved from [Academic dress for the Sydney University chancellor - Google Search. - Google Search](#)

Like the masters, the bachelors also have a black cloth trencher cap and a hood of black silk. The holders of graduate diplomas or postgraduate diplomas wear a gown meant for the bachelors of the university, a black cloth trencher cap, and a pleated neck stole. At times when a graduate diploma or a postgraduate diploma does not have a designated neck stole, the dress is to be that of the highest award for which the diplomat has qualified (Academic Dress Standards for the University of Sydney, 2015). See Figure 14 for some of the images of the gown designs for the bachelor, masters, doctorate and University Officers.

2.7.4. Academic dress in some African universities

African academic institutions, like their counterparts in the Commonwealth nations, use academic gown designs borrowed from the Oxbridge pattern. The components of the gowns used in Africa are predominantly the robe, the hood, and the headwear, which are reflections of what pertains in the other commonwealth countries. Academic distinctions such as diploma, bachelor, masters, doctors, university principal officers, and other recognised positions within an academic institution are used to design the gowns. They are also designed to create institutional differences based on institutional philosophies. The use of distinct institutional and faculty/college colours and logos may serve as the objects of institutional and faculty/college differentiation. In Africa, whilst certain institutions mainly use the designated institutional and faculty colours and logos, others prefer using certain African symbolic images (such as the adinkra symbols and kente designs) or a combination of the two to visualise their iconographic identities. The discussion following centers on some African countries like Kenyatta University in East Africa, and West African countries like Ghana (University of Ghana).

2.7.4.1 The Kenyatta University (East Africa)

The official robes for the current chancellor and other university officers, such as the vice chancellor, university council chairman, and council members, are distinctively and elaborately designed and sewn to befit their positions and status at Kenyatta University. As found in Newton (2014), the Chancellor gown is made up of a dark blue satin gown of the same shape as the doctoral gowns, but with a purple collar with the university coat of arms on each side of it. The sleeves have been lined using satin

in a lighter shade of blue and with three velvet sleeve bars of a light blue which have been edged with gold. The gown has a front facing referred to as the Kenyatta belt front facings, being 11 cm in width designed with colored triangles and diamonds and having its outer edge in gold colour. The hood is of the full-shaped type, designed in yellow-gold satin. It has a red lining with a purple chevron in the cowl, and the cape is bordered outside with red. The headwear is fashioned with a black round velvet bonnet having a blue rim to which a gold cord and tassel are fixed.

The Vice Chancellor's robe is similar to that of the Chancellor but has a lighter blue colour. The sleeve has bars which are designed in gold colour, and the front panel is also the Kenyatta belt front-facing type, having a width of 9 cm and adorned with coloured triangles and diamonds. Similarly, the hood is of the full-shaped type of red satin with a yellow lining and green chevron in the cowl, and the cape has been narrowly bordered outside using yellow. The headwear has the same design as that of the chancellor, but the tassel is shorter.

The robe of the Chairman of the Council is made of scarlet cloth with bell sleeves and a black satin lining. Unlike the above-stated officers, the council chair's robe's front-facing is fashioned with a yellow-gold satin of 7 cm in width. The sleeves have three black bars, and the headwear is a black velvet round bonnet designed with a scarlet rim and a gold cord with a tassel attached. At Kenyatta University, the chair does not use a costume hood, unlike the Chancellor and the Vice Chancellor. On the other hand, council member's robes are designed with maroon cloth and have bell sleeves, which are lined with black satin. The front facings are 10cm wide black velvet with a matching 4cm yellow-gold satin on the outer edge, and a round velvet bonnet

headgear with a maroon rim. Like the council chair, the council members do not use hoods.

Aside from the official robes, the various academic gowns for various degrees, like the bachelor, masters, doctorate, and higher doctorate degrees, are also fashioned in a way that expresses the academic status of the wearer. For instance, Newton (2014) shows that the bachelor robes consist of black cloth with open wing sleeves, similar to the basic CNAAC design (b1). Similar to the Chancellor and the Vice Chancellor, Kenyatta belt front facings are employed for the front panels but only 6 cm wide, with black triangles having their outline in gold. The hood is of a simple shape identical to (s9), constructed with black cloth and with a cowl edging of 2.5 cm on the outside in the color of the school. It has a black cloth mortarboard with a black tassel (h1) to match.

The master's degree gown is made of black cloth with long glove sleeves designed to open at wrist level. It also has a Kenyatta belt with a front facing of 7 cm wide, decorated with dark blue and very pale-yellow triangles. Unlike the bachelor's, which has a simple shape, the hood for this degree has a full shape (f3) and is made of black cloth that is lined and edged with 2.5 cm of school colour on the outside of the cowl and cape. This degree also employs a black cloth mortarboard (h1) with a gold edge around the skull and a gold tassel.

The PhD gown, in contrast to the master's gown, is designed using bright blue cloth and has bell sleeves (d2). The sleeves have been lined with blue satin and are adorned on the outermost part with three horizontal gold bars. It also possesses the Kenyatta belt front facing of 7 cm in width and is garnished with blue-green and gold triangles.

The hood is the full-shaped type (f3), constructed with blue cloth, lined and edged with 2.5 cm of school colour on the outside of the cowl and cape. The black round velvet bonnet (h2) type with a blue rim and gold cord with tassel is the designated headwear for this degree, which is identical to the Chancellor and the Vice Chancellor's cap. The higher doctorate gown (Figure 13 bottom right) comprises bright red cloth with bell sleeves (d2). The sleeves are lined with satin in a lighter red and adorned with three horizontal gold bars outside. The Kenyatta belt front facing of 7 cm has also been designed with red and gold triangles. Like the PhD's, the higher doctorate also employs the full shape (f3) pattern of hood, which has been designed using bright red cloth, lined and edged with 2.5 cm on the cowl and cape with the school colour. The headgear consists of a black round velvet bonnet (h2) type with a bright red rim and a gold cord attached to a tassel to match.

At Kenyatta University, there are fourteen (14) schools, and each school has its own distinctive colours used for the hood lining to differentiate one school from the other. The hood colours range from light green for Agriculture and Enterprise Development to pink for the Visual and Performing Arts. Figure 15 contains some images.





Figure 15

Kenyatta University Gowns. The Images Depict the Various Levels of Kenyatta University Gowns. Top from Left, Chancellor (First) VC (Second), Council Chairperson (Third), Council Member (Forth), Bachelor (Fifth), Masters (Sixth), Ph.D. (Seventh), and Higher Doctorate Gowns (Eight). Source: Newton (2014). Factors influencing the evolution of academic dress at the Kenyatta University, Kenya, Transactions of the Burgon Society, 13, 8-27. <https://doi.org/10.4148/2475-7799.1106>

2.7.4.2 Some Ghanaian universities' academic gowns

Like the academic gowns already discussed above, the local academic dresses are also adapted from British and American designs. The level of the degree or status attained (i.e., undergraduates, bachelors, masters, doctorates, university officers, and the like) has their respective gowns worn. The distinctions in the gown designs include the headgear, robes, and hoods. The elaborate nature of the gowns varies according to the status of the wearer. That is, whilst the undergraduate gowns are simply designed, the university officers' robes are crafted to depict their authority and lordship, and these designs vary uniquely per the dictate of the philosophies of the various academic institutions. Whereas certain academic institutions have adopted the collegiate system to separate the bachelor's gowns and use the same design system for equivalent masters' degrees especially, Kwame Nkrumah University of Science and Technology (KNUST), there are other higher educational institutions that practice the equivalent degree systems in classifying the gowns for bachelors, masters, and doctorate degree graduands and holders such as University of Ghana (UG) (Howard et al., 2015). Besides, others employ distinctive designated colours to denote academic departments or faculties (Handbook on Academic Ceremonies, 2012; Howard et al., 2015).

2.7.5.2.1 The University of Ghana (UG)

To cite as an example, University of Ghana possesses eight varied academic gowns used by their students as follows:

- For matriculation ceremonies, plain black knee-length undergraduate gowns are used (UG Committee report, 2014).

- The non-professional programs at the bachelor's level (BA, BSc, and LLB) use the conventional black bachelor's gown with the front decorated with yellow and black "akyempem" kente and having yellow for the hood lining, plus a black mortarboard and tassel to complement (Figure 16, Bottom). The professional degree gowns, such as the bachelor of medicine (MB and ChB), use red and black "akyempem" kente with a red/crimson hood lining and the black mortar board cap and tassel to match (Figure 16, Top) (Newton, 2014; Osei Poku, 1999 citing Gyapong, 1995).
- For master's degree gowns, the conventional black master's degree gown with a white "akyempem" kente and the same colour in the hood lining, as well as a matching black mortarboard and tassel (Figure 17). "Akyempem" means "you have given me a thousand pounds" (Newton, 2014).
- The PhD gown is crimson in colour, with a front panel embellished with "gold and black" akyempem alternating with "owo aforo adoben," a gold, crimson, and green kente strip. The resultant pattern is referred to as "afuakwa," denoting that "one man does not build a nation," representing the plurality of ideas. This design has a hood lining of black velveteen, with the base of the drop sleeve edged at the top with black velveteen, as well as having a black bonnet and gold tassel to match (Figure 18). The doctor of letters (DLitt.) and doctor of law (LLD) gowns feature the "edwinasa" kente strip, which means "skill is exhausted" (Newton, 2014, p 17).

Other gown designs that represent professional degrees are as follows:

- Law: Purple;
- Engineering: Gold;

- Dentistry: Yellow, blue, and lilac colors (Committee report, 2014).



Figure 16

University of Ghana Undergraduate Gowns. From Top, Bachelor Gowns (First and Second), Retrieved from [Some Beautiful Scenes From This Year's University Of Ghana Graduation - Kuulpeeps - Ghana Campus News and Lifestyle Site by Students](#)



Figure 17



Figure 18

University of Ghana Master's Gown. The Image Shows the Master's Gown Design Made of Charcoal Black Fabric with White Akyempin Facing, White Hood Lining and Black Mortar Board Cap to Match. Retrieved from [Some Beautiful Scenes From This Year's University Of Ghana Graduation - Kuulpeeps - Ghana Campus News and Lifestyle Site by Students](#)

Figure 19

University of Ghana Ph.D. Gown. The Image Shows University of Ghana's Ph.D. Gown, Crimson in Colour with Multicoloured Front Panel Kente Designs (Afuakwa) to Match. Source: Newton (2014, p. 17). Factors Influencing the Evolution of Academic Dress at the Kenyatta University, Kenya, Transactions of the Burgon Society, 13, 8-27. <https://doi.org/10.4148/2475-7799.1106>



Figure 20

University of Ghana Ph.D. and Management Gowns. The Image Exhibits a Cross Section of University of Ghana's Ph.D. Holders (Background) And Principal Officers (Foreground) In Gowns with His Excellency Nana Addo Danquah Akufo Addo, the President of the Republic of Ghana in Black Suit (Middle). Retrieved from [University of Ghana Chancellors gown - Google Search - Google Search](#)

The officers of the university robe in black velvet ceremonial gowns and mortarboards with a strip of gold fabric around the cap's base and a gold tassel to suit, except the Council Chairman's dress, which is wine-coloured with a gold tassel. The University Registrar, in spite of using an ensemble made of black fabric material for the robe, mortarboard, and tassel, the quality and kind of the fabric differs from that of the other officers (Congregational Manual, 2010). This presupposes the differences in authority at the university. Figure 19 contains some of the images.

So far this section's review centred on a sample of some academic gown designs around the globe. It has revealed the similarities and differences in the various designs pointing to the fact that the academic costumes currently in use are based on the Cambridge and Oxford traditions. While others simply utilise British or only

American designs, some combine the British tradition and the American pattern. Typically, gowns are made to fit the wearer's position or level of academic success (diploma, bachelor's, master's, doctorate, higher doctorate, honorary degrees, and for university officers). The university officers' gowns, in contrast to the simpler designs on those worn by undergraduates, are intricately designed to demonstrate their position of authority. The material type and quality, the shape or kind of the sleeves, the length of the hood, the colour, the communication symbol, and other factors have been used to identify and differentiate an item. The academic attire of African higher educational institutions is essentially the same as that of most other countries. However, one of the distinctions between the Oxbridge model and some African, especially Ghanaian gowns, has been the use of traditional symbolic images like the kente designs, adinkra symbols, and other emblems found on the gowns, apparently to bring a touch of the Ghanaian culture and traditions to reinforce the African identity. Till date there appears to be limited literature on the design history, philosophy and aesthetics of the Ghanaian tertiary institutions' academic gowns more especially the universities. Documentation on and knowledge in these areas will help advance the gown designs and reduce identity crises. This study thus has the burden to research into the stated areas.

2.8 Summary of the Chapter

In summary, this chapter has been devoted to the extensive review of related literature concerning topics that could contribute to establishing the design history, philosophies and aesthetics of academic ceremonial gowns for academic institutions, in particular the Technical Universities in Ghana. Moreover, the development of academic costumes in Europe in the middle ages and later in America in the 1700s

and the later pursuit of standardisation in America's own way, which resulted in the constitution of a commission (the intercollegiate commission of academic costumes) and the enactment of a code called the Intercollegiate Code of Academic Costumes, have been dealt with. The code became a turning point for America's quest for new and distinctive uniformity in gown usage against the background of the unwarranted excesses that characterised the academic costumes, which Lockmiller described as being "bizarre" and "confusing". Later alterations in the form of adoptions and re-adoptions were seen in the 1932 Academic Costume Code, the 1959 and the 1986 re-adoptions at all levels of academic achievement bordering on the uniformity of materials for the robes, hoods and caps; mode of wearing the gowns; type of sleeves; designated colours; length of hoods; inclusion of binding and front facings; and so on. To date, such metamorphosis has yielded the expectations of the American desire for uniqueness and still leaves room for more alterations.

To elicit the requisite elements for design philosophies, the institutional/organisational philosophy as an object of engendering mission and vision statements and the subsequent formation of policies, beliefs and arguments, objectives, goals, and the like of institutions and their influence on the image of academic institutions were reviewed. The review also covered the various iconographic symbols of identification, such as heraldry, crests, and logos, employed by families, organisations, and institutions for the purpose of identification and recognition. In addition, the symbolic essence of kente designs and adinkra symbols as aesthetic objects and mediums of communication was also presented.

For design aesthetics, the various areas of importance covered include the various definitions of aesthetics, aesthetic judgement, and appreciation. Also included was the influence of clothing on identity and social interaction.

The chapter has also documented some of the academic ceremonial outfits worn by academic institutional communities in selected countries around the world. The extent to which the designs vary from one institution to the other and from one degree to the other due to the differences in their philosophies and status has been presented. The differences include, among other things, gown colours; hood lining and trimmings; hood lengths, size and shape; headgear and type; gown length; and degree of elaboration. Whereas the gowns for the diploma are simply designed, the degree of elaboration increases as the degree level or status increases. Therefore, gowns for the principal officers are given much detail to befit their power and authority. Though the academic dresses used in most African universities very much look like their foreign counterparts, the object of distinction may lie in the use of the African indigenous symbolic images incorporated in the designs to portray their African identity. In particular, certain Ghanaian academic institutions use a fusion of adinkra and kente designs, or separately together with other appropriate semiotic expressions to communicate their identity.

It should be noted that so far as institutional philosophies are unique, visual identities must be unique, and for that matter, institutional academic gowns ought to be unique. Hence, the various academic gowns used by the Ghanaian technical universities ought to be unique to forestall identity crises. The level of craftsmanship put into the gowns, their similarities and distinctions, and the information that has been recorded about

them with regard to their many qualities must all be carefully examined for educational purposes.



CHAPTER THREE

METHODOLGY

3.0 Overview

This chapter comprises of research philosophy/paradigm, research design, case study, population, sample, research design, data collection methods, data collection tools, data analysis, thrustworthiness and authenticity, credibility, and ethical issues.

3.1 Research Philosophy

This study employed the interpretivist paradigm (Flick, 2014). The interpretivists contend that truth and knowledge are subjective, as well as culturally and historically situated, depending on people's experiences and how they perceive them. They also contend that a researcher cannot be separated from their own values and beliefs, as these will invariably influence how data is collected, interpreted, and analysed (Blackwell, 2019, p. 9). Interpretivist researchers accept that the world is diverse and that knowledge is contextual, dynamic, and emergent, according to Kroeze (2012). The study aligned itself with the interpretivist philosophy in investigating design history, philosophy, aesthetics, and the perception of gown users about the academic gowns used by the Technical Universities in Ghana.

3.2 Research Design

3.2.1 Historical case study

The study also employed the historical case study approach because of its unique strength in its capacity to deal with a variety of evidence including documents,

artifacts, interviews, and direct observations, as well as participant-observation beyond what might be available in a conventional historical study (Yin, 2018). Historical case study has proven to be a successful research strategy in a real-world research project and the creation of this research plan is crucial since it opens up fresh avenues for thought regarding potential study questions (Widdersheim, 2018, p. 151). In this study it was applied to answer research questions 1 to 3.

3.2.2 Multiple case study

In dealing with the study of the seven Technical Universities, the study employed multiple or collective case study approach. According to Baxter and Jack (2008), this strategy allows the researcher to analyse within and across settings. Stake's (2006) study also demonstrates that multiple-case research studies facilitate a more detailed understanding of the cases as a unit through comparing similarities and differences inherent in the design. This results in stronger and more dependable proofs as compared to single-case research results in that the former permits inclusive exploration of research questions and theory development. Baxter and Jack (2008) have affirmed that in spite of the robustness and reliability of multiple case study, it demands more time and money to conduct. Alemnge and Andongaba (2021) adopted a qualitative approach, using the multiple case study design to carry out the investigation with the help of an interview and an observation schedule in studying the impact of teaching methods and materials on the teaching of citizenship education in Cameroon.

3.2.3 Multi-Method

The study also borrowed the multi-method research approach. This method encompasses different types of qualitative data such as interviews and observations (Creswell, 2015, p. 3), producing a better explanation of a research problem as compared to research based on a single methodological approach (Creswell, 2015). In multi-method qualitative research, qualitative interviews can be an individual interview, a focus group interview, an online interview, or others. In the same vein, observational research ranges from on-site participant observations, observation through video-or audio-recording, online observations, and the like (Järvinen & Mik-Meyer, 2020, p. 10-16). Research has shown that multi-method qualitative research enhances triangulation (Miles & Huberman, 1994). Some researchers have employed various methods of qualitative multi-method approaches in their studies and found them to be successful (i.e., Bamford, Lee, McLellan, Poole, Harrison-Dening, Hughes, Robinson, & Exley, 2018; Palakshappa & Gordon, 2006). Informed by the foregoing, this study used a multi-method approach by interviewing participants, observing and noting the gowns, and collecting information from congregation brochures and other documents for the purpose of data gathering to facilitate data triangulation.

3.2.4 Cross Sectional Design

The study also used cross sectional design because it was time-bound. Allen (2017) has observed that cross-sectional designs are used by empirical researchers at one point in time to describe a population of interest (universe). A cross-sectional study design is conducted relatively quickly and is inexpensive—particularly when compared

with prospective studies (Levin, 2006; Setia, 2016). Many researchers have employed cross-sectional methods to conduct research. For example, Rosemann and Szecseny (2004) conducted cross-sectional studies using semi-structured interviews, whilst Ekanayake, Ahmad and McKenzie (2012) conducted a similar study using in-depth qualitative interviews. In this context, the study employed a descriptive cross-sectional design to describe the characteristics of the technical university population and the gown designs they wear at one moment in time.

3.2.5 Narrative Inquiry

The study mainly employed the narrative inquiry. This uses the stories themselves as the primary source of information (Bleakley, 2005). One method of conducting narrative research is to use the stories that research participants have lived and told, analyse them through narrative analysis, and then retell the stories of the individuals chronologically while adding social, cultural, and historical context and keeping an eye out for the key themes in the lived experiences (Creswell, 2007).

In order to tell the story behind the technical university gowns concerning the design history, philosophy and aesthetics, the participants' account was structured and merged with the already-existing records and images. While the inclusion of pictures introduced a new layer of meaning and provided evidence of the lived experiences of the academic gown wearers and designers, the narrative inquiry nevertheless produced a narrative understanding of the lived experiences (Bach, 2008). Interactions with those who wore the dresses, the gown designers, fashion educators and others, supported the effort to elucidate the study's goals. The narrative inquiry tools (i.e., the stories, field notes, conversations, interviews, and photos) assisted in seeking out

additional details, investigating explanations, interpretations, and discussing style conventions for the stories (Ting, 2005).

3.3 Population

Population refers to the set or group of all the units on which the findings of the research are to be applied (Shukla, 2020). This refers to every person who suits the criteria that has been set by the researcher for research participants and may be either large or very small (Saumure & Given, 2008). It is 'any group of individuals that have one or more characteristics in common that are of interest to the researcher (Best, 1981, p. 8 as found in Essel, 2017). Participants for this study included students, convocation members (both teaching and non-teaching), management members, and gown and logo designers.

3.3.1 Target population

The target population covered all the academic gown wearers of the ten (10) Ghanaian Technical Universities, made up of student graduands, convocation members (teaching and the non-teaching staffs) and senior management members (Registrars, Pro-Vice Chancellors, Vice Chancellors and Council Chairpersons). Also targeted were the academic gown designers. These groups of respondents have the appropriate responses to the questions that the study sought to answer.

3.3.2 Accessible population

The accessible population is the final group of participants from which data is collected by surveying either all its members or a sample drawn from it (Bartlett et al., 2001). The study sampled from 4,583 teaching and non-teaching staff and 67,371

students as well as from gown and logo designers. These figures were obtained from the aggregation of the institutions' population records (Tables 2 & 3).

3.4 Sampling and Sampling Techniques

3.4.1 Sampling

Sampling is about selecting a subgroup of cases from the whole units so as to allow for the drawing of general conclusions regarding the complete units from which the selection was made (Parasuraman, Grewal, & Krishnan, 2004; Singleton, & Straits, 2005). Qualitative researchers often use non-random sampling techniques. They make their sampling decisions by focusing on specific people, situations, or sites since those stated indicators provide specific—'biased' or 'information-rich'—perspectives (Patton, 2002). This study used maximum variation and expert sampling techniques under purposive sampling techniques to collect the data.

3.4.2 Sampling techniques

3.4.2.1 Purposive sampling

Purposive sampling was used in this study because dealing with the design histories, philosophies, aesthetics of the gowns and gown wearers perceptions of the technical University gowns required the right participants with sufficient details to provide the data needed for the study's success. Purposive sampling, otherwise known as purposeful sampling, is about a group of sampling strategies normally employed in qualitative research. Mainly, in purposeful sampling techniques, instances that are deemed to have rich information are chosen to answer the research question (Emmel,

2013; Flick, 2014; Mason, 2002; Patton, 2015; Ritchie et al., 2014). Selecting a specific strategy so as to obtain an "information-rich" instance is controlled by the research question and the study's goal (Palinkas et al., 2015). In this study, both maximum variation and expert sampling techniques were used. Considering the varied characteristics of the technical university communities who either wore the gowns (i.e., student graduands, teaching and non-teaching staffs, including management members), some of whom were in the arts, or did not wear the gowns but held positions that enabled them to take decisions on academic gown procurement or production, maximum variation sampling was used. This technique was also used to ensure the internal and external validity of the research. This was because it was ideal for describing the phenomenon, taking cognisance of all its characteristics (Higginbottom, 2004; Merkens, 2004). Again, expert sampling techniques (Etikan & Bala, 2017) were also used to select the institutions' registrars for onward data collection from the experts in gown and logo designs in the various study areas. According to Etikan and Bala, in order to collect data for this sort of sampling, experts or recognised experts in the field must give their permission before starting to interview a person or group of interviewees. To more effectively construct the opinions of people who are experts in a certain field, expert sampling is used. It is also used to support the validity of another method that uses a variety of samples. These participants helped obtain the needed data for a successful study. The study's participants represented the above group of people.

3.4.2.2 Sampling size

Qualitative researchers favour picking information-rich instances pertinent to the research question and sample composition as against sample size (e.g., Crouch &

McKenzie, 2006; Patton, 2015), though others contend that considering sample size is apt in qualitative research as well (e.g., Onwuegbuzie & Leech, 2005; Sandelowski, 1995). Fundamentally, factors such as the extent of variation in the phenomenon under study (Bryman, 2016; Charmaz, 2014; Francis et al., 2010; Palinkas et al., 2015; Robinson, 2014), the goal of the research (Patton, 2015), as well as the scope of the theory or conclusions (Charmaz, 2014) are the determinants of sample size suitability. This means the greater the dissimilarity, the greater the sample size required. Guest et al. (2006) reached a saturation after 12 interviews and Francis et al. (2010) suggested that an initial sample size of $n = 10$ is ideal for examining the extent of saturation reached. Both Guest *et al.* (2006) and Francis *et al.* (2010) stress that this recommendation is for interview studies on phenomena that are comparatively of the same kind. Based on the foregoing, the study used 66 participants of which 30 (45.45%) answered objectives 1, 2 and 3 in each case, due to a lack of documentation and knowledge of academic gowns on the part of the institution Registrars. Forty-eight (72.72%) of the participants answered questions on Objective 4. It should be noticed that 12 (18.18%) of the participants' comments addressed all the first four objectives.

3.5 Data Collection Instruments

3.5.1 Semi structured interview

The semi-structured interview's primary goal is to elicit an informant's personal experience to a specified circumstance from his or her lived reality (Datko, 2015). According to (Adams, 2018), designing and conducting semi-structured interviews entails, selecting and recruiting the respondents, drafting the questions and

interview guide, techniques for this type of interviewing, and analysing the information gathered. The study used semi-structured interview both face-to-face informal conversations and, on the phone, (Kumar, 2005, p. 124), using audio recordings (Rutakumwa, Mugisha, Bernays, Kabunga, Tumwekwase, Mbonye, & Seeley, 2019; Tessier, 2012), for research questions 1 to 4. For Monrouxe (2009), audio diaries are increasingly being employed in various social science disciplines. Markham and Couldry (2007) view that audio diaries are considered more favourable to their written counterparts on the basis of the added benefits participants derive from them.

3.5.2 Observation

“Observation is the systematic description of the events, behaviours, and artifacts of a social setting” (Marshall & Rossman, 1989, p. 79 as cited in Kawulich, 2012). Direct observation occurs when an observer looks at the events unfolding in front of his or her eyes at the time they occur (Ciesielska et al., 2018). According to Ciesielska et al. (2018), Observational research design covers the research aims; access to the field; sampling (i.e., the management of time and space, objects, social actors, interactions, routines rituals, episodes); the observer and notes taking. Specifically, the study used direct participant observation (Ciesielska et al., 2018) or obstrusive observation (Hamrick et al., 2022) to observe the gowns of the selected technical universities and took notes of their similarities and differences within and across the institutions by using visual Diary writing and photographic documentation (Seivewright & Sorger, 2017). While some of the images were taken by the researcher during the field work, others were obtained from the participating institutions. Sullivan (2010) cited in Cook (n.d.), supports the use of Audio or Visual Records because, according to him, they

offer an impartial and true nature of the interview, providing a considerable framework and an integrative picture of the situation.

3.5.3 Document review/ Analysis

Pre-existing data are frequently combined with other types of data for triangulation, an approach aimed to boost the credibility of a study, and completing a document analysis can also alleviate some of the ethical difficulties connected with other qualitative methodologies (Morgan, 2022). Document analysis, also known as archival studies, is based on the use of many types of texts and documents, the most common of which are content analysis and narrative approaches (Ciesielska et al., 2018). Finding, selecting, appraising (making sense of), and synthesising data contained in documents is part of the analytic procedure. Document analysis produces data—excerpts, quotations, or complete passages—which are subsequently structured into primary topics, categories, and case examples using content analysis (Labuschagne, 2003, cited in Bowen, 2017, p. 28). To answer research questions 1–5, this study reviewed documents such as congregation brochures and other documents collected from Technical Universities, as well as books and journals. Those data collection instruments aided the process of researching the design history, philosophy, and aesthetics of the technical university academic gowns.

3.6 Data Collection Procedure

Data collection on the academic gowns was preceded by seeking permission from the eight technical universities who were upgraded to the technical university status in 2016. First, permission to collect data were sought through the Registrars to the universities through email and, due to a lack of acknowledgement of receipts, they

were later followed up by a hardcopy version of the documents through Expedite Mail Service (EMS) and, later on, through persistent phone calls and text messages to confirm receipts of the letters and get feedback from the institutions. Of the eight (8) institutions, seven participated in the study.

There were different classes of interview guides meant for the various categories of respondents. Appendix A1 is for the key administrative personnel of the institutions, A2 for the gown wearers, and A3 is for the gown designers and makers. The interview guides were structured into sections in line with the research questions. The preamble contained the topic, the significance of the academic gowns, the reason for the study, a consent request, and the name and contact of the researcher. Generally, the sections started with the biographical data and personal records of the participants, and in the case of the administrative personnel interview guides, they contained a portion that sought information about the study areas. The guides were structured to cover design history, design philosophy, and design aesthetics connotations among others. For the gown wearers, the questions were based on their bio data and personal records and their perceptions about the technical university gowns. The interview guide was prepared for the interview respondents to aid the data collection using semi-structured techniques.

The observation checklist or guide (Kawulich, 2012) also sought to elicit data from the types of academic gowns in use in respect of their outward features. The parts of the gowns focused on were the connection between the institutional philosophy and the design philosophy; the distinctiveness of the gown designs among the various levels of status; the intrinsic qualities (formalism) of the outward features of the gowns; the expressive (emotional) qualities of the gowns; and lastly, the symbolic

connection of the gowns with the institution's identity. The checklist was used to observe all the gowns for triangulation intent (See appendix B for the details of the observation checklist).

Each interview session was preceded by seeking the consent of the informants by disclosing the intent of the study to them and making them aware of how the information would be protected and the option available should they decide to back off of the study. The interview proceedings were recorded using mobile phones, and in a few cases, notes were taken instead of recordings when the phones developed some faults. Responses were probed further to establish the why and how of the feedback to achieve the intended purpose, bearing in mind the appropriate research ethics (Kumar, 2005; Adams et al., 2015, as cited in Leavy, 2017). The interview guides were given to participants in advance so as to acquaint themselves with the demands of the questions for better preparation (Hill, Thompson & Williams, 1997).

Interviews were conducted at participants' offices, fashion laboratories, under trees, and on phones. One of the participants provided written answers to the interview guide and sent his feedback through a WhatsApp message. Six of the interviews were done on the phone, whilst the rest were face-to-face. The interview started on the 12th of October 2021 and ended on the 22nd of April 2022. The interview lasted 39.7 minutes on average, ranging from 3 minutes to 2 hours, 8 minutes, and 6 seconds. 54.9% of the participants answered questions on research questions 1, 2 and 3, whilst 77.27% answered questions on research question 4.

3.7 Data Analysis Plan

Acting on Schreier (2012), data analysis was conducted after finding the field access, taking sampling decisions, and having the data collected, recorded, and elaborated (e.g., transcribed). The intensive data analysis was done after the data collection, with mini-analysis done in the course of the data collection. The recorded data was transcribed manually, and the QSR Nvivo 10 software was used in the coding of the interview transcripts into themes and subthemes and sub-sub themes. To achieve that, qualitative content analysis was employed. That is, creating a coding frame, segmenting the material, trying out the coding frame, evaluating the trial coding, carrying out the main coding, and so on (Schreier, 2012).

This analysis included inductive framework analysis, which aimed at answering the research questions by focusing on the interests, objectives, and relevance of the research (Pope et al. 2000). Aside from the interviews, visual data acquired in the form of photos of academic gowns (Banks, 2018) was analysed using descriptive and constructionist methodologies (Marvasti, 2014, pp. 359–361). The descriptive technique, for instance, took notes of the many elements of the dresses as they were viewed, but the constructionist approach discovered the meaning-making processes about the artefacts based on the respondents' perception or understanding (Marvasti, 2014). The investigation also included a comparison of the institutional logos, which encapsulate the individual universities' beliefs and values, with the gowns created.

The intention was to ascertain how much their philosophies reflect the identities through the gown designs. Whilst research questions 1, 2 and 3 were manually coded, research question 4 was coded with the QSR Nvivo 10 software owing to the

enormity of the respondents and their respective data collected were analysed descriptively.

The entire analysis for the research questions 1, 2 and 3 was positioned in the framework of the object-based theory (Taylor, 2002), material culture (Riello, 2011) and Gupta's fivefold methodological model approach (Gupta n.d.). This took into consideration the contextual characteristics of the academic gowns used by the studied institutions; their oral history, philosophy, aesthetics, description, and documentation to bring out their design history, philosophy, and aesthetics; as well as their ceremonial significance among such institutions.

Historical and narrative analytic tools were applied in the data analysis. To confirm the reliability and authenticity of the data acquired, the study employed the logic of taking into account the source and context of the data and corroborated it. In historical research, old writings, eyewitness stories, other oral history, and interviews are identified, analysed, and interpreted (Špiláčková, 2012, p. 23). In this study, data analysis was done using the narrative format to highlight consistency, inhibit disagreement, and provide an interpretation that made sense (Holloway & Jefferson, 2000, as cited in Essel, 2021, p. 28). With the agreement of the institutions, images of the academic robes and symbols worn by the Technical Universities were included to support the historical narrative.

3.8 Trustworthiness and Authenticity

According to Sandelowski (2008), a study is only considered reliable if the research report's reader believes it to be so. Credibility, which generally corresponds to the positivist idea of internal validity; dependability, which refers more to reliability;

transferability, which is a type of external validity; and confirmability, which is mostly a presentation issue, are other divisions of trustworthiness (Sandelowski, 2008). In order to ensure objectivity and reliability, qualitative researchers take into account member checking, triangulation, meticulous transcription, methodical planning, and coding (Gunawan, 2015). Since all researchers strive to conduct the best research, using reliable tools, appropriate techniques in accordance with the purpose and scope of their studies at the appropriate times and using their creativity and expertise to produce the best results should be considered in all studies (Ghafouri & Ofoghi, 2016). According to Amin et al. (2020), the reader has more faith in the study outcomes when the evidence of reliability and authenticity is documented. It is not anticipated that one study will simultaneously apply all the authenticity or trustworthiness criteria. In practice, this is not feasible (Amin et al., 2020). However, while doing a qualitative study, researchers should use more than one (Creswell, 2012).

By performing member checks, meticulously transcribing the interview transcript, and categorising the data from the transcribed interviews into themes, sub-themes, and sub-sub-themes, this study ensured the validity and authenticity of the research. Utilising many methods such as semi-structured interviews and observation also guaranteed the triangulation of the findings for an improved conclusion (Gunawan, 2015). Transferability (Sandelowski, 2008) of the study may be conceivable because the study areas share traits, as shown by the institution profiles in Chapter 4. In order to improve fairness and, ultimately, authenticity in the study, a thorough contextual explanation of the context, subjects, and other people involved—including participant

quotes and other data compelling interpretation and synthesis (Amin et al., 2020) was applied.

3.9 Generalisability

A practical approach to assessing generalisability in qualitative studies is to use the same criteria as for validity: systematic sampling, triangulation and constant comparison, proper audit and documentation, and multidimensional theory (Finfgeld-Connett, 2010). In determining the generalisability of research, consideration is given to whether findings can be applied to other contexts, settings, or groups (Noble & Smith, 2015, p. 34). These findings can, to a very large extent, be generalised across the ten technical universities in Ghana since seven of them were covered in this study. Again, the study areas are more or less similar in characteristics in terms of the calibre of the participants, the missions and visions, programmes they run, and the academic ceremonies observed; and they are all public institutions, and this could be seen from the brief profile of the institutions in chapter four (4) of this thesis.

3.10 Ethical Consideration

Roshaidai and Arifin (2018), have said that the in-depth nature of the study process in a qualitative study lends ethical considerations special relevance. Research's legitimacy and public trust are ensured by adhering to ethical standards. Prioritising ethical concerns in research should happen during the study design process. So as to achieve the greatest impact, dealing with ethical problems and hurdles is consistent with the study approach (Rana et al., 2021).

It is the responsibility of the qualitative researcher to ensure participants to have a power of freedom of choice to involve in the study, protect the participants' identity throughout recruitment and dissemination process, and promote clear and honest research reporting without deception to readers (Roshaidai & Arifin, 2018, p. 32).

This study recognised the moral basis of the conduct of the research, potential conflicts of interest, and benefits of the participants in the study (Adams et al., 2015) as cited in Leavy (2017). Approval was sought from the universities that participated in the study through official letters to their respective registrars. Again, the interview guide contained a preamble that captured informed consent and the voluntary participation of the participants and stated that refusing to participate or withdrawal from the study was allowed (Leavy, 2017; Roshaidai & Arifin, 2018). Participants approved of their participation after hearing the informed consent read to them prior to each interview session (Fisher & Anushko, 2008, as cited in Rana, 2021). See the appendix A for the interview guide. Trust was built, rapport developed, and expectations set by demonstrating the ethics of honesty, integrity, and caring. In addition, participants were made aware of the time commitment for the study (Leavy, 2017, p. 39). Methodological transparency was ensured by justifying the research design procedure and the methods employed, was sensitive to the interview transcript, and represented the data in the best way possible considering the positive influence that it would have on the readers (Leavy, 2017, p. 39). Also requested from participants was their permission to record the interview. By withholding their names and identities during the data collection, analysis, and reporting of the study results, the participants' anonymity and confidentiality were maintained (Roshaidai & Arifin, 2018). Participants were thanked verbally and through text messages following each

interview session for their support. The registrars of the institutions received thanks via text messages for approving the study and assisting in ensuring its success at each of their locations.

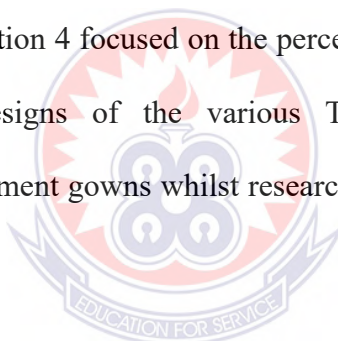


CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Overview

The chapter starts with the brief profile of the study areas and continued with the demographic characteristics of the participants. It then presents the findings of the five research questions, namely research questions 1, 2, 3, 4 and 5. While research question 1 presents the design histories of the academic gowns used in the Technical Universities (TUs), research question 2 worked on the design philosophies underlying the gowns, research question 3 also dealt with the design aesthetic connotations of the gowns, and research question 4 focused on the perceptions of the gown wearers about the academic gown designs of the various TUs encompassing the student, convocation, and management gowns whilst research question 5 dealt with the design framework.



4.2 Profile of the Study Areas and the Participants

4.2.1 Brief profile of the study areas

The Technical Universities in Ghana are situated in the regional capitals of Ghana and hence bear the names of their respective regional capitals: ATU in Greater Accra; CCTU in Central; HTU in Volta; KsTU in Ashanti; STU in the Bono; TaTU in the Northern; TTU in the Western regions. Their first names are their respective capital towns.

These Technical Universities underwent a number of transformations after being founded between 1949 and 1984 as trade or technical institutes. The following universities were established: ATU (1949), CCTU (1984), HTU (1968), KsTU (1954), STU (1967), TaTU (1951) and TTU (1954). These universities were established to provide skills for the nation's industrialisation process (ATU), deliver pre-technical education (HTU), artisan training (KsTU), technical and vocational education and training (STU), trades training centre (TaTU), and commercial and technical programmes at the craft and technician levels (TTU).

Under the Polytechnic Act of 1992 (PNDC Law 321), they were all granted polytechnic status in order to train students up to the HND and supply the country with middle-skilled labour. The majority of them became polytechnics in 1992, with the exception of CCTU (1993) and STU, whose year of conversion from technical institutions to polytechnic status varied (1997). The Polytechnic Act of 1992 (PNDC Law 321), which had been in effect for fifteen years, was replaced by the Polytechnic Act of 2007 (Act 745), granting polytechnics the authority to grant their own HND degrees. Nine years later, the Technical University Act of 2016 (Act 992) was published in order to convert polytechnics into Technical Universities in 2016. With the exception of Tamale Technical University, which received this designation in 2018, all study areas became Technical Universities in 2016. The goal of the transition was to require Technical Universities to provide higher education and award diplomas, degrees, and other credentials related to engineering, science, and technology as well as TVET, applied arts, and associated fields.

They all have the same objective of being respected institutions of excellence in the delivery of education in engineering, science, and technology, technical and

vocational, and applied arts, with hands-on-experience and entrepreneurial development to satisfy Ghana's needs for higher and middle-skilled labour. Along with having the same missions, they share the same visions, which may be summed up as being respectable institutions with significant regional and international influence that provide high-quality career-oriented programmes to benefit society. The values that are considered as a whole across the study areas are: competence, competitiveness, responsiveness, efficiency, and effectiveness, with integrity and excellence being the most prevalent. Other values include: commitment, pacesetting, equal opportunities, creativity, excellence, discipline, dedication to duty, innovation, good team spirit, and a motivated workforce.

Table 5

Statistics on Academic and Non-academic Staff Members at the Study Areas as at 2021 /2022 Academic Year

Inst.	Academic Staff					Total	Ph.D.	Non-Acad.	Total
	Prof	Snr. Lect.	Lect.	Assist. Lect.	Techs./others				
ATU	4	69	96	59	3	231	57	423	654
CCTU	6	37	51	67	16	177	34	227	404
HTU	5	28	90	123	10	256	53	493	749
KsTU	14	114	91	75	-	294	114	393	687
STU	4	43	89	118	2	256	36	366	592
TaTU	8	55	71	83	10	227	51	376	603
TTU	9	106	97	116	7	335	37	559	894
Total	50	452	585	641	48	1776	382	2,837	4583

NB: PhD is not part of the grand total because it has already been factored into the total number of the academic staff

There are 177 to 335 academic staff members, which includes associate professors ranging from 4–14, senior lecturers (28–114), lecturers (51–97), assistant lecturers (59–123), technicians, and others (2–16). The non-academic staff members' abilities also range from 404 to 894. In all, there are 50 associate professors, averaging 7.14;

452 senior lecturers, averaging 64.57; 585 lecturers, averaging 83.57; 641 assistant lecturers, averaging 91.57; and 48 technicians and other ranks, averaging 6.86 per institution and, on the whole, totaling up to 1,776 academic staff members in the seven study areas, of which 382 hold doctorate degrees. The number of Ph.D. holders per institution ranges from 34 to 114, averaging 54.57 per institution. Overall, as indicated by the brief profiles that have come before, each Technical University shares characteristics with the other Technical Universities, allowing studies to be generalised to all ten Technical Universities in Ghana (Table 2).

Table 6

Statistics on Tertiary and Non-tertiary Students, Faculties, Departments and Programs at the Study Areas as at 2021/2022 Academic year

Inst.	Students					Total	Faculties	Dept. s.	Programs.	
	Tertiary			Non-Tertiary	Total				Tertiary	Non-tertiary
	M.Tech	B.Tech	HND							
ATU	-	4,102	12,919	17,021	1668	18,689	5	16	32	22
CCTU	-	1,197	1,674	2,871	794	3,665	4	15	19	8
HTU	13	286	3,834	4,123	220	4,343	5	20	46	6
KsTU	47	4,722	4,523	9,292	2769	12,061	6	27	55	21
STU	-	2,528	6,211	8,739	76	8,815	5	15	41	48
TaTU	-	906	3,658	4,564	-	4,564	5	20	61	22
TTU	32	5,624	9,214	14,870	364	15,234	5	28	69	61
Total	92	19,365	42,033	61,480	5,891	67,371	35	141	323	188

The majority of the study areas (ATU, HTU, STU, TaTU, & TTU) have five faculties, with one having four faculties (CCTU). Six faculties are part of KsTU, in addition to

two schools, two institutions, directorates, and centers (KsTU). Everybody else has institutes, directorates, offices, and centers. Only one of them (KsTU) has a faculty of health sciences, whereas the others all have faculties or schools of commerce, applied science and technology, applied arts, engineering, and faculties of built and natural environments.

The student body at each of the seven Technical Universities ranges from 3665 to 18689, or an average of 9,624 students per institution. The number of faculties/schools per institution ranges from 4 to 6, with an average of 5 faculties. The departments average 20.14 per institution and range in size from 15 to 28. There are 511 programs offering degrees such as the B. Tech, HND, certificates, and, in some cases, the M. Tech (323 tertiaries and 188 non-tertiaries). There are 61,480 tertiary students in total, including 92 M.Tech., 19,365 B.Tech., and 42,033 HND students. Additionally, there are 5,891 non-tertiary students, bringing the total number of students in the seven Technical Universities to 67,371, with an average enrollment of 8,782.9 per institution (Table 3).

4.2.2 Demographic characteristics of the participants

The study included 66 (100%) participants from 7 Technical Universities, (TUs) including two from Kwame Nkrumah University of Science and Technology, (KUNST) and two gown makers who have produced gowns for two of the technical universities. The findings showed that the majority of the participants (77.3%) were male and the rest were female (22.7%), with the majority of them being between the ages of 51 and 60 (47%), 41 and 50 (31.8%), and 31 and 40 (12%), with the remainder of the percentages catering to the rest of the age ranges. The majority

(54.5%) are associate professors, senior lecturers, lecturers, or assistant lecturers; 18.2% are registrars, deputy registrars, senior assistant registrars, and junior assistant registrars; and 9% own fashion or academic gown production businesses. The remaining 18.3% is allocated to the other ranks. Many of them (30.3%) have been at their current jobs for 11 to 15 years, followed by 26 percent (5 to 10) years, 15.2 percent (less than 5) years, 13.6 percent (21 to 25) years, and the rest of the other age ranges. Forty-eight-point five percent (48.5%) of those polled have a background in fashion, textiles, art, or design. Close to 14% of the participants make decisions on academic gown designs as committee or management members, while the rest have only gown-wearing experience. Every participant has previously worn or continues to wear academic gowns in accordance with their respective ranks and academic achievement or positions. The majority of participants (50%) had master's degrees, followed by Ph.D. (31.8%), and the rest had bachelor's, HND, and other qualifications (JHS & SHS). Nearly 41% of the participants are Deans, Head of Departments, Registrars, Pro-VCs, or Directors, with the remaining 59% covering the remaining positions. The participants' backgrounds demonstrate how diverse their experiences are in terms of contributing to the study.

4.3 Objective 1: Design History of the Technical Universities' Academic Gowns

The design history of the participating technical universities was covered in this section. The following technical universities are among them, listed in the following order: Accra Technical University, Cape Coast Technical University, Ho Technical University, Kumasi Technical University, Sunyani Technical University, Tamale Technical University, and Takoradi Technical University.

In all, 30 participants were interviewed about the design history of their respective institutions' gowns. Accra Technical University (3), Cape Coast Technical University (2), Ho Technical University (5), Kumasi Technical University (8), Sunyani Technical University (2), Tamale Technical University (4), and Takoradi Technical University (6) Their ages ranged from 41 to over 60, with their highest educational qualifications ranging from bachelor's to PhD. Masters (56.7%), PhD (36.7%), and the rest being bachelor degree holders. The majority (83.3%) are male participants, while the remaining are female. They have worked in their institutions for between 5 and 30 years, and only a few (10%) have retired. Most (53.3%) are either fashion designers, gown producers, or in the arts, whereas 36.7% take decisions on their institutions' gowns. The majority (60%) are either HoDs or former HoDs, former deans, or registrars or former or deputy registrars.

4.3.1 Design history of Accra Technical University gowns

Academic gowns for graduands at Accra Technical University, formerly Accra Poly were introduced in early 2000s, when the first batch of HND students graduated. The gowns were rented from the traditional universities such as University of Ghana, University of Cape Coast, and Kwame Nkrumah University of Science and Technology for the qualified wearers and were worn in line with the wearer's academic status or official position.

The history of Accra Technical University's (ATU) academic gown designs dates back to its polytechnic era in 2005, when the institution began creating its first academic gowns. The fiscal implications of hiring the gowns, as well as the institution's loss of identity and brand image, were motivating factors in this choice

according to anecdotal report. The gowns they hired, as well as other local gowns and foreign academic designs, impacted Accra Technical University's gown designs locally.

4.3.2.1 The HND gowns

Prior to the designs, the executive committee, made up of the top management of the institution, instructed a fashion designer and her colleagues, who were staff members, to sew the gowns with the given fabric bought by the executive committee. One of the designers of the gowns said that, "around 2005, I was there when they called me and gave me mauve fabric and kente stoles for producing gowns for the institution. This was because I had already produced gowns for the University of Education, Winneba". These gowns are currently used by the Bachelor of Technology graduands.

Between 2011 and 2012, Accra Technical University began producing the gowns in-house by the production unit of the Fashion Department for the HND students. Unlike the procedures used for the first gowns, there had to be formal procedures in place due to the procurement law of Ghana before the gowns could be given on contract. According to the Public Procurement (Amendment) Act, 2016, Section 43 of Act 663 amended, subsection (1):

The procurement entity shall request for quotations from as many suppliers or contractors as practicable, but shall compare quotations from at least three different sources that should not be related in terms of ownership, shareholding or directorship and the principles of conflict of interest shall apply between the procurement entities and their members and the different price quotation sources.

In the context of this, one of the respondents explained the procedure and processes followed before the gowns are awarded on contract saying:

The Executive Committee instructs the fashion department's manufacturing unit to create a gown toile sample for their review and feedback. Following the approval of the sample design, the designers are asked to develop five samples of the design toiles, this time using the ATU colours, along with their cost estimates.... Other designers are asked in for presentations on their samples to make the bidding more competitive. After the patterns and fabrics have been decided upon, they are presented to the council for a final vote. As soon as the design is accepted, we begin work...

The designs go through quality control procedures as they are shown to management for their input and approval at the various stages of the design and production, and the identity of the institution is considered in the gown designs. The respondent added:

We consider the identity of ATU, which is why we use colours in the design of the gowns... Our designs are unique among the lots. But they do not clearly identify us as Accra Technical University. The logo must be there to complete the identity of ATU.

ATU HND gown designs have gone through series of modifications since 2005 to date (see figure 20 a, b & c). Concerning the designs that keep on changing the respondent said: "Every year, the gown designs keep on changing because of the difficulties we sometimes face during their production." The gown is black in colour, full length, and has woven kente cloth strips, primarily blue with yellow horizontal stripes at the opening ends of the gown. The hood is made of the same fabric as the rest of the outfit. Some of the hood designs include yellow edging, while others do not. However, all of them feature coloured hood linings that correspond to the colours of the faculties. Green lining for faculty of Business, wine for Faculty of Engineering / Built environment, white for Faculty of Applied Arts and yellow for Faculty of Applied Science (Figure 20 b, d, e & f). The headwear was of the mortar board variety, with a tassel in the fabric's colour. This gown was designed and produced in 2005 by Emma Donkor, Joyce Oppong and Joyce Amoah during the rectorship of

Prof. Ralph Kingston Asabre. The next HND gown design (Figure 20b) is comparable to the first one in terms of form, style and colour. The distinction lies in the front face, where "nsonoma" (star) motifs have been incorporated. The gown was designed and produced in 2015 by the CDM Fashion Coutre when Prof. Sylvester Achio was the interim VC. The present design (Figure 20 c) is identical to that of Figure 20a and b. However, the change is in the gown's front face. This style features a chain-like motif in multiple colours of red, blue, and gold that runs the length of the gown from the hem to the breast level. This new design, designed in 2021, by the Fashion department's production unit during the Vice Chancellorship of Prof. Samuel Nii Odai, resulted from the intensive use of the first two gowns already displayed (Figures 20a and b). All three designs are still used by the HND graduands and in totality there are about 1500 gowns.





(a)



(b)



(c)





(d)



(e)



(f)



Figure 21

Accra Technical University HND Gowns. ATU HND Gowns Showing the Front Facings and Rears of the Gowns. From Top, First Gown Designed in 2005 by Emma Donkor, Joyce Oppong and Joyce Amoah. The Second Gown was Designed in 2015 by CDM Fashion Coutre Whereas the Third Gown was Designed in 2021 by the Fashion Department of ATU. Images at The Bottom Also Show Various Hood Linings Representing the Faculties. Image Taken by the Researcher in November, 2021.

4.3.2.2 Bachelor of Technology gown

The Bachelor of Technology robes are mauve in colour, with white stars ("nsonoma") interlaced with white adinkra symbols called "nkyinkyim" on the front face on a mauve background. The sleeves are bell-shaped and have a white satin hood lining.



Figure 22

Accra Technical University Bachelor of Technology Gowns. ATU Bachelor of Technology Gown Showing the Front Facing and the Back with Hood Designed by Emma Donkor in 2005. Image Taken by the Researcher in November, 2021.

The hood is a classic oxford style in the same colour and fabric as the rest of the outfit. The hat is also of the mortar board variety, and it is the same colour as the gown (Figure 21). The gown was designed and produced by Emma Donkor of the fashion department in 2005 when Prof. Asabre was in charge of ATU. The gowns were first assigned to the Bachelor of Technology graduands of the Fashion

department in 2009, which happened to be the only department running the Bachelor degree programme. Currently, all five faculties are running bachelor programmes. The gowns are used as supplementary gowns for the Bachelor of Technology graduands during graduation ceremonies. For now, there are 36 such gowns left.

4.3.2.3 Masters' convocation gown



Figure 23

Accra Technical University Masters Convocation Gowns. ATU Gown for Convocation Members with Masters' Degree Qualification Showing the Front and the Back. Designed in 2016 by CDM Fashion Coutre. Image Taken by the Researcher in November, 2021.

A black gown with a black mortar board and a tassel is also available. The gown's front face is covered in interconnecting white rhomboidal-shaped kente woven motifs that run the length of the gown. The hood shell is the same colour and fabric as the gown, but it has white satin trimming and lining, as well as drop sleeves. The fabric is

synthetic and is typically worn by convocation members who have earned a master's degree. There are 144 such gowns in use now (Figure 22). It was designed by CDM Fashion Coutre, a gown contractor in Accra in 2016 during Prof. Sylvester Achio's era as interim VC.

4.3.2.4 PhD convocation gown

There is also a Ph.D. gown for convocation members who have earned a Ph.D. degree.



Figure 24

Accra Technical University Ph.D. Convocation Gown. ATU Ph.D. Gown for Convocation Members Who Hold Ph. D. Degree Displaying Front Facing and Side View. Designed by the CDM Fashion Coutre in the Year 2016. Image Taking by The Researcher in November 2021.

The predominant colour is wine, with black velvet front panels. Bell shaped pointed sleeves with a black satin hood lining are available. It does not have any bars, unlike the other PhD gowns in Ghana and elsewhere. It has a black velvet Tudor bonnet cap with a matching red and black cord cascading down the cap. The hood's outside fabric is the same as the main garment fabric and colour, but it has a matching black satin lining. The gowns are 25 in number (Figure 23). The Ph.D. gown was designed and produced by the production unit of the Fashion department of ATU in 2016 during Prof. Sylvester Achio's tenure as the interim VC.

4.3.2.5 Gowns for the deans of faculties



Figure 25

Accra Technical University Faculty Deans' Ceremonial Gowns. Some ATU Faculty Deans Dressed in Their Designated Ceremonial Gowns (Foreground) Designed by CDM Fashion Coutre in 2017. Image Obtained from the Public Relations Office of ATU in November, 2021.

The Academic Deans of ATU wear identical academic ceremonial gowns. In this aspect, there are no faculty distinctions. The entire outfit is made of a blue-black

cotton fabric and has a full-length gown with a dropped sleeve. The sleeve includes slits that are bordered with yellow to allow for free mobility of the hand. The frontal half of the gown has a blue, black, and gold woven kente cloth with the university's logos on both sides of the openings (Figure 24). The decorations on the front panel are a collection of adinkra symbols known as "nkyinkyim," which literally means "life's twists and turns." It is topped with a blue-black velvet Tudor bonnet cap with yellow cords. The institution's logo is located on the yoke of the gown (Figure 24). The gowns, along with those for top management, were sewn by CDM Fashion Coutre, a private gown contractor in 2017.

4.3.2.6 Ceremonial gowns for senior management



Figure 26

Accra Technical University Senior Management Members' Ceremonial Gowns. Image of Senior Management Members in their Ceremonial Robes. From the Left, Pro-VC, Council Chairperson, VC and Registrar. Designed in 2017 by CDM Fashion Coutre. Image Obtained from the Public Relations Office of ATU in November, 2021.

ATU's senior management members have their own distinct ceremonial clothes that they wear at academic functions (Figure 25). Essentially, the fabric and colours of the clothes, as well as the embellishments on the gowns, are identical to those worn by academic deans. The headwear is similar, but the cords are different. However, whereas the Deans wear pointed bell sleeves with a slit at the top of the sleeve, senior management wears inverted T-sleeves (Figure 25). They were designed in 2017 by CDM Fashion Coutre during the era of Professor Ameko.

4.3.2.7 Proposed gowns

4.3.2.7.1 Honorary degree gown

Honorary Causa robes are proposed for honorary degree awards. It is currently at the design stage. This gown features a black velvet Tudor bonnet cap with a rope hanging down as a tassel in the color of the university. It is a full-length gown with drop sleeves lined with yellow satin fabric and a red cord and button used as a fastening to keep the turn up at the upper base of the sleeve. The frontal area of the gown features two strips of coloured fabrics that are yellow and blue all the way down to the hem. The hood has a yellow edge and lining, while the shell is the same fabric and color as the gown. The gown was designed in 2021 by the fashion department of the institution during the era of Prof. Samuel Nii Odai (Figure 26).

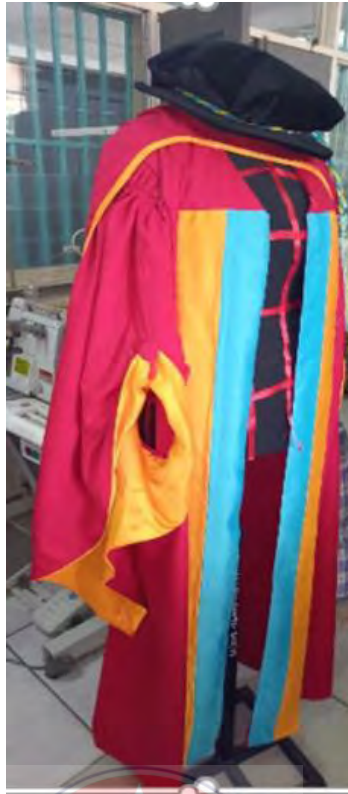


Figure 27

Accra Technical University Honorary Degree Gown. Proposed ATU Honorary Degree Gown Designed by Fashion Department in 2021. Image Taken by the Researcher in November, 2021.



4.3.2.7.2 Non-teaching and teaching gowns

There are also gowns envisaged for senior members of the university who do not hold PhDs (see Figure 27). Both the teaching and non-teaching staff's gowns are represented by front panels with blue satin strips, whereas the gowns are blue for the teaching and green for the non-teaching. The mortar board-style caps have the same colour and fabric as the main garments, and they have a hood as well. These were also designed and produced in 2021 by the Fashion department (Figure 27).



Figure 28

Accra Technical University Proposed Convocation Gowns. Convocation Gowns for the Non-Teaching (Green) And Teaching Staff (Blue) of ATU Showcasing the Front and the Back Details. Designed in 2021 by The Fashion Department. Image Taken by the Researcher in November, 2021.

Currently, Accra Technical University has 1,500 gowns and are still producing more.

Because of the inadequacy of the academic gowns for the students and the

convocation members, they still hire gowns from outside sources though they rent out their gowns to other institutions that are interested. The Accra Technical University gown designs appear to be unfocused and exploratory in nature. As a result, ATU must develop gown and ceremonial policies informed by their institutional philosophies, shared values, and history, as well as their objectives.

4.3.3 Design history of Cape Coast Technical University gowns

When Cape Coast Technical University, formerly Cape Coast Polytechnic (C-Poly), graduated its first batch of HND students in the late 1990s, it used academic gowns borrowed from the University of Cape Coast (UCC). In addition to the UCC, the institution rented gowns from the University of Education Winneba (UEW) from time to time for their undergraduates and convocation members.

The idea of the institution acquiring its own academic gowns began in 2007, during Mr Koomson's era as the rector, when the University required academic gowns for the then impending graduation ceremony, but University of Cape Coast was unable to provide them because that was the same time, they had chosen for their graduation ceremony. The other reasons stemmed from the difficulties associated with renting gowns and the consequent identity conflicts caused by using gowns from another institution.

However, the fashion department at the time did not have the capacity to manufacture the gowns due to a lack of human resources and equipment at the time. As a result, the congregation committee decided to award the contract to a private individual to sew for the institution. CCTUP1 said, "And so, per the decision taken by the congregation committee at the time on the need for the gowns, it was agreed that the

gown contract be given to a private person to handle since the fashion department then did not have the capacity to do that."

4.3.3.1 Undergraduate gowns



Figure 29

Cape Coast Technical University Undergraduate Gowns. CCTU HND Gown Facing Designs on Different Colour Backgrounds. Gowns Were Outsourced from a Private Firm in 2007. Images Taken by the Researcher in November, 2021.

So, the private individual came in with various gown design samples, from which one was chosen. The original plan was to utilise printed kente fabric in the institution's colours, but that choice was scrapped due to the high cost. As a result, strips of the institution's colours were fashioned into blue woven rectangular staggered motifs

either on a red or yellow background to form the front facing of the students' robes to display the C-Poly's identity (Figure 28). CCTUP1 narrated the story as follows:

I was part of the congregation committee at the time, and we insisted that there was a need for academic gowns. You know, it becomes a problem, a challenge when you want to go and hire academic gowns and all that. So that necessitated acquiring the institutional academic gowns... I was tasked with leading and getting them done. The private person who contacted me showed me a lot of samples. Then we chose one... and then based on that... we had actually wanted a kente strip in front, but because of cost we could not get it done... We just created a strip of our colours—blue and yellow—because the time was short, we could not go through those tender processes.

Instead of the 500 dresses that were agreed to be created, only 322 were brought. This was due to the private individual's inaccurate estimate, which caused some friction between the provider and the institution.

The gowns were apparently constructed of blue-black gabardine fabric for the main garment, the hood, and the mortar board, with around 50mm wide blue woven designs on either a red or yellow backdrop spanning the full length of the gown at the front on both sides of the gown's opening ends (Figure 28). The lining of the hood varies in colour, with yellow, blue, and red symbolising school colours. Yellow represents applied science, red represents engineering, and blue represents business (Figure 29). Aside from the gown with blue woven motifs on a red backdrop (Figure 28 left), Figure 28 right depicts another form of the gown with its frontage facing on a yellow background. The gowns were outsourced from a private firm in 2007 during the rectorship of Prof. R.K. Nkum



Figure 30

CCTU Undergraduate Gowns. CCTU HND Gowns' Hood Types and Lining Colours for The Schools. Gowns Were Outsourced from A Private Firm in 2007. Images Taken by the Researcher in November, 2021.

4.3.3.2 Management gowns

4.3.3.2.1 First management gown

Aside from the student gowns, in 2010 during Mr Augustus Marx Koomson's tenure as the Acting Rector, another set of gowns was developed and produced for five (5) of the seven (7) management personnel at the time, which included the Registrar, Pro-VC, Auditor, Librarian, and Finance Director. The Council Chairperson and the Rector used to carry their own dresses to ceremonies, so they were not custom-made. The fashion department did the design and sewing without a precise concept. CCTUP1 continued:

During the Poly days, we considered all of them, including the Council Chairperson and Vice Chancellor, as the senior management members of the institution. Since the Council Chairperson and Vice Chancellor were attending academic ceremonies using their own PhD gowns, we did not include them. This time, the department designed and manufactured five of gowns. Because we needed only three weeks to finish the production, this one too did not go through any quality control processes, nor was it put on tender.

The inspiration and design concept came from the University of Cape Coast as well as overseas gowns. Instead of employing all of the institution's colours for the design, only yellow was used. The predominant colour of the clothing was wine, with a matching yellow satin front facing and sleeve lining. The sleeves were pointed, and the gown lacked a hood and the university logo. The cloth was of higher quality than that of the students. Despite the fact that it was not one of the official institutions

colours, the wine was used to distinguish students from management officers (Figure 30 left).



Figure 31

Cape Coast Technical University First Management Gown. Images Displaying the Gown (Left) And the Cap (Right). Designed in 2010 by the Fashion Department. Images Taken by the Researcher in November, 2021.

The headwear was the black velvet bonnet type with the yellow twisted cord to match the colours of the institution- the yellow and black (Figure 30 right). CCTUP1 had this to say concerning the design of the management gowns;

Honesty, honestly, we did not know the nitty-gritty of academic gowns at the time. If I have my own way, I would appeal to management to even re-construct it again... It is substandard because many factors were not considered. I will recommend that in designing, all the nitty gritty that will depict the institution will have to be considered.

4.3.3.2.2 The Current Management Gowns

When the old management robes were discovered to be unsuitable, the current ones which were designed in 2020 during the tenure of Rt. Rev. Ing. Prof. Joshua D. Owusu Sekyere as the Vice Chancellor were sewn in the days of the Technical University.



Figure 32

Cape Coast Technical University Current Senior Management Gowns. Image of Cape Coast Technical University Current Senior Management Gowns. From the Right is the Vice Chancellor, Followed by the Pro-Vice Chancellor and then the Registrar (Foreground). Designed in 2020 by University of Cape Coast Production Unit. Image Obtained from the Public Relations Office of the Institution in November, 2021.

The University of Cape Coast's production section developed and sewed them. The UCC management robes had a big influence on the gown designs. While UCC wears mortar board headwear, Cape Coast Technical University wears a Tudor bonnet. With the front panels, UCC's red is wider, and the yellow strip is narrower, which is the inverse of CCTU. One management member, CCTUP5, had this to say:

For our gowns, we looked at that of UCC. We actually copied from UCC and we turned the colours. You find out that with UCC, the red is broader, so the red comes before the yellow. And then in ours, we brought the yellow first before the red. The yellow is broader than the red.

The designs of the Cape Coast Technical University management robes are the same (Figure 31). Nonetheless, the number of strips on the wearer's sleeve serves as the point of differentiation. The greater the number of strips, the greater the wearer's authority. The dresses are mostly comprised of blue brocade fabric with yellow and red stripes running from the hem to the top back of the gown, where the crest is fixed on a yellow background. The sleeves are of the inverted t-sleeve type, and the armholes are trimmed with yellow cloth. It is a floor-length gown and embodies the colours of CCTU, as well as its most likely related philosophy, as evidenced by the colour scheme and logo used (Figure 31). The Finance Director, Internal Auditor, and Librarian were not included in the current management gowns because they do not execute any academic functions during academic ceremonies. CCTUP2 justified their exclusion from the gown designs as follows: "When we decided to sew new ones, we decided to sew for the Council Chairperson, Vice Chancellor, Pro-Vice Chancellor, and Registrar because they perform academic functions during graduation."



Figure 33

Cape Coast Technical University Convocation and Graduands in Rented Gowns. Images Show Cape Coast Technical University Convocation in University of Cape Coast Masters and Ph.D. Gowns (Top) and Graduands in Takoradi Technical University Gowns Combined with Cape Coast Technical University Gowns (Bottom) During the 18th Congregation of the University.

<https://cctu.edu.gh/site/cms/app/uploads/doc/2446703.pdf>

Till now, Cape Coast Technical University, like the majority of technical universities, continues to rent gowns from the University of Cape Coast and Takoradi Technical University for its students, and selected convocation members (Figure 32) due to financial restrictions caused by low enrollment as a result of fierce competition between the traditional universities and the technical universities, as well as among

the Technical Universities themselves. A former management member, CCTUP2, commenting on the hiring of the gowns, had this to say:

If you have the numbers, you will have the money to do other things. We are now hiring gowns. We are doing so because we don't have the money to sew the gowns that we need. Students pay graduation fees and that covers the gowns. But how much do they pay?

4.3.4 Design history of Ho Technical University gowns

Ho Technical University's academic gown usage history, like that of other technical universities in Ghana, can be traced back to its polytechnic days, when the first batch of HND graduates were showcased in 1997. From that time until now, academic gowns for academic ceremonies organised by the institution have been rented from the traditional universities for both students and convocation members of the university community, from Kwame Nkrumah University of Science and Technology (KNUST), the University of Cape Coast (UCC), and the University of Ghana (UG), respectively.

4.3.4.1 The undergraduate gowns

During the reign of Dr. Afeti as the rector, the first Ho Technical University and then Ho Polytechnic gowns were created by their own fashion department in 2006. The gowns were made up of a little more than a hundred (100) pieces and were intended for top-up B-Tech graduates. HTUP8, has stated that "the gowns were produced mainly for the top-up Bachelor of Technology programmes introduced by the University (Ho Polytechnic) in 2006. At that time, we had a top-up for Hospitality, Engineering, Agriculture, and automobiles."

The gown is blue-black and full-length, with pleated bell sleeves. It has various faculty colours of red, mauve, and so on, with satin strips attached to the opening ends of the garment to distinguish faculties. It has a blue-black mortar board kind of hat with a tassel in the same colour as the main clothing. However, they lack hoods. They are currently used for matriculation ceremonies by the convocation. Two of the designs are depicted in Figure 33. HTUP8 indicated that "currently we are still hiring gowns from the University of Ghana for the HND and B-Tech graduands and also for convocation members who do not have their own gowns. For the University of Ghana, they have special gowns for their diploma graduands, and that is what HTU hires for its HND graduands". The gown is basically blue-black with no hood and is full-length. The gowns are adorned with sashes to add colour to the gowns. University of Ghana (UG) bachelor gowns are worn by B-Tech graduands. Convocation members having a Master's degree wear UG master's degree gowns, which are the same gowns worn by M-Tech. graduands (Figure 34). Convocation members with Ph.D. degrees either wear gowns provided by their alma mater universities or, if they do not, wear Ph.D. robes provided by UG.

Ho Technical University began creating its own tailored gowns for HND graduates sometime in 2018. The underlying motivators for Ho Technical University's acquiring its own gowns for the institution's junior members were the high cost of hiring from outside, the lack of identity of the wearers, meeting students' needs, and also renting out to other institutions in need for the purpose of generating funds for the institution (IGF). HTUP4 has noted that:

Apart from the high cost of hiring and identity crisis, it is to meet the needs of the students. The idea of renting the gowns to other interested institutions could also be a

motivating factor in the quest for HTU to produce its own gowns.

The gown designs go through quality control procedures during the design and production of the gowns, as claimed by a senior lecturer in HTUP1. She indicated that "we design..." After the design, we produce one as a test and send it for approval. A presentation was made at the academic board meeting. The academic board took it to the council for approval process."The design, fabric quality, financial implications, differentiation in designs at different levels, and the colour of the institution are the foundations for design expectation and acceptability. The new gowns' design and principles were based on the earlier ones, which were made in 2006 during the Ho Poly era. HTUP8 noted that "that is where the whole concept started from, so when they were sewing the new ones, that was what they looked at".





Figure 34

First Ho Technical University Undergraduate Gowns. Image Showing the First Ho Technical University Bachelor of Technology Gowns Designed by the Fashion Department in 2006, Now Used for Matriculation by The Convocation Members. Images (Top) Taken by The Researcher in December, 2021 and Bottom from the PRO of ATU.



Figure 35

Ho Technical University Convocation Members and Graduands in Rented Gowns. Some Convocation Members in University of Ghana (UG) Masters' Gown with White Akyempim Front Face (Foreground) And Graduands in UG Black Diploma Gowns Without Front Face (Background) During The 17th Congregation Ceremony.
<https://www.globalfmonline.com/ho-technical-university-holds-17th-congregation/#prettyPhoto/1/>





Figure 36

Ho Technical University Gowns. Images Showing HTU Undergraduate (HND) Gowns Exhibiting Faculty Colour Front Facings, Tassels and Cap Bases. Designed in 2018 by Dr Elizabeth Obinnim. Images Taken by the Researcher in December, 2021.

The new Ho Technical University gowns are similar to the 2006 gowns, but the faculty colours are used for the tassels, base of the headpiece, front facings, and hood linings (see figure 35). The new gowns, like the old ones, are devoid of institutional logos. The gowns have not been worn by the institution but have been rented to other institutions. HTUP8 said that "we are still hiring. So, inspired by what the University of Ghana has done, they decided to sew without a logo so that any institution could hire." Currently, approximately 3000 undergraduate gowns are available for Ho

Technical University, and more will be added until the required number of gowns is manufactured before hiring ceases. After the students' gown project is completed, there are plans to sew for the convocation members. Funds have been set aside to produce the dresses in stages in-house. Until the dresses are manufactured, the designs are forwarded to management for comments and feedback at each step of the design before they are finally approved for production.

4.3.4.2 Management gowns

4.3.4.2.1 First management gowns

During the Polytechnic era, Ho Technical University management members began wearing the institution's bespoke robes. HTU management now possesses three (3) sets of four (4) ceremonial dresses. The first garment was constructed of red brocade with blue and gold accents. The gown's front facing is a light blue satin strip that runs from the hem to the back, with a logo at the front and back to form a colour. The sleeve is inverted t-shaped, with gold embellishments of strips denoting the wearer's authority. The gown is accompanied by a mortar board-style headpiece made of the same fabric and color as the main attire, with a yellow tassel to match (see figure 36 left). It was designed by Dr. Obinnim in 2014/2015, during the era of Prof. E.K. Sakyi as the rector.

4.3.4.2.2 Second management gowns

The institution developed the second set of management robes in 2016–17, during the era of Prof. E.K. Sakyi as the rector. The basic fabric of this gown was cotton, with blue velvet strips and white piping forming panels at the opening ends of the gown

and the emblem stamped at the breast level. The velvet strip extends from the dress's hem to the back, forming a collar to which another logo is attached. The sleeves are bell-shaped, with the upper half being red and the lower part being blue, which has bars of stripes for rank differentiation. The hat, like the previous, is a mortarboard-like blue colour with a white base and a red tassel to match (Figure 36 middle).

4.3.4.2.3 Third Management Gowns

In 2019/20, in the era of Prof. Ben Q. Honyenuga as VC, the fashion department created and constructed the third (3rd) and current ceremonial outfit for management. The gown's main clothing is made of royal blue brocade fabric, with red and white stripes forming the frontal facing from the hem to the rear. Like the first one, it has t-sleeves with white edging around the armholes. Unlike the other two (2) dresses, this one employs a Tudor bonnet headpiece in the color and kind of cloth on the main garment, as well as a red cord hanging down the hat. This, unlike the others, lacks a logo, yet the colors accurately depict the university's identity in a way (see figure 36 right). All gowns were designed by Dr. Elizabeth Obinnim.

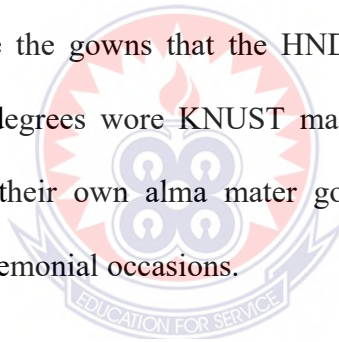


Figure 37

Ho Technical University Management Gowns. Images Displaying Various HTU Management Gowns from the First to the Current One. Designed in 2014/2015 (Left), 2016/2017 (Middle) and 2019/2020 (Right). All Designed by Dr Elizabeth Obinnim. Images Taken by the Researcher in December, 2021.

4.3.5 Design history of KsTU's academic gowns

The Kumasi Technical University Community's use of academic gowns can be traced back to the Polytechnic era, when the first batch of HND students who successfully finished the HND programme graduated in the late 1990s and early 2000s. Both the student grandaunds and the convocation members donned academic robes borrowed from the University of Science and Technology (UST), now Kwame Nkrumah University of Science and Technology (KNUST), during the congregational ceremonial events. The gowns were worn in accordance with the wearer's academic qualifications or administrative responsibilities as a member of the Polytechnic's senior management. There was only one set of gowns for KNUST undergraduates at the time, and these were the gowns that the HND grandaunds wore. Convocation members with master's degrees wore KNUST master's degree gowns, while those with PhDs wore either their own alma mater gowns or PhD gowns hired from KNUST for academic ceremonial occasions.



Borrowing academic gowns from Kwame Nkrumah University of Science and Technology continued for several years until the early 2000s, when Kumasi Polytechnic began to contemplate developing its own appropriate academic gowns. This choice was necessitated by the enormous cost of renting the gowns as the number of wearers increased, as well as the ongoing loss of the wearers' identity and image issues. KsTUP 9, a former vice rector, observed that "we wanted something that would identify us. That was why we decided to get our own gowns. You look at the amount of money that we were paying every year. We thought if we were able to make our own, it would save a lot. "Except for individuals who had their own PhD gowns, management gowns were rented from UST (KNUST). The borrowed gowns

for management had no inscriptions revealing the identity of a specific institution (see Figure 37). KsTUP 9 observed that "for the management gowns that were hired, there were no inscriptions on them, nor the logo of the institution from which the gowns were hired. So maybe that is why we did not think of that immediately. We were thinking of the students."



Figure 38

Kumasi Poly Senior Management Members in Rented Gowns. A Section of Management Members in Black Rented Gowns with Gold Satin Front Ornamentations. From Right to Left: The Rector, the Council Chairperson, Vice Rector and the Registrar. Image Taken from the 2010/11 KsTu Congregation Album by the Researcher in October, 2021.

4.3.5.1 Undergraduate gowns

The earliest academic gowns for Kumasi Technical University, then Kumasi Poly, were produced in the early 2000s and were around 200 in number. This small quantity

was produced due to a shortage of funding. The gowns were created by the fashion department at the time. KsTUP 9, a former management member, gave a quick explanation of what transpired with the dresses.

The fashion department was tasked with doing that. But the problem was more about funds. So initially, I think for the first time we sewed about 200 or so for the students. After tasking the department with the sewing of the gowns, what was done was for them to design a sample of the gowns and bring them to management for approval. We did not give too much of that detail to the department. They were the technical people, so we could not give too many instructions, just that a few things that should definitely come, like the logo, and so on. They looked around at all sorts of things, and definitely the foreign gowns influenced the designs a lot.

KsTUP12, a lecturer and gown designer, stated:

I saw it myself. It was like a choir robe. I think it was before Mrs. Tatra's time as HoD. It was not that long, but it was below the knee. Because they did not place the logo well, the production unit was tasked with working on it, and I was the one working on it. I think the administrative staff were using them.

The institution's plans to produce the gowns incrementally were hampered due to a shortage of funding and other important difficulties. During Prof. Nsowah Nuamah's tenure, the demand for the university to own its academic gowns was revived, and measures were put in place to do so. So, based on management clearance, the first gowns during Prof. Nsowah Nuamah's time were produced in 2012 by the fashion department led by Ibrahim Mohammed and Abdul-Razark Seini Yusif (Figure 38, left). The gowns were made of blue printex cotton fabric, with bell sleeves and a mortar board cap, and are worn open with woven kente cloth strips on either side of the opening. The hood is lined in yellow satin fabric, and the tassel is yellow as well.

The second dresses, originally for the institution's staff and were later on given to the students, were developed and made by the production unit of the fashion department in 2014 led by Ibrahim Mohammed (Figure 38 left). Due to the high cost of the woven kente strip, later gowns were made with printed kente strands. The designs of the general gowns are similar to the first, but the difference is in the design pattern of the front facing. The kente material pattern represents the institution's Ghanaian identity (Figure 38). In total, 600 gowns with kente strip facings and simple yellow linings have been created for students, including the first 50 for convocation now used by students. The Students' Representative Council (SRC) financed 100 gowns. They were created a few years ago, about 2019–2020 during the tenure of Nana Prof. Owusu Achiaw as VC (Figure 38, middle). Despite the fact that the dresses were provided on contract, the designs and supervision were carried out by people from KsTU's fashion department. The three gowns are fundamentally identical in style, although this latter gown's main apparel colour is darker than the former and has a plain yellow front facing as opposed to the former's kente facings. There are plans to make student gowns along faculty lines, so these gowns will only be used by one faculty. Other ones that are yet to be made may include trim colours such as red, blue, or green, depending on the faculty's chosen colour. KsTUP2 hinted that

Currently, there is a proposal to differentiate the gowns based on faculties. The colour of the robe will be blue-black, but the colour of the front face will be used to distinguish faculties. The colour of the robe for the B-Tech will be different from that of the HNDs. But the front-facing colours will be in line with their respective faculty colours.





Figure 39

Kumasi Technical University Undergraduate Gowns. Images Exhibiting the Various HND Gowns of KsTU. From the Extreme Right from the Top is the First Gown with Woven Kente Front Designed and Produced in 2012 by Ibrahim Mohammed and Abdul-Razark Seini Yusif (Top Left). Second Gown with Printed Kente Front, Designed in 2014 by Ibrahim Mohammed (Top Right). Current Gown with Yellow Fabric Front Facing Outsourced but Supervised by the Fashion Department, Designed in 2019/2020 (Top Middle). Images at the Bottom Display the University Colour Hood Linings. Images Taken by The Researcher in February, 2023.

4.3.5.2 The Master of Technology gown

Special gowns were made in 2020 for Master of Technology graduates during the tenure of Nana Prof. Owusu Achiaw. Abdul-Razark Seini Yusif, a Principal Technician officer at the Department of Fashion and Textiles, developed and created the garments. The gowns were made from a sea blue Polyester silk blend Fabric for the main garment, hood shell, and cap, as well as a yellow satin Fabric for the front face, hood lining, edging around the front of the hood, the section that hangs around

the wearer's neck, and the base of the cap. The logos of the graduate school and the institution are displayed on the front panels of the gown. They are four in number, long flowing robes that were initially worn by graduates of mechanical engineering (Figure 39).



Figure 40

Kumasi Technical University Master of Technology Gown (Front and Back). KsTU Master of Technology Gown Showing the Satin Front Face with Graduate School Logo and the Institution Logo Embossed at the Chest Level. Designed In 2020 by Abdul-Razark with the Help of the Faculty Design Team. Images Obtained from the Public Relation's Office and the Designer in February, 2023.

4.3.5.3 Management gowns

Management members used to wear pink gowns with gold linings and pleated sleeves with no bars. KsTUP12's claim about seeing two of the gowns displayed in management offices is stated below.

I saw a gown pink in colour. The whole apparel was pink, and the lining inside was a gold lining. It had a hood but no bars, and had pleated sleeves. I saw two of them hung there. It was around 2008/2009. I saw those gowns because I was interested in them. When I was doing my BSc project, that was what I designed (gown).

However, neither the artefact nor its image could be found due to the poor archiving system at the stores.

4.3.5.3.1 First management gowns

The first management gowns, consisting of four (4) sets developed and created during Prof. Nsowa Nuamah's reign, were made in 2014 by the fashion department's production unit at Kumasi Poly, championed by Abdul-Razark Seini Yusif. The main clothing and the hood shell were sewn with red wine printex cotton fabric. The hood is lined with yellow satin fabric, with the part that swings around the neck being blue and edged with yellow. Front velvet panels in navy blue cover the entire length of the gown and around the yoke, with the institution's crest on either side of the front opening. The bishop's sleeves with cuffs are seen on the gowns. The blue velvet bar trims on the sleeves, as well as the front panels, are trimmed with yellow piping. Using velvet stripes on the sleeves, the dresses are differentiated to signify the administrative authority of the wearers. The CC has four (4) bars since he is the

number one (1) principal officer. The VC, or then Rector, had three (3) bars, the Vice Rector had two (2), and the Registrar had one (1). Figure 40 (left and right).

4.3.5.3.2 The investiture gown

An investiture committee proposed a new academic ceremonial gown for the induction ceremony of the next VC, Prof. Nana Owusu Akyiaw, sometime around 2018/2019. Following the completion of the requisite design presentations and inputs, a new gown was created exclusively for the VC's induction ceremony in 2019 designed by Abdul-Razark Seini Yusif. This gown was made entirely of printex cotton fabric in red wine. Blue velvet panels and yellow trim adorn the front open ends. It features yellow piping between the blue velvet and the red fabric. It has no logo unlike the first gowns. Instead of a hood, it features a blue velvet sailor's collar at the back-top section of the gown and a V-neck at the front. The bell sleeve includes a slit on both sleeves that is finished with yellow satin to match. The headpiece is a Tudor bonnet style, constructed of a red wine velvet fabric trimmed with blue and with a yellow cord hanging down the brim to match. It includes three (3) velvet stripes on the sleeves, symbolising the Vice Chancellor's authority as institution's Chief Executive officer (Figure 40 middle).

4.3.5.3.3 Current management gowns

Recently, a new set of five gowns was designed and manufactured using the standard processes and procedures and with feedback from management. Because prior management robes were deemed excessively heavy, a lighter and more expensive polyester silk blend fabric in the colours of the institution was used for all four ceremonial outfits this time. The gowns were designed in November, 2020 by Abdul-

Razark Seini Yusif. Later in September, 2022 the Chancellor's ceremonial gown was also produced by the same designer for the Chancellor's investiture (Figure 41).



Figure 41

Kumasi Technical University Management Gowns. KsTU Management Gowns Displaying the Various Designs. First, Council Chairperson's Gown (Right) Designed in 2014, Investiture Gown (Middle) Designed in 2019, Pro Vice Chancellor's Gown (Left), Designed 2014 By Abdul-Razark Seini Yusif. Retrieved from, <https://kstu.edu.gh/media/articles/kumasi-technical-university-holds-15th-congregation>

Their styles are identical to those of the investiture gown (Figure 40 middle). The Registrar's gown, on the other hand, has a drape linked to it from the front to the back, rather than the flap collar that characterises the gowns of the rest of the management members (Figure 41, right).



Figure 42

Kumasi Technical University Current Management Ceremonial Gowns. KsTU Current Management Ceremonial Gowns of the Five Key Management Members. From the Left is the Pro VC, Followed by the Council Chair, then the Chancellor, the Vice President Dr Bawumia in Suit, The Vice Chancellor and then the Registrar at the Extreme Right. Designed in 2020 and 2022 by Abdul-Razark Seini Yusif and the Design Team at KsTU. Courtesy by The Public Relations Office in February, 2023.

Due to the scarcity of undergraduate gowns and the absence of KsTU's own convocation gowns, academic gowns are still borrowed from KNUST to supplement the few ones in the system for academic ceremonial events (Figures 42 & 43). While Figure 42 portrays a mixture of undergraduate gowns consisting of KsTU gowns and hired ones, convocation gowns for Ph.D. and master's degree holders are also hired from the same institution for individuals who do not have their own (Figure 43). Those who own their gowns, on the other hand, do wear them.



Figure 43

Kumasi Technical University and Non- Kumasi Technical University Gowns Combined. Image Displaying a Mixture of KsTU Gowns with Kente Front Facings and Hired Gowns with Different Coloured Satin Front Facings from KNUST Used During the 13th Congregation Ceremony of KsTU. Retrieved from <https://archive.kstu.edu.gh/media/gallery/13th-congregation>

Normally, before the KsTU gowns were designed, management indicated the need and task the fashion department design team to put their request into a design for management input and approval. There are forth and back design presentations to management throughout the design and production of the gowns. These include the appropriateness of colour code, the style and form of the gown, the fabric and the cost involved.



Figure 44

Kumasi Technical University Convocation Members in Rented Gowns. Image Exhibits KsTU Convocation Members in Gowns Hired from KNUST. Foreground, Masters Degree Holders in Blue, and Background, Doctorate Degree Holders in Wine During Congregation Procession. Image Taken by the Researcher in March, 2023.

KsTUP12 on the design processes of the gown says that:

Before the work, there is paperwork. We go and present to them that these are the designs. We explain each and every technical detail to them (management) for them to understand and they also give their input. At the end of the day, we agree and we move on.

4.3.6 Design history of Sunyani Technical University's academic gowns

When the first HND graduates were successfully gathered in a graduation ceremony in 2000, Sunyani Technical University students began utilizing academic robes. Due to the requirement for their use, the robes were rented from KNUST. As STUP1 puts it, "You cannot graduate without academic gowns. The spirit of the ceremony will not

be felt without the academic gowns. That was actually the motivation, the spirit behind the hiring of the gowns". Since then, gowns have been borrowed from KNUST for management using Ph.D. gowns and for convocation participants based on academic success. Those who had their own academic gowns wore them as well. The hiring of gowns continued until 2011, when the institution, the then Sunyani Polytechnic, realised that there was a need to get their own academic dresses for academic ceremonies due to the high cost of hiring gowns and also the issue of identity crisis that wearers face when in other institutions' gowns. STUP1 noted that:

We realised we were paying a lot of money. And more so, the symbols and everything on the gowns that we were using at the time always referred to KNUST and did not reflect ours. That's why we decided that we should get our own gowns.

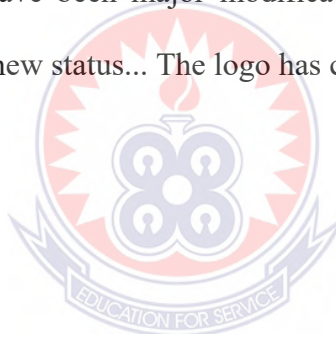
Apart from the identity crisis and the financial repercussions of hiring dresses, the question of the brand image of emerging academic institutions was also raised during the interview. STUP1 continues: "As an upcoming institution, where you want to advertise, when you want to establish yourself, you need the academic gowns, and that's what is happening in the country."

4.3.6.1 Management gowns

4.3.6.1.1 First management gowns

The first academic gowns for Sunyani Technical University (then Sunyani Polytechnic) were produced around 2011 by a gown contractor from outside the institution during the rectorship of Prof. Thomas Kwadwo Djan-Fordjour, and these were the first management gowns ever produced. STUP1 continues, "We did not have a fashion department at the time. We contracted people from outside Accra to design

the first four gowns for management. That is the Council Chairperson, the Rector, the Vice Rector, and the Registrar (Polytechnic Secretary). " The first management gowns were red and yellow in colour. The main colour was red, with yellow trimmings, edgings, and linings. They were full-length dresses with hoods and black velvet bonnet headwear with yellow cord tassels around the cap. They were open gowns with yellow front facings at the closing ends of the gowns, with "Nyasapow" (Wisdom Knot) symbols embellishing the gowns' front facings. However, the other design has not. The gowns' sleeves were drop-sleeved with yellow lining turned up at the base of the sleeve at the top with red cord and buttons as closures, so that when worn, the sleeves of the gowns were visible (Figure 44). STUP1 indicated that "since the first designs, there have been major modifications in the gown designs... as a result of the institution's new status... The logo has changed and colour has changed."



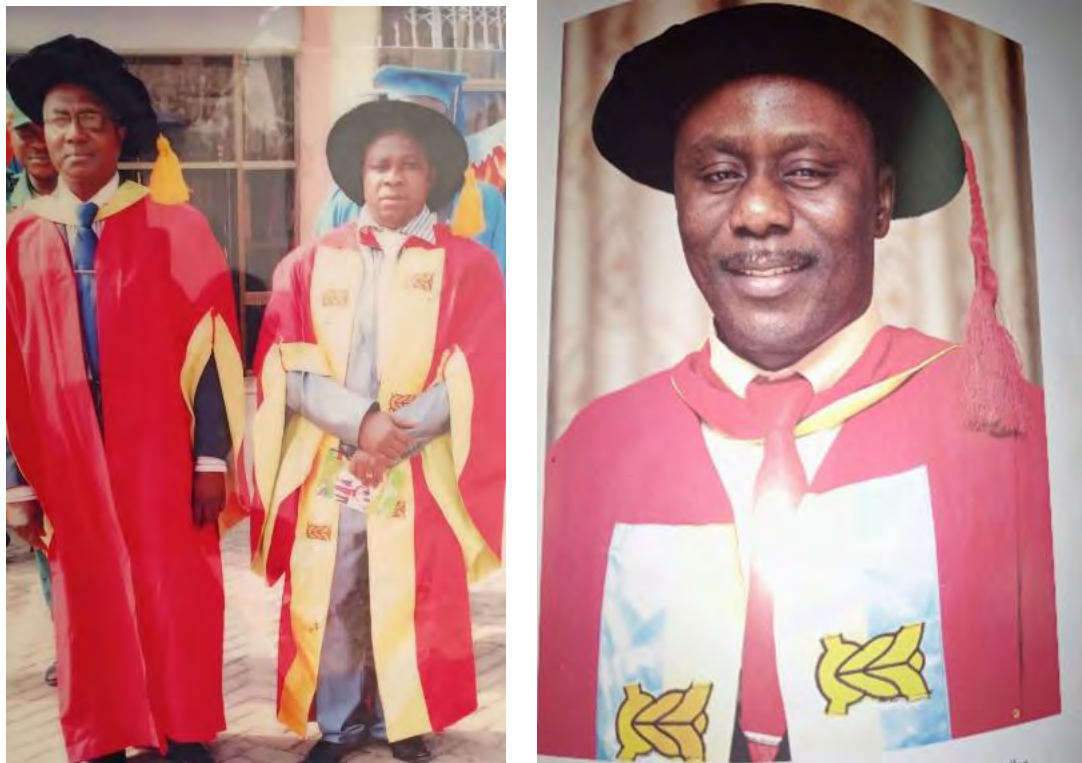


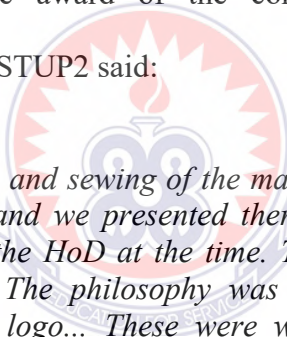
Figure 45

Sunyani Polytechnic First Management Gowns. Images Showing the Former Rector and the Vice Rector in their Gowns (Left) and the Current VC Who was Also the Vice Rector and the Interim VC between 2013 and 2016 (Right). Image on the Left was Obtained from Mr Owusu, the Former Vice Rector, and on the Right, from the University's 13th Congregation Brochure Both in October, 2021.

4.3.6.1.2 The current STU gowns

When Sunyani Technical University, then Sunyani Polytechnic, was upgraded to a technical university in 2016, a new set of management gowns was required to reflect the institution's new status. Prof. Kwadwo Adinkra-Appiah was the Vice Chancellor then. According to STUP2, prior to the changeover to technical university status, some students complained about having to wear gowns that did not bear their identification. Following that, the planning section prepared a proposal for the institution's own gown around 2014/2015. As a result, a committee was formed to sample gown designers in Kumasi for the assignment. This was completed, and a

report was delivered to management. Following that, the Visual and Industrial Arts departments were asked to submit ideas based on the institution's colors and philosophy, as well as the motto and others, for consideration. The three-man team, comprising Mr. Appau, Dr. Atiase (HoD), and Jocelyn, put some designs together and presented them to management for review and input. After bringing in a sample, management agreed that four (4) gowns would be produced for them. The fashion and textiles department created these gowns, but Pax Garment in Sunyani manufactured them. The initial plan was for the fashion department to design and produce the academic gowns, but a delay in the installation of the machines and equipment, combined with the urgent need to use the ceremonial gowns for the upcoming ceremony, necessitated the award of the contract to Pax Garments for the management gown sewing. STUP2 said:



In the design and sewing of the management gowns, we did the designs and we presented them to management in the presence of the HoD at the time. The team was headed by Mr. Appau. The philosophy was to use the institution's colours and logo... These were what we considered. We wanted to design something Ghanaian so people could appreciate it. That's why we incorporated the kente print at the front and with the logo embossed on top of the strips. The management gown was more detailed.

After the designs for the three management gowns were completed and the appropriate design comments were received from management, Pax Garments was contacted to sew the gowns. Pax also proposed some design changes, such as embossing logos on the façade as well as the upper back of the gowns. Again, the fabric prescribed by the Visual and Industrial Arts (VIA) team, gabardine, was changed to Travera cloth due to its availability in the institution's colors, as opposed to the former. Pax presented the samples of the fabrics after inspecting the fabrics he

had previously used for the gowns. In addition to offering the Travera fabric for the gowns, Pax advised that the colour gold, though not the official colour of the university, be added to improve the aesthetic appeal of the robes for management and PhD convocation participants. STUP3, speaking on the issue, said:

...We invited Pax garments... They looked at the design, they also made suggestions, and then we brought in the VIA team and, together with management, we looked at it and we settled on the final design. " Pax Garment suggested changes with respect to the position of the logo on the Principal Officers' gowns... gold colour would look nice on the green fabric... Pax suggested the Travera fabric that has been used to produce the gowns now.

4.3.6.1.2.1 The current management gowns

Green is the primary colour of the management gowns' clothing. The dresses have a woven kente cloth design strip on both sides of the opening ends. The red strips above the kente strips have a red background on which the logos are fixed, but the red strips below do not (Figure 45).

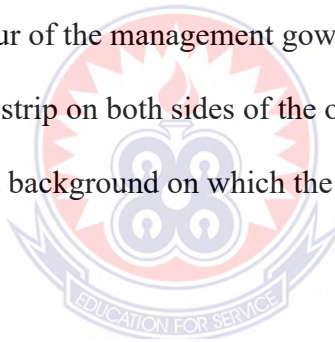




Figure 46

Sunyani Technical University Current Management Gowns. Images Showing Designs of the Management Gowns. From The Left are; 1st- Council Chair, 3rd –Vice Chancellor, 4th- Registrar and 5th -Pro-Vice Chancellor. The Two Images at The Bottom Are the Back and Side Views of the Council Chair's Gown and on the Extreme Right is the Front View of VC's Gown. Designed by the Visual and Industrial Arts Department in 2015. Images Taken by the Researcher in October, 2021.

At the ends of the red strips are gold motifs that link the front yoke of the gown. Except for the gold colour, the kente patterns are in the university's colours. The top of the yoke at the back of the gown is a pentagonal design with woven golden threads

as the trimming. These attachments are attached to the gown at the back of the neck in the same color as the main garment. The gowns have inverted t-sleeves, with strips of gold bars utilized as one of the aspects that represent the wearer's authority, and three (3) adinkra symbols embroidered in gold on the bottom sleeve. On both sides of the sleeves, the armholes that contain the t-shape are trimmed with gold. The back attachment houses the institution's logo and the motto "Nea onnim no sua ohunu." Three (3) lengthy knotted designs with frayed ends may be found at the bottom of the attachment. The headpiece is a Tudor bonnet in the same colour as the gown, with a gold cord hanging from the cap. Aside from the bars and sleeves, additional notable variations can be found in the kente (Figure 45).

4.3.6.1.3 The PhD convocation gown

The Ph.D. robes (Figure 46), are mostly red with gold and green embellishments. It is a full-length gown made of Travera cloth, similar to the management gowns, with strips of green fabric with the institution's insignia imprinted at the breast level and strips of green fixed on the opening ends of the gown. Another emblem can be found at the back of the gowns, on the yoke. They have drop sleeves with three (3) strips of gold bars on the sleeves. The sleeves are lined with green satin material, and at the upper section of the base of the sleeves are gold strips that cover the upper half of the sleeves with red cords and buttons as fasteners. The headwear matches the main attire and is designed similarly to the senior management robes, with long gold cords hanging from the brims of the caps.



Figure 47

Sunyani Technical University Ph.D. Gown. Images Showing the Front, The Back and The Side Views of the Convocation Gowns for Ph.D. Holders. Designed by Pax Garments in 2014/2015. Images Taken by The Researcher in October, 2021.

The gowns also have long hoods that are similar to the Cambridge pattern. The hoods' outer shells are red, with green and yellow linings and edgings. Apart from the gold and yellow colors, which are most likely utilised for contrast, the remainder of the colours are STU's designated colours (See Figure 46).

4.3.6.1.4 Undergraduate gowns

The undergraduate gowns are mostly black, with accents of white and green satin textiles. The front facing of the undergraduate gowns, like the Ph.D. gowns, is made up of long green and short white satin strips. The white satin strips are the parts that display the institution's logos. The sleeves have a bell shape to them. The caps are the mortar board model, and the fabric and tassel colors match the main outfit, which is black. The hood appears to be in the Oxford pattern with a white lining.

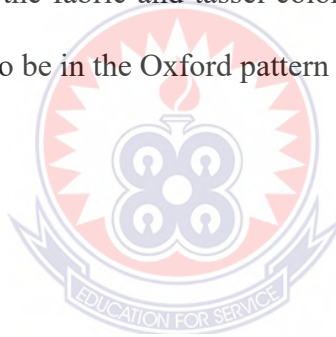




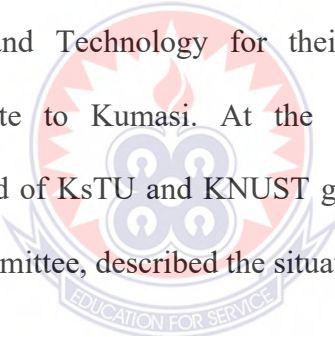
Figure 48

Sunyani Technical University Undergraduate Gown. Images Displaying the Front and Back of the STU Bachelor of Technology Gown: Designed by Pax Garments in 2014/2015. Images Taken by the Researcher in October, 2021.

Unlike the fabrics used for the rest of the hood, the section that goes around the neck is black with a green border. All of the colours selected are representative of the institution's official colours (Figure 47). Aside from the gowns already shown, the institution intends to design and manufacture academic gowns for several faculties. The colours of the hood lining will indicate this. There are also plans to develop master's degree gowns for the convocation members. According to STUP3, "We do not have master's degree gowns because we do not have a master's programme running. We have plans to develop faculty gowns whose differentiation will be in the hood lining colours".

4.3.7 Design history of TaTU's gowns

Tamale Technical University (Tamale Polytechnic), like the other former polytechnics in Ghana that are now technical universities, began using academic gowns during the first graduation ceremony of their first batch of HND graduates in the late 1990s. These gowns were initially rented from traditional universities, notably KNUST, for their graduands and convocation attendees. Over time, the university continued to hire from KNUST, Kumasi Technical University, and the University of Development Studies (UDS) for their academic events. Unfortunately, Tamale Technical University's congregational ceremony date overlapped with that of UDS', forcing TaTU to rush down to Kumasi Technical University and Kwame Nkrumah University of Science and Technology for their gowns, among the problems encountered on the route to Kumasi. At the time, academic gowns for the congregation were a blend of KsTU and KNUST gowns. TaTUP1, a member of the academic ceremonies committee, described the situation as follows:



We have a sister university in town, which is UDS. We normally rent our gowns from there. There was a day when our congregation's calendar clashed with theirs. So we had to travel to KsTU. They could not get us the required number. We moved to KNUST and took theirs and combined in that particular year. And that was the particular year they blocked the two bridges (Yapei and Buipei). We had to beg and pass through Yapei to Damango, then to Suala, and finally to Kumasi. We suffered a lot.

The main reasons for Tamale Poly's having its own academic gowns were: to lower the institution's costs due to the high cost of hiring from other universities; to eliminate the identity crises that characterised renting academic gowns; and to exhibit

the institution's and the wearer's Northern identity. It was also intended to rent them to other institutions. According to TaTUP4, the former rector,

The idea was that we reduce the cost to the institution, have our own gowns, which is typical of Northern identity, and also rent them to others. The main idea was the identity of the institution and uniqueness being a Northern institution-Tamale specifically.

4.3.7.1 The undergraduate gowns

Tamale Technical University's journey to having its own academic gowns began in 2007/2008, under the late Prof. Peligah's tenure as Rector. He proposed that TaTU begin acquiring its own gowns for formal events. The Rector then entrusted the Tamale Technical University's then-Polytechnic fashion department with doing so. So the department created the gowns, and the design was finalised and then made by the department with the help of the committee headed by Prof. Peligah. The committee was comprised of the Finance Director, the Procurement Officer, and the Rector. Before it was produced, the academic board authorised the design. There was a plan to create the gown in stages, so initially sixty (60) of them were made due to financial limitations at the time. This was done with the intention of eventually adding more. On the origins of the robes, the head of procurement at TaTU (TaTUP2) had this to say:

Then, around 2007/2008, the then Rector, Dr Peligah, came up with an idea that we should start to get our own academic gowns... he tasked the fashion department to do that. So the department came up with a design, and I think the design was taking to the academic board for consideration. Then they started to do it. We told them for the start they should produce 60, and as the years go on, we will be producing more gradually.

The gown designs were inspired by both Northern culture and the KNUST academic robes with kente facings. TaTUP5, one of the gowns' designers and creators, stated,

At that time, we were looking at how we were going to use the Northern kente for the frontage of the gowns. Because we wanted to portray the Northern tradition because the institution is in the North, we sat down and then we looked at the KNUST gown with kente... And so, based on that, we wanted to use kente from the North to portray the Northern culture.

The designer of the gown, the then-rector of Tamale Polytechnic, explained what prompted him to come up with such a concept after a long period of hiring from other traditional universities. TaTUP4 stated:

So, I decided that for an institution to have its own identity, we must now design our academic gowns so that we could curb the cost of renting but also give a unique identity to the institution. In those days, we had the three polytechnic institutions in the Northern Region—Tamale, Bolgatanga, and Wa. So I decided to use the cloth you're referring to as kente. We call it "Tani," so the idea was that we use what is common for the common people. At the basic level, what is common is what we used.

The designs for the frontal facings of the HND gowns were conceptually inspired by the fugu strips with 'black and white' or 'white and indigo' called 'Bangroga.' They are usually the most prevalent ones that can be seen. As a result, the undergraduate gown concept was based on the 'bangroga' design, which has a basic weave. TaTUP4 continued, "The kind of weave also tells the rank of the person in society. So those were the ideas that I came up with. " As a result, the indigo and white kente pattern (tani) used at the front opening of the first Tamale Poly HND dresses was inspired by that idea.

The main garment, a blue-black foreign fabric, was chosen to complement the frontal pattern. The same could be said for the hat and the outside of the hood. According to TaTUP5,

For us to get the colours to come out, we have to get a background that is a little darker. That will not be part of those that we are using for the frontage so that the frontage will come out and people will see it clearly. That's why we chose the blue-black colour.





Figure 49

Tamale Technical University First Undergraduate Gown. Images Displaying the Front Face, Side and the Back of the HND Gowns. Designed in 2007/2008 by Prof, Peligah and the Fashion Department of TaTU. Images Taken by the Researcher in October, 2021.

The gown's sleeves are bell-shaped, and the design was inspired by a calabash-shaped pot in the Northern Region (Tamale). TaTUP5 elaborated:

The sleeve is a bell shape, but the idea came from the pot. You see, in the North here, we have the pot and there is an area in Tamale called Kukuwo whereby they produce those pots. So the inspiration came from the pot — the one that looks like a calabash inspired the design of the sleeve. I developed the idea with Prof. Peligah.

The colours of the various faculties were regarded as the principal object of identification for the front facing of the students' gowns (Figure 48), while the entire outfit of the gown will be blue-black for the under graduate gowns. According to TaTUP4, the colours for the various faculties were considered. He said:

So we were looking at colours for Engineering, for Business, and then for the Creative Arts, so that we would get the colour for each faculty. The idea was that the undergraduate gown would be mostly blue-black, but the distinction would be based on the colour of the front face, which would be faculty-specific. The unfortunate thing is that we could not finish the project. The ideas were there once you started the project and left...If the next person comes and he is not interested in it, they will not push it.

4.3.7.2 The rectors' gown

The Rectors' gown was made entirely of indigenous cloth, primarily tie and dye, with a strand of 'tani' creating the front face and going around the neck.



Figure 50

Tamale Technical University Rector's Gown. Images Showing the Sleeve and Front Face of the Rector's Gown. Designed by Prof. Peligah and the Fashion Department of TaTU in 2007/2008. Images Obtained from the Vice Chancellor's Secretary in May, 2022.

The 'tani' was also used to make the hat, and the inspiration came from the 'batakari' concept, which included both northern traditional styles and foreign garments (see

figure 49). The intention to produce the gowns progressively was unable to materialise after the initial batch of over sixty (60) dresses were produced. This was owing to financial constraints and other pressing priorities. TaTUP2 explained that... "along the line, the following year, we couldn't continue with the production because of finances, priority issues, and all those things, so we could not."

4.3.7.3 The current TaTU gowns

Due to the inadequacy of the gowns, students and convocation members continued to use borrowed gowns until Tamale Poly was designated as a technical university in 2018. After achieving such status, the desire for TaTU to have its own dresses was reignited. The decision for tailored dresses for the management and convocation members was also reached. The students were also included. Following that, a three-person committee was constituted, led by the Procurement Officer (Head of the Procurement Unit), of which the then-PRO who was assigned the assignment was a member, along with another person. This was under the tenure of Prof. Abdulai Salifu Asuro, the previous Vice Chancellor. The contract was advertised, and Mr. Boakye, a gown and choir robe maker in Kumasi near Aheneboboano, won it. His over twenty years' skills and experience in sewing academic gowns influenced the committee in developing the present TaTU academic gown designs. The committee regularly sought advice and permission from the registrar and vice chancellor until the provider completed the designs, produced them, and delivered them. The chairman of the committee, TaTUP2, outlined the procedures that the committee followed until the gowns were given to TaTU.

We did the advert, we had one Boakye in Kumasi... So he won the contract and then he came, because he has been doing some for KNUST, UCC, and others. Oh, he has a very big shop. As a result, when he arrived, he was able to guide us with the design. At least we gave him our colours... we used our institution's colours. For anything that we do, we consult the Registrar and Vice Chancellor. We sent it to him and he said okay. Before, the supplier did the design, produced it, and delivered it. That is what we are using currently.

4.3.7.3.1 Current managements gowns

The main outfit for the management gowns is largely green, with black velvet facings and braided cords used as edgings and pipping in the colors earmarked to denote the wearers' status differences. The logos of the institutions are sewn onto the facings at chest level. The black velvet front panel strips on the gowns finish at the upper back (Figure 50). The garments had bishop's sleeves with cuffs and three bands piped with braided cords in the colors assigned to the offices. The headwear is of the black velvet Tudor bonnet variety, with cords manufactured in the appropriate colours for the offices, and the tassels have yellow ends dropping down the caps in all situations. The hoods have the same colour and fabric as the main garments, with mostly green and yellow satin chevron linings, but with mauve for the Vice Chancellor and Pro-Vice Chancellor and red for the Registrar (Figure 50). The gown designs for the leadership are generally similar, with the exception of a few minor colours that serve as a point of differentiation.

4.3.7.3.2 Gowns for convocation members who have PhD or professors'

The senior convocation members' gowns are primarily green for the apparel and red for the bars, front panels, headwear, and a portion of the hood lining. On the chest, the logos are housed in red velvet panels. The sleeve is a bell shape, different from that of

senior management gowns, with three velvet bars and no piping. The hood lining is a chevron of red satin at the top and bottom, with green in the center. The portion of the hood visible at the front is also red. The headwear, like the senior management robes, is of the Tudor bonnet variety, although it is red with a green cord running down the cap (Figure 51).

4.3.7.3.3 Masters' convocation gowns

Figure 52 depicts the masters' convocation robe. They are generally blue in colour, with green front facings displaying the logos on either side of the opening. It includes a clasp to keep the pleats on the sleeves in place. The headwear is the same color and fabric as the gown, and it has a green tassel. The outer section of the hood is equally blue, but it has a yellow lining.

4.3.7.3.4 The undergraduate gowns

Figure 53 depicts the undergraduate gown, which is primarily green with a yellow front facing and the university's insignia fixed on one side of the facing. It has sleeves similar to the masters' and a mortar board-style headdress with a matching yellow tassel. The hood has a yellow lining, and a portion of the hood fabric is turned over and extended to the front neck of the hood (i.e., CNNA type). To match, the hood features a yellow border. Except for the masters' gown, all of the new gowns represent the colours of TaTU to a great extent. The conceptual foundations and philosophical assumptions of the designs are extremely limited. The gown designs have no documentation. TaTU now borrows gowns from UDS to supplement what they have, and plans have been put in place to develop and construct faculty gowns with Northern symbolic iconographies to demonstrate the cultural touch of the North.







Figure 51

Tamale Technical University Senior Management Gowns. Gowns Displaying the Front Faces Signifying the Various Management Offices. Top from the Left; Council Chairperson (1st), Vice Chancellor (2nd), Pro-Vice Chancellor (3rd) and the Registrar (4th) Respectively. The Images that Follow Also Display the Rear Details of the Gowns Respectively. Designed in 2018 by Mr Boakye. Images Taken by the Researcher in October, 2021.



Figure 52

Tamale Technical University Convocation Gown (Ph.D.). Images exhibiting the front and back views of the Tamale Technical University Ph.D. gowns for convocation members having Ph.D. qualifications. Designed in 2018 by Mr Boakye. Images taken by the Resesarher in October, 2021.



Figure 53

Tamale Technical University Convocation Gowns. Images Showing the Various Views of TaTU's Convocation Gowns for Master's Degree Holders. Designed in 2018 by Mr Boakye. Images Taken by the Researcher in October, 2021.



Figure 54

Tamale Technical University Current Undergraduate Gown. Images Displaying the Front and Back of Current TaTU HND Gown. Designed in 2018 by Mr Boakye. Images Taken by the Researcher in October, 2021.

4.3.8 Design history of Takoradi Technical University gowns

Takoradi Technical University, then Takoradi Polytechnic (T-Poly), began wearing academic ceremonial gowns when they first graduated their HND graduands in 1997. The academic gowns worn by both junior members and the convocation were rented from the University of Cape Coast (UCC), and in most cases, the university had patronised UCC gowns for their academic ceremonies before they had had enough and discontinued hiring. This is likely owing to the fact that the University of Cape Coast provided the majority of the leadership for Takoradi Technical University, the then Takoradi Polytechnic.

Prior to 2010, principals were in charge of the institution. At the time of matriculation, neither students nor convocation members wore gowns. Takoradi

Technical University started having rectors around 2010–2011, and during that time, management members, including those without a PhD, began to wear academic gowns due to the role they played during the ceremonial event. TTUP4 recounted that "At that time, we had the council chair, the rector, the vice rector, the registrar, and the director of finance. I think the deans also started wearing the gowns just to bring out the differences. Theirs were the "hired gowns". During the polytechnic era, the Council Chairs and Rectors were Ph.D. holders who donned their own gowns for ceremonial occasions (Figure 54 left). Before the academic gowns were constructed, a gown for the Registrar had been designed and worn by the then registrar during the Polytechnic's 10th congregation. The gown was predominantly red, with yellow and blue stripes on the sleeves and lower half, which matched the colours of the polytechnic. A variety of adinkra designs on the front face are thought to signify the institution's Ghanaian identity. It has a blue and red mortarboard hat with a matching yellow tassel (Figure 54 right). The designer of this gown could not be identified, and the registrar at the time could not be located to discuss the design's philosophy.



Figure 55

Takoradi Technical University Former Management in Gowns. Images Depict Former Senior Management Members of Takoradi Polytechnic in Academic Gowns. From Left, Council Chairperson and Rector (First & Second) Cladded in Their Own Ph.D. Gowns. The Registrar in Multicoloured Academic Robe in The Institution's Designated Colours (Extreme Right). Images Obtained in November, 2021 from The TTU's 10th Congregation Album

However, since the colours are aligned with the University it can therefore be concluded that the gown design sought to communicate the identity of the institution. The adinkra symbols as well gives the Ghana cultural dimension of the gown. A participant reported that during Rev. Prof. Daniel Adjepong Nyarko's tenure as Rector, the University felt compelled to begin designing its own gowns around 2010–2011. The gown maker was called in at the Rectors' Office, where the designs were planned and finalised in the presence of two key individuals, including the Procurement Officer, who had been invited by the Rector. Except for the Ph.D. and ceremonial robes, the colours and logos of the institutions were used on the various

gowns. The gown maker had an influence on the designs in terms of colour scheme and harmonization, as well as the overall arrangement, through an approval process. The supplier of the Takoradi Technical University gowns (TTUP12), when contacted about how the designs were started, said that:

... They showed me their colours, and I advised them on how best to combine the colours to bring out the needed aesthetic effect. Normally, they choose what they want, and I go to do it for them. For the ceremonial dress, they chose the kente front, and I went and did it for them. For the various gown designs, there are models of the designs on the internet to pick from.

4.3.8.1 The undergraduate gowns





Figure 56

Takoradi Technical University Gowns Below Ph.D. Images Showing the Front and Back Views of the Takoradi Technical University Gowns. From the Top, B-Tech. (Left) Designed in 2011. Convocation Members' Gown (Middle) Designed in 2010 and HND Gown (Right), Designed in 2011 by Mr Ayim. Back Views of the Gowns Arranged in the Same Order. Images Taken by the Researcher in November, 2021.

4.3.8.1.1 The HND gowns

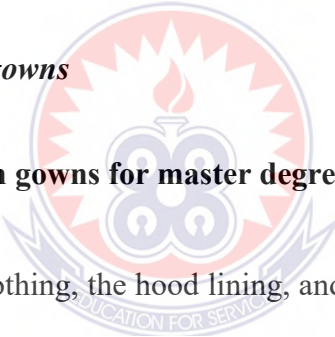
The gown is primarily blue-black in colour, with yellow strips running over the upper portion of the front face and embossed logos. It has bell sleeves with a blue cord and button on the upper half of the base. The hat is a mortar board with a tassel in the same colour as the rest of the outfit. The yellow lining contrasts with the black hood shell. It is a full-length gown that is worn open (Figure 55, right). The gown was designed in 2011 by Mr Ayim, a gown contractor in Accra during the era of Rev, Prof. Daniel Adjepong Nyarkoh as the rector. Following that, in 2012, the quantity was doubled, and it was later added in 2018.

4.3.8.1.2 The Bachelor of Technology gown

The only difference between this gown and the HND gowns is the yellow tassel on the B-Tech gown and the black tassel on the HND gown. For the purpose of distinction, the front-facing stripes on B-Tech gowns are longer than on HND gowns. Both have their logos attached at breast level, though the HNDs are on the yellow strips and the B-Tech's are embossed above them. Both feature a yellow line in their hoods (Figure 55, left). The gown was designed in 2011 by Mr Ayim, a gown contractor in Accra who was first used as convocation members' gowns in the early years of its design. The figures were raised in 2012, and more were added in 2018. Currently, the HND and B. Tech. gowns are 3,315.

4.3.8.2 The convocation gowns

4.3.8.2.1 The convocation gowns for master degree holders

The logo of the University of Education, Winneba, is a circular emblem. It features a central sunburst with a flame-like top, set against a red background. Below the sunburst are two stylized figures or symbols. The entire emblem is encircled by a white border containing the text 'UNIVERSITY OF EDUCATION' at the top and 'EDUCATION FOR SERVICE' at the bottom.

The colour of the main clothing, the hood lining, and the front facings are the primary differences between undergraduate gowns and convocation gowns for staff members who hold master's degrees. While undergraduate gowns are blue-black with yellow front facings and hood linings, convocation gowns are black with a white front face that receives the logos, and white hood linings to match. They all have mortar board caps and similar sleeves (Figure 55, middle). The gown was created and distributed in 2010, and it was updated in 2018. The current total number of gowns stands at 175.

4.3.8.2.2 The convocation gowns for Ph.D. holders



Figure 57

Takoradi Technical University Ph.D. Convocation Gown. Images Depicting Some Convocation Members in Takoradi Technical University Convocation Gowns for Ph. D. Holders. Designed in 2010 by Mr Ayim, a Gown Designer at Accra. Retrieved from <https://www.ttu.edu.gh.org/graduation> – Google Houtck

The Ph.D. convocation gowns' main garment, linings, and cord are all made of wine. As headwear, it has a black velvet Tudor bonnet as well as black velvet front panels with emblems at the breast level. Each sleeve has three black velvet bars, with the upper part of the sleeve base twisted up and restrained by wine strings and buttons (Figure 56). In comparison to the undergraduate and masters' convocation robes, the Ph.D. gowns are precisely designed. The primary distinctions are the type of sleeve, cap, fabric for the front facing, and hood design lining. The gowns were originally

designed and given in 2010, and the number was doubled in 2011, and more added in 2018. There are 20 of such gowns now.

4.3.8.3 The ceremonial gowns

Academic Deans, directors, and senior management all wear identical ceremonial attire. Their primary gown colors are wine for the main apparel and black for the headdresses, like that of the PhDs. While the PhDs have black velvet front panels with logos and a wine hood lining (a CNNA type of hood), the ceremonial gowns have a woven kente pattern on the front without logos and a yellow hood lining. Deans and Directors wear wine tassels just like the Ph.D.'s, whereas senior management (i.e., Council Chairperson, Vice Chancellor, and Pro-Vice Chancellor) wear yellow string tassels. Minor changes in design can also be noticed in the hood designs. The Ph.D., deans, and registrar use the CNNA hood. The sleeves, on the other hand, are shaped similarly. The registrar's gown is wine as well, except it has a blue satin hood lining. The last sleeve is identical to the others, but it has a blue satin material inside that is linked with a yellow cord and button. In contrast to the other senior management ceremonial robes, which have black velvet Tudor bonnets, the registrar's headwear has a wine-coloured bonnet with a matching blue tassel (Figure 57). The gowns were designed by Mr Ayim, gown contractor in Accra in 2010 during the tenure of Rev. Prof. Daniel Adjepong Nyarkoh as the rector.



Figure 58

Takoradi Technical University Ceremonial Gowns for the Deans and Directors. Images Showing the Ceremonial Gowns for The Deans and Directors at Takoradi Technical University with Ph.D. Degree. Designed in 2010 By Mr Ayim, a Gown Designer. Images Taken by the Researcher in November, 2021.

When the university was elevated to the status of a Technical University in 2016, the number of academic gowns increased. For now, there are 10 ceremonial gowns, 4 for senior management and 6 for the deans. The old crests on the gowns bearing Takoradi Polytechnic were removed and replaced with the TTU crest in order for the old robes

to represent the institution's new name. On the issue of the TTU gowns, a manager at the store TTUP7 said that:

We had some, and when we turned into a TU too, we designed another one. We designed a new academic gown for the TU, for the different levels – HND, B-Tech., Masters' and Ph.D. convocation gowns. We have two types of these ceremonial ones.

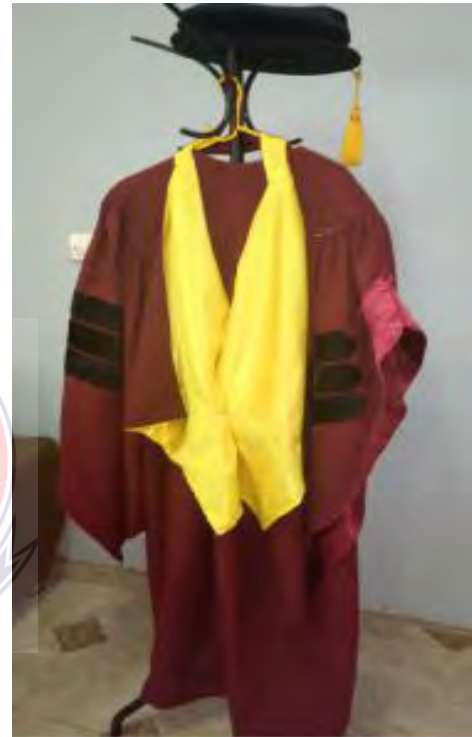




Figure 59

Takoradi Technical University Senior Management Ceremonial Gowns. The Front View of the Management Gowns Displaying the Kente Front Facings is Shown at the Top Right, followed by the Back Views, Displaying the Hood Lining Colours, then the Registrar's Gown Front and Back, Designed by Mr Ayim in 2010. Image Taken by the Researcher in November, 2021.

According to TTUP6, "your status in the system enables you to wear the ceremonial one". The ceremonial gowns are of two kinds: one for the academic deans and directors who have Ph.D. degrees (Figure 57), and the other for the senior management and the Council Chairman (Figure 58). The university is in the process of acquiring different gowns for the master degree grauwands, TTUP6 hinted.

As of now, Takoradi Technical University rent out gowns to other tertiary and non-tertiary institutions with all their identification items, and this to a large extent covers the real concept of such institutions' mandate. TTUP6 said that:

There are some institutions that borrow gowns from us. So the real concept of the mandate of the institution in terms of the design is missing for now. When OIC are graduating, they come and borrow TTU gowns with all the identity items in place.

Due to the increasing population of TTU gown wearers, the institution rent gowns from sister institutions during congregation ceremonies. A respondent said that "we still hire gowns to beef up what we have".

So far, the findings of the design history from the seven study areas have revealed that all of the study areas, and thus the rest of the technical universities in Ghana, hired academic gowns from traditional universities for their congregations. This finding is consistent with the University of Ghana (UG), then the University College of Ghana, which borrowed gowns from the University of London in the 1950s when it lacked its own gowns (University of Ghana Committee report, 2014), KNUST, which borrowed gowns from the UG for academic ceremonies in its early years (Osei-Poku, 1999), and the University of Exeter, which borrowed gowns from Ede and Ravenscroft for its graduates in 1955 (Quy, 2020, p. 39).

The study also found that it was critical to use academic gowns for academic ceremonies at the time because their use had become an international norm and that the attire had the ability to instill a sense of accomplishment and act as a form of advertisement for the institution and the wearers. This agrees with the academic gown records of the National University of Ireland (NUI, 2006), which indicate that the use of the gown adds colour, spectacle, and a sense of occasion to the ceremony, providing a sense of symbolism to the universities' continuing role as centres of learning advancement. Therefore, the use of academic gowns (academic pomposity) by technical universities in their first congregation ceremonies and even subsequent ones was essentially a perpetuation of local and international academic norms during academic ceremonies such as congregation, matriculation, and investiture. Universities such as Oxford (North, 2014), Cambridge (Grooves, 2014), New Zealand (Cox, 2001), Warwick (Jackson, 2008), and others, as well as local institutions such as UG, KNUST, UCC (Howard et al., 2015/2019), UEW (Essel & Kemevor, 2016; UEW Handbook on Academic Ceremonies, 2012), and others, do this. These findings support Howard et al.'s (2015) conclusion that academic gown wearers and would-be-wearers prefer to continue wearing academic gowns due to the prestigious nature of the attire.

The study also showed that after borrowing the gowns for a while, the technical universities decided to get their own appropriate gowns due to the lack of identity that characterised the borrowing. These findings support Howard et al.'s (2015) and 2019 findings about the importance of academic institutions avoiding identity crises. The high cost of hiring gowns and also as a source of internally generated funds for the institutions, which the institutions cited as some of the reasons for acquiring their own

gowns, confirms Howard et al.'s (2019) findings that academic gowns are hired at an exorbitant cost by the institutions in need and are also sources of internally generated ventures for the institutions who own the gowns.

The study again discovered that only a few technical universities (i.e., ATU, HTU, and KsTU) primarily produced their gowns in-house, while the rest outsourced them to Ghanaian gown makers with management input. This study believes that it will be a significant accomplishment if the institutions with a vast array of arts expertise can be commissioned to produce meaningful, customised gowns. The days of a few management members meeting gown designers and replicating gown designs in the system should be over. It has been argued that manufacturing in-house is preferable to outsourcing (Kinkel, Jager, Horvath, D., & Reider, 2016). According to these authors, manufacturing in-house ensures a quick and credible response to market changes, less reliance on suppliers, and better quality through uncomplicated and independent safeguarding and management, among other benefits. In contrast, Kumari (2013) has stated that by concurrently outsourcing and insourcing, one can obtain the best of both options, and the business can greatly benefit. Based on Kinkel et al.'s (2016) assertion, it can be concluded that when academic gowns are manufactured in-house, better quality control measures will be implemented by both management and the manufacturing team to ensure quality products. It can help improve the practical knowledge of both students and lecturers in the departments concerned, as well as bring satisfaction to the designers and manufacturers because their efforts have paid off.

The findings also revealed that academic gown acquisition began in the polytechnic era and was produced incrementally, with polytechnics acquiring their first gowns

between 2000 and 2012. Because of financial constraints, they temporarily halted production of gowns for all levels, and the euphoria of the gown designs was reignited when the polytechnics were to be upgraded to Technical University status. Up until now, only a few of the study participants have the full complement of their gowns. Apparently, the continuous use of borrowed gowns has a negative impact on the institution's brand identity and image because it sells the institution from which the gowns were hired rather than the borrower institutions (Howard et al., 2019). According to Roach-Higgins and Eicher (1992), an individual's dress serves as a means of communication that connects the wearer to his or her identity and self to others. As a result, technical universities and, by extension, higher educational institutions must acquire gowns as soon as possible to avoid identity challenges (Howard et al., 2019).

Some technical universities are gradually producing their own gowns, while others are still contemplating doing so due to financial constraints. Currently, none of the institutions has sufficient gowns for their wearers owing to the continuous increase in their population every year and hence continue to borrow from other institutions during ceremonial occasions. The institutions in turn rent out their gowns to others in need to generate revenue from what they have. The practice of renting out and borrowing gowns has been frowned upon by Howard et al. (2019) because it creates identity challenges for the institutions and hence must be halted. In line with the elimination of identity crises, Howard et al. (2019) argue that academic institutions' authorities should prioritise the acquisition of appropriate gowns in order to maintain their identity. As a result, the Technical University administration should try to raise some funds to purchase enough gowns for all levels and statuses. According to

Howard et al. (2019), universities will not lose money by investing in academic gowns because student graduation fees cover the cost of hiring.

More technical universities have either changed or modified their academic gowns since their initial designs, both the undergraduate and management gowns, while the rest have only changed the undergraduate gowns. The findings are consistent with the changes in academic dress at American universities, beginning with the reforms recommended and implemented by the intercollegiate costume code of 1895 and its subsequent re-adoptions in 1932, 1959, and 1986 to ensure standardisation in the use of gowns to suit the aspirations of Americans. This included all levels of degrees and positions in academic institutions, as well as the various components of the gown (such as the headgear, hood, and robe) (Armagost, 2009). Oxford University (North, 2014) and Cambridge University (Grooves, 2014) have also seen some changes in their academic attire as the universities have grown.

Locally, traditional university gowns have also undergone a series of transformations as they grew. Hence, the alterations will continue until the technical universities introduce new gown designs that are in line with their philosophies, shared values, and shared histories. Again, as the institutions expand in the future, the designs of their academic gowns will change. The study believes that through interactions with the institutions' participants and the publication of this study, more changes will be made to the gowns and, by extension, the gowns of Ghana's higher academic universities.

4.4 Objective 2: The Philosophies of Technical University Gown Designs

4.4.1 Overview of the section

This section covers the various crests and logos of the technical universities and their interpretations. The section also covers the various academic gown designs used by the technical universities and their underlying philosophies, as well as how the designs reflect the institutions philosophies. The following write-ups cover descriptions and interpretations of the academic gown designs of the Ghanaian Technical Universities under examination, in the following order: Accra Technical University, Cape Coast Technical University, Ho Technical University, Kumasi Technical University, Sunyani Technical University, Tamale Technical University, and Takoradi Technical University. Participants with the same profile responded to the questions regarding the design philosophies of the academic gowns as they had for the design histories.



4.4.2 ATU gown design philosophies

4.4.2.1 The Accra Technical University crest's symbolism

The crest of Accra Technical University (ATU) is made up of colours and symbolic motifs. The primary colours of ATU are gold and blue. The gold colour represents knowledge, learning, and mental development, and it represents the ultimate prize, the colour of winners, and the first-place prize. The colour blue denotes both the sky and the sea, as well as creativity, intelligence, inspiration, imagination, wisdom, order, and planning. It also represents security, dependability, strength, and trust (Figure 59).



Figure 60

The Heraldic Crest of Accra Technical University. Image Depicting the Heraldic Crest of Accra Technical University Showing the Designated Colours and Symbols of the Institution. Image Obtained from the Public Relations Office in November, 2021.

Aside from the colours, the crest includes a shield, a motto, a pair of vertical lines, a golden book, and a golden key. The shield represents Accra Technical University's heritage, while the motto represents integrity, creativity, and excellence. A pair of vertical lines signifies a stage in the ATU's academic path, from technical institution to polytechnic to technical university. The golden book represents a wellspring of information and a universe of exploration. The golden key represents access to information as well as the tools of discovery, freedom, power, and prominence. The head of the golden key formed the letter "A," which reflects ATU's location in Accra. The bit is made up of the letters- "T" and "U" and the "nkyimkyim" symbol. The "nkyimkyim" sign represents initiative, dynamism, and versatility, all of which are essential for translating knowledge into solutions (Figure 59).

4.4.3 Accra Technical University gowns

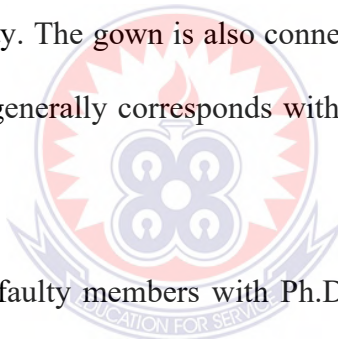
The three Accra Technical University HND gowns (Figures 20a, b, and c) are all black in colour with their corresponding hood shell and mortarboard cap attached to tassels, which are all black, hanging down from the top centre of the caps, flat surface. Two of the hoods are edged with gold and white satin fabrics to reflect their respective hood linings, while the other two do not. The hood linings are in the colours of green for the Faculty of Business, wine for the Faculties of Engineering and Built Environment, white for the Faculty of Applied Arts, and yellow for the Faculty of Applied Science (Figures 20 d, e, & f). The front facings vary, with the first gown containing a woven kente stole fixed to the two open parts of the front in the alternating colours of blue and yellow (Figure 20a). Figure 20b also shows the varied front facing of the HND gown, which is mainly black with kente fabric strips of gold alternating with a star motif also in gold. The third gown (Figure 20c), whose front facing is designed in multi-coloured kente in the colours of wine, blue, and yellow, the blue and yellow colours are part of the university's designated colours. The blues signify both the sky and the sea, as well as creativity, intelligence, inspiration, imagination, wisdom, order, and planning. It also represents security, dependability, strength, and trust. On the other hand, yellow denotes knowledge, learning, and mental development and also represents the ultimate prize, the colour of winners, and the first place prize. In general, the wine colour represents passion, energy, strength, and love at a very deep level. The black, also alien to the institution's corporate colours like the wine, signifies the black race, aging, and denotes vigour, vitality, and maturity. The front-facing kente fabric pattern (Figure 20a) is referred to as babadua. The "nsoroma" on the kente pattern denotes "child of the heavens." It is a symbol of faith, the belief in divine patronage, and reliance on a

higher power. The third gown also features a front face kente fabric pattern (Figure 20 c), generally known as the "merepa kente," meaning the "right time" kente. On the whole, the ATU HND gowns depict the institution's existence and its corporate identity through the blue and yellow colours. Through the black colour, it also depicts the wearer's successful acquisition of knowledge and expertise (i.e., strength, energy, and maturation) through their long years of education and training and that they now have the ability, confidence, and authority to contribute to the development of society. The gown is also connected to the black race through the colour black and the Ghanaian identity through the use of the various kente patterns.

The bachelor of technology gown (Figure 21) with mauve and white colours though having no connection with the Accra Technical University corporate identity through the colours, the adinkra motifs on the front face of the gown being the "nkyinkyim" and the "nsoroma" embroiled on the kente stole, all in white colour, depict the gown design's linkage to the Ghanaian culture. From the ATU logo interpretation, the "nkyimkyim" symbol represents initiative, dynamism, and versatility, all of which are essential for translating knowledge into solutions. Generally, the "nsoroma" (star) motif, as already stated, signifies faith, belief in divine patronage, and reliance on a higher power. Essentially, the colour white generally connects with egg white and clay, representing healing and purity. Mauve is the colour of innovation, inspiration, care, and intuition. It has the effect of uplifting, supporting, motivating, and intriguing. Positively, it has inspirational, empathetic, modest, and enchanted traits; negatively, it has standoffish, distant, sensitive, and withdrawn traits. Put together, this may imply that ATU B-Tech. gowns want to tell the world that in the journey of education, there may be ups and downs, but with faith and belief in God, coupled with

inspiration and perfection, they are ready to create with their minds to achieve the expected success.

The gowns worn by the faculty members with master's degree qualifications (Figure 22) are predominantly black and embellished with interconnecting white rhomboidal-shaped kente motifs on a black background that run the length of the gown at the front opening. And with white satin as the hood lining. As already indicated, both colours found on the gowns are not part of the designated colour scheme of Accra Technical University. However, the black colour in general depicts the wearer's successful acquisition of knowledge and expertise (i.e., strength, energy, and maturation) through their long years of education and training and their readiness to contribute to the development of society. The gown is also connected to the black race through the colour black. The white generally corresponds with egg white and clay, representing healing and purity.



The gowns worn by the faulty members with Ph.D. degrees (Figure 23) are mainly wine with black velvet strips on the front face, sleeve lining, hoodlining, and Tudor bonnet headwear to match. Once again, none of the colours can be associated with the corporate identity of the institution. In general, the wine colour represents passion, energy, strength, and love at a very deep level. Thus, it is assumed that Accra Technical University's wine emphasises the wearer's passion, strength, energy, and love for knowledge acquisition and education, as well as their willingness to do so. Therefore, considering the significance of the black colour as showing achievement, combining the wine with the black on the gown communicates to the public the wearer's acquisition of knowledge and skill and the zeal to share it with others for the development of society.

The gowns for the faculty deans and directors (Figure 24) are mainly blue for the apparel and bonnet cap and yellow for the edgings and front panels. The front panel exhibits the institution's embroiled logo, which embodies the philosophy of the institution, and the series of "nkyimkyim" symbols in black on a gold or yellow background. From the institution's logo interpretation, whereas the gold colour represents knowledge, learning, and mental development, representing the ultimate prize, the colour of winners, and the first place prize, the colour blue denotes both the sky and the sea, as well as creativity, intelligence, inspiration, imagination, wisdom, order, and planning. It also represents security, dependability, strength, and trust. The shield represents Accra Technical University's heritage, while the motto represents integrity, creativity, and excellence. A pair of vertical lines signifies a stage in the ATU's academic path, from technical institution to polytechnic to technical university. The golden book represents a wellspring of information and a universe of exploration. The golden key represents access to information as well as the tools of discovery, freedom, power, and prominence. The head of the golden key formed the letter "A," which reflects ATU's location in Accra. The bit is made up of the letters "T" and "U" and the "nkyimkyim" symbol. The "nkyimkyim" sign represents initiative, dynamism, and versatility, all of which are essential for translating knowledge into solutions. On the whole, Accra Technical University's ceremonial gowns for the deans and directors communicate totally to the public what the institution stands for. Like the deans' gowns, the senior management gowns (Figure 25) also holistically represent the institution's corporate identity with the inclusion of colour schemes and symbols belonging to the Accra Technical University.

The proposed honorary doctorate degree gown (Figure 26) is primary red, with yellow and blue strips forming the frontage panel. The yellow colour has also been used to edge the hood and for the sleeve lining. The black velvet bonnet for the cap has a rope in the colours of blue and gold attached to match the gown. The gold and blue colours as explained by the institution's logo interpretation, represent knowledge, learning, and mental development, and they represent the ultimate prize, the colour of winners, and the first place prize. The colour blue denotes both the sky and the sea, as well as creativity, intelligence, inspiration, imagination, wisdom, order, and planning. It also represents security, dependability, strength, and trust. The red, yellow and black colours do not form part of the institution's philosophy. However, in general, red colour is associated with energy, war, danger, strength, power, determination, as well as beauty, passion, desire and love. Hence, yellow colour on the other hand, aligns with the philosophies, and represents holiness, royalty, wealth, and beauty whereas the black denotes strength, energy, and maturation. Hence the honorary causa dress, is full of philosophies signifying how important the wearer is.

The other proposed gowns are for the teaching and non-teaching staff members (Figure 27). The teaching staff is mainly light blue for the apparel, cap, and hood shell, with deep blue fixed at the front opening and for the hood lining. The design of the non-teaching staff is identical to the design of the teaching staff, except that the former is mainly green. Whereas the blue colour is traceable to the institution's colour code, the green is not. As already explained, blue denotes both the sky and the sea, as well as creativity, intelligence, inspiration, imagination, wisdom, order, and planning. It also represents security, dependability, strength, and trust. The green generally,

signifies the association with plants and signifies growth, fertility, renewal, and good health.

In the nutshell, whereas the faculty managers and the senior management member's gowns are crafted to showcase the identity of the institution through the designated emblems and colours, the same cannot be said of the convocation gowns (Ph. D, and masters), bachelor as well as the proposed ones. The HND gowns are bit closer to the institution's philosophy.

4.4.3 Cape Coast Technical University gown design philosophies

4.4.3.1 The symbolism of the CCTU crest

As there was no official write-up on the logo, the study depended on the discussion with CCTUP2, a long-standing member and a former management member of the institution, to ascribe unofficial interpretations to the logo. CCTUP2 stated that the colour red in the CCTU logo signifies the engineering and liberal subjects learned at the university. The colour blue represents the sea and connects the university to the Cape Coast neighborhood. The yellow, on the other hand, represents the land's abundant riches, and the black gear represents the university's engineering, applied arts, and sciences disciplines. The torch gives a source of light to the student through the programs available, and the learner in turn imparts that knowledge to society. The university's slogan, "Nkyerekyere na nyimdzee ma nyansa," emphasises the value of education in the development of society (Figure 60).



Figure 61

The Crest of Cape Coast Technical University. Image Displaying Cape Coast Technical University Crest Showing the Institution's Official Colours and Symbols. Retrieved from [https:// tamale technical university logo image - tipz.io](https://tamaletechnicaluniversitylogoimage-tipz.io). Search tipz.io

4.4.3.2 Cape Coast Technical University gowns

The Cape Coast Technical University HND gowns, which are mainly blue-black for the various components of the gowns, have front-facing designs patterned in the form of "trommo mower," which literally means "bull's hoofs," denoting their Ghanaian identity, on a red background for one design, with the other design on a yellow background (Figure 28). The gowns have hood linings in the colours of yellow, red, and blue for the schools. The yellow represents applied science, the red represents engineering, and the blue represents business. All the colours are associated with the philosophy of the institution. The blue, according to the interpretation of the logo, represents the sea and connects the university to the Cape Coast neighborhood while the yellow represents the land's abundant riches. The colour red signifies the engineering and liberal subjects learned at the university.

The first management gown in the colour of wine for the main apparel has yellow front facing, hood lining, and a black velvet bonnet with yellow cord to match (Figure

30). Though the wine is alien to the university's colour scheme, the colour wine generally represents passion, energy, strength, and love at a very deep level. Whereas the yellow denotes the land's abundant riches, the black denotes strength, energy, and maturation. This means that when the ceremonial gown is worn, it communicates the institution's identity with the Cape Coast neighbourhood, the wearer's willingness to help train students to acquire knowledge and skills and disseminate them to the public through their products for the development of society.

The current management gowns, which are crafted in the colour codes of the institution in the colours of blue, yellow, and red for the main apparel and black for the velvet bonnet cap with yellow cord attached to match. It also features the institution's crest as an epitome of the institution's values, beliefs, customs, aspirations, and history (Figure 31). As communicated by the logo interpretation, the colour red in the CCTU logo signifies the engineering and liberal subjects learned at the university. The blue represents the sea and connects the university to the Cape Coast neighbourhood. Yellow on the other hand, represents the land's abundant riches, and the black gear represents the university's Engineering, Applied Arts, and Sciences disciplines. The torch gives a source of light to the student through the programmes available, and the learner in turn imparts that knowledge to society. The University's slogan, "Nkyerekyere na nyimdzee ma nyansa," emphasises the value of education in the development of society. In the nutshell the management ceremonial gowns communicate the corporate identity of the institution to the public both locally and on the foreign front. CCTUP1 on the HND and the first management gowns said,

We do not have any symbolic significance for the gowns, there is nothing. In my own opinion, I will say it is substandard because many factors were not considered. So, going forward, in order for the gowns to depict the institution, it has to consider those things so that anybody who wears them tells it all...

But such gown designs should be based on the institution's ideology, as well as an accompanying concept that will set the design apart from its contemporaries in Ghana and beyond.

4.4.4 Ho Technical University gown design philosophies

4.4.4.1 The HTU crest's symbolism

It should be emphasised that there was no accepted document on the logo, but the following definitions were provided by a member of a committee tasked with rebranding the institution to reflect its new status and who met with the designer of the logo to seek clarity. This individual (HTUP7) was officially appointed by the institution's authorities to provide such information on the crest. According to HTUP7, the two outer circles of the logo, the gear, the book, the flamed torch, the pot, and the motto make up the Ho Technical University crest. The two circles represent perfection, and our mandate as an institution is to assure excellence in training workers for national growth. The gear represents the technology part of our programmes' technical aspects. The open book beneath the gear represents knowledge. The flamed touch in the gear in the middle of the logo also represents light and radiation. Within the circle, the pot that stores the flame serves as a repository for wisdom and understanding. That is the power of HTU; that is the source of the fire. The motto is "Adanu Nazu Kakali," which means that the information we gain should help society. Knowledge leads to enlightenment.

Knowledge illuminates our way. In terms of the colour scheme, HTU has three colours: royal blue, red, and white. Royal blue represents bravery and dedication. It also symbolises wisdom, depth of understanding, and serenity. It conjures images of the sky and the sea, whereas the red signifies the fire that is being burned. The fire also symbolises enlightenment. White denotes purity or innocence, light, goodness, illumination, brilliance, etc. (Figure 61). In essence, the logo and its elements represent HTU's essence and existence. As a result, it is used as a formal means of identity and uniqueness. It is argued that the gown designs of HTU must have their basis in the logo for the purposes of brand identity and image.



Figure 62

Ho Technical University Logo. Image representing Ho Technical University Philosophy Displaying the Designated Colours and Symbols of the Institution. Image Obtained in December, 2021 from Mr Kwami, a Member of the Ho Technical University 50th Anniversary Rebranding Committee.

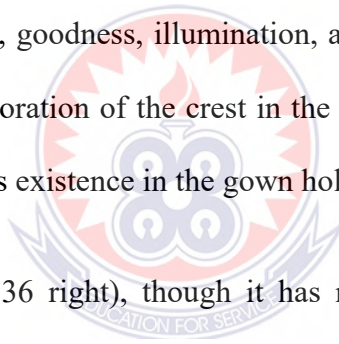
4.4.4.3 Ho Technical University Gowns

The Ho Technical University first gown features blue-black for the main apparel and headgear and satin front facings in the colours of red, green, gold, and purple to represent the faculties (Figure 33). Symbolically, red represents arts and design, green for engineering, gold for business, and purple for applied sciences and technology. These colour designations enable the arrangement of the graduands to be arranged on a faculty basis for the purpose of orderliness. From the logo, blue represents bravery and dedication and symbolises wisdom, depth of understanding, and serenity. It conjures images of the sky and the sea, whereas the red signifies the fire that is being burned and symbolises enlightenment. The institution's logo does not feature the colours such as green, gold, and purple, which are thus not part of the institution's philosophy. But in general, green on the gowns is associated with plants and signifies growth, fertility, renewal, and good health. Gold is linked to a precious metal and signifies wealth, royalty, and prestige, whereas purple aligns with royalty and signifies power, nobility, luxury, ambition, and conveys wealth and extravagance. The current HND gowns (Figure 35) are based on the concepts of the first gowns and therefore convey a similar message to observers. They nevertheless have hood linings and edgings at the cap bases that match their assigned faculty colours.

Management's first gown is predominantly red, with a blue front facing and flap collar, and a yellow tassel and gold trims for the sleeves to match (Figure 36 left). Red, per the logo interpretation, signifies the fire that is being burned, and the fire also symbolises enlightenment of society. Blue represents bravery and dedication, symbolising wisdom, depth of understanding, and serenity and conjuring images of the sky and the sea. The gold, though not part of the institution's colour scheme, is

linked to a precious metal and signifies wealth, royalty, and prestige. With the inclusion of the institution's logo, the gown design epitomises the institution's existence and, in effect, conveys the institution's philosophy to the public.

The second management gown (Figure 36 middle) contains all the designated colour schemes of the institution, which are red, blue, and white. Red forms the main colour on the gown on the gown design and signifies fire and denotes a source of enlightenment to society; blue for the front panels, mortarboard, and part of the sleeves, and the strips on the sleeve, represents bravery and dedication, symbolising wisdom, depth of understanding, and serenity, and conjures images of the sky and the sea. On the other hand, white, used for the piping and background of the logo, denotes purity or innocence, light, goodness, illumination, and brilliance, among others. Like the first gown, the incorporation of the crest in the latter makes the representation of Ho Technical University's existence in the gown holistic.



The third gown (Figure 36 right), though it has no logo, has been crafted in the colours of the institution. the main apparel and headwear being blue, red, and white for the front panels and red for the cord attached to the bonnet cap and for the strips on the sleeves. The design apparently communicates the institution's philosophy to the public and the wearer's authority, as in the case of the first two.

4.4.5 Kumasi Technical University gown design philosophies

4.4.5.1 The KsTU crest's symbolism

The Kumasi Technical University crest is essentially made up of the motto of the institution, the gear wheel, the stool fused with a shield, the "adinkra" symbol, the

burning flame, the book, and the blue band. It also has a colour scheme, which is blue, yellow, gold, and red. The blue colour signifies technology, intelligence, unity, and confidence. The yellow, red, and orange denote vibrancy, creativity, enlightenment, and brilliance. Gold represents wealth, prosperity, value, and tradition. Additionally, there is a stool fused with a shield, which represents royalty, the soul of society, and protection. The gear wheel represents the technical nature of the institution and the wheel of industrialisation and engineering.



Figure 63

Kumasi Technical University Crest. Image Depicting the Colours and Symbols of Kumasi Technical University Crest in Representation of its Philosophy. Image Obtained in January, 2022 from Dr. M.A. Essuman, Former Dean of Students of KsTU and Now with KNUST.

The "adinkra" symbol denotes knowledge, whereas the burning flame embodies the quest of the ignited mind for excellence in all spheres. The book represents the book and other educational materials, while the blue band contains the name of the institution. The motto of KsTU is "Nimdee Hyeren," embodying the importance of acquiring knowledge and sharing it to help grow society and its development (Figure 62). This crest forms the basis of the sovereignty of KsTU and is used as a brand identity and image for the institution. Creating the gowns on the basis of the logo

makes the designs unique for the institution. This study, therefore, used the logo to draw inferences to establish the design philosophy underlying the gowns.

4.4.5.2 Kumasi Technical University gowns

The first gown (Figure 38 left) is mainly blue-black in colour for the main apparel, hood shell, and mortarboard cap. Yellow coloured satin has been used as the hood lining and also for the tassel. Both colours are linked to the institution's colour scheme. The front face of the gown features woven multi-coloured kente strips forming patterns that are together known as the "adwinasa" kente pattern, meaning "skills have been exhausted," and signifies royalty, creative ingenuity, elegance, excellence, wealth, perfection, and superior craftsmanship. The blue, as explained by the crest's interpretation, signifies technology, intelligence, unity, and confidence, while the yellow, red, and orange denote vibrancy, creativity, enlightenment, and brilliance. Gold represents wealth, prosperity, value, and tradition.

The second (Figure 38 right) is similar in design and colour to the first gown except for the kente pattern on the front face. This pattern has an "oyokoman" background and is hence called "oyokoman" kente. It is believed that this was the first colourful kente design made and was named by Otumfuo, the Asante King at the time. The two academic gowns, though they do not feature the institution's crest, carry the identity of the institution through the blue and yellow colours. The kente motifs (both "adwinasa" and "oyokoman") connect the institution to its Asante cultural heritage. The third and current gown (Figure 38 middle), also in blue for the main apparel, hood shell, and cap, has a yellow hood lining and yellow front facing. These colours have the same philosophy as the first two regarding the blue and yellow colours.

The main garment, cap, and hood shell of the Master of Technology gown (Figure 39) are mostly blue. It has a yellow satin front face with open ends and the graduate school logo on the left and the institution logo on the right. The cap and hood have yellow trimming and a matching yellow hood lining. Essentially, the gown has been intended to philosophically reflect KsTU and the graduate school through the colours and logo symbolism on the robes, which correspond to logo interpretations.

The first management gowns (Figure 40, left and right) are predominantly red-wine in colour for the main apparel and hood shell. The front panel, the strips on the sleeves, the front facing panels, and the front part of the hood are blue, while the hood is lined with yellow and the piping is also yellow. The front facing of the gown houses the institution's logo, which embodies the philosophy of Kumasi Technical University. From the logo's interpretation, the blue colour signifies technology, intelligence, unity, and confidence. The yellow and red denote vibrancy, creativity, enlightenment, and brilliance. The Vice Chancellor's investiture gown (Figure 40 middle) also uses the same colour scheme as the first gown, though the design of the sleeve and the collar differ. Whereas the former uses a hood and bishop's sleeves, the latter uses a bell sleeve with a slit edged with yellow and a sailor's collar with a V-neck. The new sleeve design enables free movement of the hand. The third management gown is similar in design and colour to the investiture gown (Figure 41), but instead of the collar, it features a drape-like hood for the Registrar, and the Pro Vice Chancellor and Vice Chancellor use flap collars, as do the Council Chair and the Chancellor, but the latter use collars that are worked from the front panels to end at the back of the neck. The registrar's type of hood signifies the importance of the office as the heart of the

institution. In general, management gowns are craftily designed to signify the university's identity and sovereignty and the authority of the wearer.

The lack of detailed documentation on the gown designs and the difficulty in information retrieval has been a canker as pertains to the sister Technical Universities. KsTUP12 on the design processes of the gown says that,

Before the work, there is paperwork. We go and present to them that these are the designs. We explain each and every technical detail to them (management) for them to understand and they also give their input. At the end of the day, we agree and we move on.

When we make our presentations, we give them copies. Some only have hard copies, and sometimes both (hard and soft copies). Where is the person who is going to receive the soft copy going to store it? may be on his/her private laptop. In the hard copy, the information may be there alright, but how do we trace it? KsTUP10 said.

It is very important that such documentations are provided for the education of the university community, the general public and interested researchers.

4.4.6 Sunyani Technical University gowns design philosophies

4.4.6.1 The Symbolism of the STU crest

The Sunyani Technical University crest comprises colours such as red, green, black, and white, with the other features of the crest being the red gear, red diagonal lines, the black adinkra symbol, and a green arc. For the colours, red means life, health, vigour, war, courage, anger, love, and religious fervour. This signifies the brave nature of the people of Sunyani, the courage of the university, and the acceptance of all kinds of people who are ready to learn from the university. Green is universally associated with nature and is linked to grass, plants, and trees. It also represents

growth and renewal, being the colour of spring and rebirth, and also symbolises the readiness to move. The colour green for STU signifies the abundance of food in the Bono Region, the healthy nature of our environment, the readiness to diversify in growth and strength, as well as the coolness of our environment. Black is a definite color. It is the colour of borders and authority. Though we have many negative associations with the colour black, it also gives us a feeling of real beauty and real identity. In STU, black signifies the definite core values of the university, the beauty of the black heritage, the respect for authority and leadership, and also the true culture of our homeland, Ghana. White represents purity or innocence and conveys cleanliness, freshness, and simplicity. The colour white often seems like a blank slate, symbolising a new beginning or a fresh start. For STU, white signifies respect and acknowledgment of God as our supreme authority, the unity of the university fraternity, and our steadfastness in discipline and motivation (Figure 63).

The red gear represents the technical values of the university and the academic movement of the university from one stage to another. The red diagonal lines represent the new day and freshness of ideas and knowledge of the university, the glory and honor of the university. The black adinkra symbol represents the core mandate of the university in teaching people to know what they are ready to learn, including the culture and traditional linkage of the university to our mother land. The Green Arc represents the outstanding performance of the university in its area of academics and its core values (Figure 63).



Figure 64

Sunyani Technical University Logo. Image Depicting the Colours and Symbols of Sunyani Technical University Signifying the Institution's Philosophy. Image Obtained in October, 2021 from Mr Alex Obeng Boateng, the Designer of the Logo and Staff of STU.

Like the other academic institutions in Ghana and elsewhere, this crest acts as the institution's brand identification and image and serves as the cornerstone of STU's sovereignty. The incorporation of the logo design concept into the gown designs distinguishes the designs for the university and improves brand recognition. Thus, the logo is used in this study to logically infer the design philosophy behind the gowns as well as to establish the suitability of the designs.

4.4.6.2 Sunyani Technical University gowns

Sunyani Technical University's first management gown (Figure 44) features red for the main apparel, yellow front strips, and a hood lining with the base of the sleeve turned to show the yellow lining, with a black velvet bonnet cap to match. The yellow front strips house the Nyansapow emblem (wisdom knot). While some of the designs have wine cord attached to the cap, others feature yellow cord. Though the logo of Sunyani Technical University does not contain yellow, the colour on the gown

generally signifies the egg yolk and represents holiness, royalty, wealth, and beauty, while red means life, health, vigour, war, courage, anger, love, and religious fervour. This signifies the brave nature of the people of Sunyani, the courage of the university, and the acceptance of all kinds of people who are ready to learn from the university. The black on the other hand, signifies the definite core values of the university, the beauty of the black heritage, the respect for authority and leadership, and also the true culture of our homeland, Ghana.

The current management gown (Figure 45) is predominantly green in colour for the main apparel, the collar, and headwear, with the cap having a twisted yellow cord attached. The gowns showcase a customised kente patterns sandwiched between two strands of red strips forming the front facings. The upper red dots house the university's logo. The kente strands have two motifs, "mpuanum" and "nsatsea," and they are together called "Obaakofo mmu man," which literally means "one person cannot rule a nation," denoting the essence of making collective decisions for success. This design used to be called "Fathia fata Nkrumah," which was changed to "Obaakofo mmu man" after the overthrow of President Nkrumah in 1966. It contains the red, yellow, and green "nsatea" motifs alternating with the yellow "mpuanum" motifs on the black background. Its use in STU gowns alluded to the all-encompassing nature of its management. According to the logo's write-up, the green colour signifies the abundance of food in the Bono Region, the healthy nature of the environment, the readiness to diversify in growth and strength, as well as the coolness of the environment. The black signifies the definite core values of the university, the beauty of the black heritage, the respect for authority and leadership, and also the true culture of our homeland, Ghana. The red colour signifies the brave nature of the

people of Sunyani, the courage of the university, and the acceptance of all kinds of people who are ready to learn from the university. The yellow and gold on the gowns are alien to the university's designated colours, but generally represent holiness, royalty, wealth, and beauty, whereas the gold also signifies wealth, royalty, and prestige. STUP5, explaining the symbolism of the new management gown features, stated that "the sleeves of the gowns are t-type sleeves. This was chosen based on academic freedom and fairness. The customised kente pattern used as the frontal facing demonstrates the rich cultural heritage of Ghana". All together, Sunyani Technical University management gowns essentially represent the identity of the university, the Bono Region, and the authority of the wearer.

The PhD gowns (Figure 46) are mostly red in colour for the main apparel, headgear, and hood shell; green for the front facing and part of the hood lining; and yellow for the lining and edges of the hood, as well as the twisted cord attached to the bonnet cap. The yellow also forms the base edge of the sleeves, the sleeve bars, and the hood edgings to match. The institution's logo is embossed on the front face and the upper back of the gown to emphasise the university's identity. As already ascribed to by the logo interpretations, the red signifies the brave nature of the people of Sunyani, the courage of the university, and the acceptance of all kinds of people who are ready to learn from the university. Green signifies the abundance of food in the Bono Region, the healthy nature of their environment, the readiness to diversify in growth and strength, as well as the coolness of the environment. The yellow colour represents holiness, royalty, wealth, and beauty, while the gold stands for wealth, royalty, and prestige. Black signifies the definite core values of the university, the beauty of the black heritage, the respect for authority and leadership, and also the true culture of our

homeland, Ghana. White, however, signifies respect and acknowledgment of God as the institution's supreme authority, the unity of the university fraternity, and their steadfastness in discipline and motivation. This gown also carries the philosophy and identity of the institution.

The Bachelor of Technology gowns (Figure 47) also carry the identity of the university, and the underlying philosophy is shown through the use of the black, green, and white colours on the gown designs, which are part of the official colours of the university. The main apparel is black in colour with a green and white front face and the logo embossed on the white background. The outer side of the hood is black, but the lining is white. The inclusion of the institution's logo summarises the philosophy of the institution on the gown and, therefore, when worn, can tell the true story of the institution in view of the interpretations already given.

Just as it is typical of the technical universities, this study could not find any documentation apart from the logo on the gown designs, despite the claims that the gown designs are approved based on the presented documents to management.

4.4.7 Tamale Technical University's gowns' design philosophies

4.4.7.1 The symbolism of the TaTU logo

The Tamale Technical University (TaTU) logo, like many other technical university logos, is made up of colours and other components like mechanical gear, a book, a wrench, a torch of flame, and a motto. For the colours, green represents the natural resources that the institution has at its disposal. The vegetation of the savanna, the opportunities, and the tranquility. It signifies TaTU's ability to take advantage of the

environment (vegetation). The colour red represents seriousness as well as a burning desire or sense for success. TaTU's potential to brighten society via knowledge and expertise is symbolised by this symbol. The colour yellow represents the richness that exists beneath the surface of the world. It is linked to happiness, sunshine, and the tropics. It is a symbol of zeal, joy, creativity, determination, and stimulation. As a result, TaTU imparts knowledge and competence in the use of these natural resources in order to perpetuate society's benefits. The book is a repository of information. The mechanical gear represents technological advancement. It also symbolises the industrial age. The gear represents interdependence and the individual's function in collaboration with labor and management for the greater good of mankind. The spanner represents hands-on training and skill development. A university that is focused on technology. The torch of flame symbolises how knowledge gained brightens society. It demonstrates how the university is leading the way in the North in technical education. The design is supported by the motto "Bagsim mini Nuuni Tuma," which means "knowledge and talent." It forms the logo's banner, which ensures its stability (Figure 64).



Figure 65

Tamale Technical University Logo. Image of the Logo Exhibiting the Designated Colours and Symbols of Tamale Technical University. The Logo Symbolises the Institution's Philosophy. Retrieved from <https://tamale technical university logo image - tipz.io>. Search tipz.io

TaTU's logo, like those of other academic institutions in Ghana and internationally, serves as TaTU's brand identification and image, as well as the backbone of its sovereignty. Integrating the logo design concept into the gown designs identifies the designs for the university and promotes brand identification. Consequently, in the present study, the logo is utilised to logically determine the design philosophy behind the gowns and to also analyse the acceptability of the designs.

4.4.7.2 The TaTU gowns

Tamale Technical University's first undergraduate HND gowns (Figure 48) are predominately blue-black colour for the main apparel, hood shell, and headwear. The hood lining has a light blue colour and the gowns are front-faced with Northern Kente strands called "Bangroga," designed with an alternating blue and white colours running

vertically at both sides of the gowns' opening and which houses the institution's logo at the chest level. The "Bangroga" weave signifies the cloth for the commoners, hence its use for the HND gowns. It connects the gown design to the Northern culture because the institution is in the Northern region of Ghana. Again, the underlying concepts of the gowns' sleeves were drawn from a pot found in a suburb of Tamale called Kuku; this was done to enrich the cultural linkage of the gown designs.

The management ceremonial gowns (Figure 50) are also predominantly green, with black velvet facings running down the gown on which the logos are stuck and black velvet bands on the sleeves. The gowns have coloured pipings designed by the use of the twisted cords, and these dictate the authority of the wearer. The Council Chairperson uses all yellow and a fusion of yellow and green twisted cords; the Vice Chancellor uses all yellow and a fusion of yellow and mauve; the Pro Vice Chancellor uses a combination of white, blue, and red for the cords; and the Registrar's gown features a multicolours of red, green, and white to match. The rear of the gowns exhibiting the hoods are colours chosen according to the authority of the wearer. For the Council Chair, the hoodlining is a chevron of green and yellow; the Vice Chancellor, the Pro Vice Chancellor, has mauve in addition to the green and yellow; and the Registrar has red in addition to the green and yellow colours.

The gowns for the convocation members holding doctoral degrees (Figure 51) are also green, with red for the front panel, cap, sleeve bars, and lining. Green for the main apparel and cord, and a chevron of red and green satin for the hood lining. Like the other gowns, there are logos embossed on the front panels that embody the philosophy of the institution.

The gown for the university convocation members with a master's degree (Figure 52) is mainly blue with a yellow hood lining and a green front facing on which the logos are stuck. The gown's mortarboard cap has an attachment of yellow cord forming the tassel. The philosophical messages communicated by the gown colours and the logo are no different from the undergraduate HND gowns, as has been ascribed earlier.

The second and current HND gowns (Figure 53) have the greater part of the gown being green with strands of yellow fabric forming the front face, the tassel attached to the mortar board cap, hood lining, and hood edging. The logo of the institution is also present on the gown. Unlike the first gown, this design's colour codes are the designated colours of the institution, and with the logo included, it carries the philosophy and identity of the university.

Even though the colour scheme of the apparel for the first HND and convocation members' gowns is blue and is not the official colours of the institution, generally, blue depicts the sky and represents harmony, peace, and good fortune, whereas white represents healing and purity. The mauve on the senior management ceremonial dresses symbolises inspiration, innovation, care, and intuition. It uplifts, supports, motivates, and intrigues. The colour black is associated with aging and denotes vigour, vitality, and maturity. The colours forming the logo design are yellow, green, red, black, and white. From the logo interpretations, yellow represents the richness that exists beneath the surface of the world. It is linked to happiness, sunshine, and the tropics. It is a symbol of zeal, joy, creativity, determination, and stimulation. Green signifies the university's ability to take advantage of the environment (vegetation). The colour red represents seriousness as well as a burning desire or sense for success, that is the University's potential to brighten society via knowledge and expertise is

symbolised by this symbol. Apart from the colours, all symbols like the book represent interdependence of information. The mechanical gear represents technological advancement, interdependence and individual's function in collaboration with labour and management for the greater good of mankind. The spanner represents hands-on training and skill development, a University that is focused on technology. The torch of flame symbolises how knowledge gained brightens society, and demonstrates how the university is leading the way in the North in technical education. The motto "Bagsim mini Nuuni Tuma," which means "knowledge and talent," summarises the philosophy of the institution.

In a nutshell, the institution's gowns carry its philosophy and identity as a result of the incorporation of the logo in the design. Apart from the philosophies that underlie the colours and elements of the institution's logos, there are other underlying concepts underpinning the gown designs of the first TaTU undergraduate gowns. TaTUP5, who was part of the design team, commented on the HND designs as follows:



At that time, we were looking at how we were going to use the Northern kente for the frontage of the gowns. We sat down and we looked at the old KNUST gown kente front facing. And so, based on what we wanted, we used the kente from the North to portray the Northern culture. For us to get the colours to come out, we have to get a background that is a little darker. That will not be part of those that we are using for the frontage. So that the frontage will come out and people will see it clearly. That is why we chose the blue-black... So, the inspiration came from the pot — the one that looks like a calabash inspired the design of the sleeves.

TaTUP4, highlighting the design concept of the gowns, also added that I decided that I could use the cloth... "Tani." ... The kind of weave also tells the rank of the person in

society. So those were the ideas that I came up with. TaTUP4 described the Rector's design concepts and design philosophies as follows:

If you are rich, there is a kind of smock for you, and if you are a royal, there is a kind of smock that you wear. All of these are based on the design. You see, some of the smocks have very large arms. So, if you are in the highest position in the institution, you will want to go for the type with big arms. And so, I did the design, but I did not want it to be just like the traditional one, like what the chiefs wear. Because I am in academia, you have to design it like an academic gown, which is open in the front with an academic cap to match. It was a very big hat with a string attached.

Apart from making inferences from the logo's write-up to decipher the meanings of the colours on the gowns, there are no documented records specifying the conceptual import of the gown designs. This is no different from the other study areas.

4.4.8 Takoradi Technical University gowns design philosophies

4.4.8.1 The symbolism of the heraldic crest of TTU

Takoradi Technical University, first and foremost, has three primary colours: blue, yellow, and red. The colour blue represents the members' honesty and trustworthiness, as well as the global aspect of the institution's technological education and training. The colour yellow, on the other hand, represents the institution's status in technical and vocational education since it represents honour and commitment. The university's forefathers shared energy, strength, power, and resolve, as well as passion, desire, and love, through academic vigour, hard work, and sacrifices put down for the success of academic excellence and all its undertakings, and the colour red signifies this.

The cogwheel symbolises technical and vocational education excellence in personnel training and action research; it acts as the institution's brain, while the institution is the engine machine. It promotes and drives the institution forward via academic achievement by providing opportunities for people in the community and beyond to gain technical and vocation-education skills and knowledge. The Adinkra sign, "Ntesie" or "Mate Masie," represents the institution's wisdom, understanding, and caution in considering everything that has occurred in the university community. Deep wisdom comes through listening and keeping what is heard. It also connotes a spiritual or religious resemblance between the land's traditional practices, culture, and institutions, which shared a common link across time. It also serves as a storehouse for the institution's Ghanaian cultural values by instilling those values in the university community. It represents the mark of individual contribution from hierarchical efforts in the institution's development through technical and vocational education, manpower training, and action research to help industry and begin in the fields of human resources and information development. For the benefit of both present and future generations, the open book serves as a platform for recording and perpetuating timeless truths, wisdom, and knowledge. It is, once again, a lasting reminder of the institution's great leaders' thoughts, philosophy, and practices as they have been passed down through the ages. The written pages represent the unwritten future and events that are yet to occur, reminding the institution that there is still work to be done, a story to be told, decisions to be made, dreams to be pursued, and adventures to be had. In terms of educational activities, it constantly reminds the institution of the importance of lifelong learning for the Western Region's industrialisation and economic development and Ghanaians in general. Furthermore, it signifies the educational programs that the university seeks to provide for its

students so that they can learn and grow throughout their lives. By presenting its richness in oil and gas, fishing, and seaports as an industrial and commercial center for commerce, sea waves convey the institutions' pride in their natural endowment of resources. It is also a cautionary warning, as productivity comes with its own set of obstacles, but there is hope in the institution's day-to-day efforts in all areas of development. The red ring circle in the emblem represents the institution's hard work and sacrifices, which underpin success in academic excellence and all of life's activities. It also represents all human civilisations that the institution accepts (Figure 65).



Figure 66

Takoradi Technical University Herarldic Crest. Image Displaying the Official Colours and Symbols of Takoradi Technical University Symbolising the Institution's Philosophy. Image Created by Donkor et al. (2020).

<https://www.researchgate.net/publication/350907681>

The bright golden circle represents wealth created through the application of skills and knowledge gained through the institution's distinctive curriculum. It also highlights the institution's intellect and integrity by presenting a wealth of ideas and initiatives to anyone or any entity seeking academic acclaim. The inscription "Adwen,

akoma na nsa ma mpontu" (the mind, heart, and hand) indicates talents and knowledge generate progress, as the institution's motto symbolises the university's identity and values. It supports Ghanaian culture's history by providing high-quality technical and vocational education (Donkoh et al., 2020). See Figure 65 for the crest.

On the strength of the above, Takoradi Technical University's heraldic crest acts as the institution's brand identification and image and serves as the cornerstone of its sovereignty. The use of the crest design concept in the gown designs distinguishes the designs for the university and increases brand identification. Thus, the crest is used in this study to conceptually deduce the design philosophy behind the academic dresses as well as to establish the suitability of the designs.

4.2.8.3 The Takoradi Technical University gowns

Takoradi Technical University HND gowns (Figure 55 right) are mainly blue with a black hood shell and yellow hood lining to match and a blue-black tassel to fit the blue-black trencher. On the front face of the gown is fixed a yellow strand of cloth housing the institution's logo at the upper level of the front. Unlike the HND gowns, the Bachelor of Technology gowns (Figure 55 left) also feature predominantly blue-black fabric for the main apparel and headwear and a black hood shell with a yellow lining and yellow tassel to match. The front-facing strips at the gown openings are longer than those of the HND, signifying the status distinctions between the two. On the other hand, the gowns for the convocation members who hold master's degrees (Figure 55 middle) are mainly black for the main apparel headwear, and hood shell. The gowns contain white front facing strips to the full length of the gown on which the logo is stuck, and a similar colour for the hood lining to match. The staff members with PhD qualifications use the all-wine gown. The gowns

nonetheless have a black velvet bonnet cap and front panel and wine sleeve and hood linings to correspond with the inclusion of the institution's crest for easy identification (Figure 56). For the management ceremonial gowns, the deans and directors' gowns (Figure 57) are also designed in wine colours similar to the Ph.D. gowns but with front kente strips to form the front panel and a yellow hood lining, unlike the Ph.D. ones. Again, like the Ph.D. gowns, the cords attached to the cap are wine in colour. Just as the Ph.D. gowns feature the three sleeve bars, so do these gowns (Figure 56). The senior management ceremonial dresses (Figure 57) are very similar to the other management gowns, but the hood type is different. While the deans and directors' hoods are of the CNNA type (Figure 57, middle), the senior management hood (Figure 58, top left) is simpler, except for the registrar's hood, which is similar to the deans (Figure 57, middle). The registrar's ceremonial gowns (Figure 58, top right and bottom left) have blue satin linings for the sleeve, hood, and cord attached to the wine velvet bonnet cap. Whereas the management ceremonial gown front panels (Figures 58) exhibit the "Fathia fata Nkrumah" kente patterns, the registrar's features the "Edwin si dwin so" kente patterns. Philosophically, both the HND and Bachelor gowns have underlying philosophies that connect to the institution as regards the colour blue and yellow. From the crest's interpretation, the colour blue represents the members' honesty and trustworthiness, as well as the global aspect of the institution's technological education and training. The colour yellow, on the other hand, represents the institution's status in technical and vocational education since it represents honour and commitment. The black and wine colours on the gowns are alien to the institution's philosophy. Essentially, the colour black signifies authority, power, stability, and strength. It also connects with intelligence. This presupposes that the black robe used by the master's degree holders and the Ph.D. cap and front panels

connote how intelligent the holders of that degree are. The symbolism of TTU's wine colour for the ceremonial dresses of management (deans, directors, and senior management) represents passion, energy, strength, and love at a very deep level. Because management members are the institution's major decision-making bodies and administrators, wearing wine and black on ceremonial occasions demonstrates the calibre of officers placed in positions of trust in the institution. The fusion of wine and black for the Ph.D. academic dresses also shows that the wearers have gained authority, power, passion, and love for knowledge acquisition and sharing with society for the development of mankind.

Management ceremonial gown front panels (Figure 58) exhibit the "Fathia fata Nkrumah" kente patterns, while the registrar's features the "Edwin si dwini so" kente patterns. "Fathia fata Nkrumah", was changed to "Obaakofo mmu man" after the overthrow of President Nkrumah in 1966. Some of the motifs in the former are, from the top, "babadua serwaa", "apremo" meaning "gun", "babadua", nkyimkyim," with the zigzag motifs, and the yellow "mpuankrong" on the black background. The "adwin si dwini so" front-facing panel used by the institution's registrar also consists of red, blue, and black "nsatea" motifs alternating with black, blue, and wine "apremo" meaning "gun" on a yellow background to match. These kente patterns are meant for prominent people in society, and therefore, it is apt that such officers are using them.

The inclusion of the crest's elements, which epitomise the existence of the Takoradi Technical University, also adds more. For example, the university's forefathers shared energy, strength, power, and resolve, as well as passion, desire, and love, through academic vigor, hard work, and sacrifices put down for the success of academic

excellence and all its undertakings, and the colour red signifies this. The cogwheel symbolises technical and vocational education excellence in personnel training and action research; it acts as the institution's brain, while the institution is the engine machine. It promotes and drives the institution forward via academic achievement by providing opportunities for people in the community and beyond to gain technical and vocation-education skills and knowledge. The Adinkra sign, "Ntesie" or "Mate Masie," represents the institution's wisdom, understanding, and caution in considering everything that has occurred in the university community. Deep wisdom comes through listening and keeping what is heard. It also connotes a spiritual or religious resemblance between the land's traditional practices, culture, and institutions, which shared a common link across time. It also serves as a storehouse for the institution's Ghanaian cultural values by instilling those values in the university community. It represents the mark of individual contribution from hierarchical efforts in the institution's development through technical and vocational education, manpower training, and action research to help industry and begin in the fields of human resources and information development. For the benefit of both present and future generations, the open book serves as a platform for recording and perpetuating timeless truths, wisdom, and knowledge. It is, once again, a lasting reminder of the institution's great leaders' thoughts, philosophy, and practices as they have been passed down through the ages. The written pages represent the unwritten future and events that are yet to occur, reminding the institution that there is still work to be done, a story to be told, decisions to be made, dreams to be pursued, and adventures to be had. In terms of educational activities, it constantly reminds the institution of the importance of lifelong learning for the Western Region's industrialisation and economic development and Ghanaians in general. Furthermore, it signifies the

educational programmes that the university seeks to provide for its students so that they can learn and grow throughout their lives. By presenting its richness in oil and gas, fishing, and seaports as an industrial and commercial centre for commerce, the sea conveys the institutions' pride in their natural endowment of resources. It is also a cautionary warning, as productivity comes with its own set of obstacles, but there is hope in the institution's day-to-day efforts in all areas of development. The red ring circle in the emblem represents the institution's hard work and sacrifices, which underpin success in academic excellence and all of life's activities. It also represents all human civilisations that the institution accepts. The bright golden circle represents wealth created through the application of skills and knowledge gained through the institution's distinctive curriculum. It also highlights the institution's intellect and integrity by presenting a wealth of ideas and initiatives to anyone or any entity seeking academic acclaim. The inscription "adwen, akoma, na nsa" (the mind, heart, and hand) indicates talents and knowledge generate progress, as the institution's motto symbolises the university's identity and values. It supports Ghanaian culture's history by providing high-quality technical and vocational education. Both the colours wine and black do not affiliate with the philosophy of the institution. On the whole, Takoradi Technical University academic gowns at all levels are packed with philosophies that need to be published for education of the wearers and observers.

On the whole, the result has presented some findings worthy of discussion. One of the findings points to the fact that all the technical universities have philosophies that are summarised by their logos or crests in terms of their designated colour codes, emblems, and mottoes, and these are in most cases incorporated into the institutions gown designs. Using the emblematic representations of the institutions on their gowns

aligns with Amissah's (2016) study, which revealed that an institution's mission and vision form one of the factors for creating corporate identities (such as the crests, logos, and emblems) used in producing the anniversary clothes at Ghanaian universities. It is also consistent with a 2012 study by Kang et al., which posits that academic costumes serve as potent visual reminders of the school's traditions, academic standing, and significance.

The major differences in the gowns that draw institutional distinctions, highlighting their identities, are found in the emblems (i.e., the logos and crests). This finding agrees with the study of Howard et al. (2015), which indicated that the gown designs vary according to the philosophies of the institutions.

Other findings indicate that some universities, nevertheless, only use their logos on the gowns at the management level. Studies have revealed that the symbols and graphical components that support the academic institutions' corporate visual identity are essential for their visibility, distinctiveness, authenticity, transparency, and consistency of reputation (van den Bosch et al., 2005; Watkins & Gonzenbach, 2013). In line with the authors, in order to represent their identities on their gowns, institutions like Sunyani, Tamale, and Takoradi Technical Universities include their distinctive logos and colours on their robes. Similarly, the logos of the majority of local traditional institutions are embossed on the gowns for quick recognition—exemplary are KNUST, UEW, and others—but at the University of Ghana, only the management ones have them (see Howard et al., 2015). The findings agree with the literature concerning the use of emblems on academic gowns. For instance, internationally, while the University of Harvard uses the crow's foot in the designated colours of the degree (Hoffmann, 2009), Columbia College uses blue-coloured gowns

with the King's crown on the facing at the chest level for the undergraduate gowns (Wolgast, 2009), and Birmingham uses a coat of arms (Goodman, 2019). Newton (2014) has stated that in America, several universities feature their coats of arms near the top of the front facings of their gowns. Others, like Oxford, Cambridge, Hertfordshire, Wollongong, Manitoba, Kenyatta, and so on, do not showcase their emblems on their gowns. Newton (2014) has also asserted that, aside from a small number of universities, such as Durham and Wales Universities, which use palatinate purple and shot silks, respectively, most academic gowns are distinguished by a fusion of shapes, sizes, and colours of the garments, with nothing indicating the link with the university in question. This may be the reason why some institutions choose not to include their logos on their gowns. As a result, it is possible to excuse those who do not use logos. But it will be appropriate to incorporate such emblems, as suggested by van den Bosch et al. (2005) and Watkins and Gonzenbach (2013), for the goal of authentic identification and branding.

Regarding the colour codes on the gowns, some of the colours cannot be associated with the institutions' philosophy. For instance, the majority of HND gowns employ dark hues like black, blue, and blue-black, some of which may not be associated with their institution's philosophy. Accra Technical University's black is one of them; it differs from their chosen colours, which are blue and yellow. Also, the two Bachelor of Technology gowns come in mauve with white lining and facing for Accra Technical University or blue with yellow lining and facing for Takoradi Technical University. The use of mauve and white by Accra Technical University is not consistent with its philosophy. But according to Olesen (2013), mauve symbolises inspiration, innovation, care, and intuition. It uplifts, supports, motivates, and

intrigues. Contrarily, white is related to brightness, goodness, innocence, and purity. It is regarded as the colour of excellence. Psychologically, white allows for the development of everything the mind can imagine (Cerrato, 2012). Clay and egg white are frequently associated with healing and cleanliness (Thirumurugan & Nevetha, 2019). Thus, the combination of mauve and white on the Accra Technical University Bachelor of Technology gown communicates the wearer's ability to innovate with excellence.

Tamale Technical University also uses light blue for the convocation members with the master's degree, in addition to the black that is used outside of some of the institutions' official colours such as at Accra Technical University and Takoradi Technical University. Again, Tamale Technical University's philosophy does not include blue, nor is its relevance explained. However, the colour blue is thought to be similar to the sky and stand for harmony, serenity, and fortune. Black, as used on the gown, connotes strength, energy, and maturation (Thirumurugan & Nevetha, 2019). This means that the black and white on the two convocation gowns have underlying meanings of strength, energy, maturity, and excellence for the wearer after having gone through long years of education.

The three doctoral gown colour schemes are: green and red for the front panels, cap, and sleeve bars for Tamale Technical University; mainly red with strands of green, yellow, and gold on the front panels and linings and the cap for Sunyani Technical University; and wine with black front panels, cap, and linings for Takoradi Technical University and Accra Technical University. Except for the yellow and gold, the gowns are coloured in Sunyani Technical University's colours. However, the justification for using yellow and gold is not provided. According to a study, whereas

yellow is associated with egg yolk and represents holiness, royalty, richness, and beauty, gold is associated with a valuable metal and denotes prestige, wealth, and royalty (Thirumurugan & Nevetha, 2019). Again, Takoradi Technical University and Accra Technical University have not justified their use of the wine and black colours on their gowns. However, alpapedia.net/wine-color has demonstrated that wine is a rich shade of red and that it deeply connotes passion, energy, strength, and love. As a result, it is considered that the wine gowns produced by Takoradi Technical University and Accra Technical University connote their commitment to and enjoyment of acquiring information and education. Given the significance of the colour black, pairing wine with the black facings, linings, and caps that make up the gown components makes it possible for them to succeed even more.

Blue-black and or black (ATU), blue (CCTU), blue, white, and red (HTU), red wine (KsTU), green (STU and TaTU), and wine (TTU) are the different study areas' management gown colours. Traditionally, black represents Africa, red represents the blood of the forefathers, yellow represents gold, and green represents the richness of the land (Lloyd, 2017). All gown colour schemes, with the exception of TTU, were inspired by the logos of their respective institutions. Wine from TTU contradicts their concept. Osei-Poku (1999) has advised that academic robes should be made to reflect the objectives and ideologies of the institution, and this includes using the designated colours of the institution on the gowns. In agreement with Osei-Poku's argument, Howard et al. (2019) have found that respondents preferred academic gown designs that reflect the traditions and ideologies of academic institutions and their faculties; hence, in order to ensure that the gown designs are fit for their purposes, consideration

of the philosophy is key. The use of the wine, as has already been mentioned, signifies intense desire, vigour, strength, and love.

Another finding shows that some of the universities also feature kente patterns and adinkra symbols on their gowns, either on the students' gowns or the management ones. Accra, Kumasi, and Cape Coast Technical Universities have kente patterns forming the front face of their HND gowns. For Accra, the patterns are "babadua" and "merepa kente,". Kumasi, on the other hand, displays kente patterns such as the "adwinasa" kente pattern, meaning "skills have been exhausted," and signifies royalty, creative ingenuity, elegance, excellence, wealth, perfection, and superior craftsmanship. The second has an "oyokoman" background and is hence called "oyokoman" kente. Cape Coast Technical University also uses woven patterns in the form of "trommo mower," which literally means "bull's hoofs." The "nsoroma" motif as an additional element on one of the front faces of Accra Technical University gowns denotes the institution's link with the Almighty God. These patterns and motifs represent the universities' traditional link to Ghanaian culture. Accra Technical University Bachelor of Technology gown facings displayed the "nkyinkyim" and the "nsonoma" motifs embroidered in white on a mauve background. Literature has shown that "nsoroma" literally means "child of the heavens (star)", which denotes "a symbol of reflection of God's guardianship". It also denotes hope, high expectations, and the power of the people (Lloyd, 2017). The "nkyinkyim" signifies initiative, dynamism, and versatility, all of which are essential for translating knowledge into solutions. Therefore, any time the gowns are worn, there are underlying messages being sent to the public locally and internationally that ought to be known.

For the management ceremonial gowns, Sunyani and Takoradi Technical Universities have embellished theirs with kente pattern designs. The former uses the "Obaakofo mmu man" kente pattern, which alludes to the all-encompassing nature of the institution's management, while the latter uses "Fathia fata Nkrumah," except for the Registrar's, which uses "adwin si dwin so." The kente patterns are for the use of important people in society, such as the rich and chiefs (Lloyd, 2017). Thus, their use by management in the institutions points to their importance in the affairs of the institutions' management. The indigenous traditional design elements of different kente strips in different colours and adinkra symbols, which are used to underscore authority and core values (Agbo, 2006), have been employed to promote gown distinctions in Ghana. Elsewhere in the world, the triangular front-facing motifs of the gowns of Kenyatta University signify the belt buckle of the first president of Kenya, Jommo Kenyatta (Newton, 2014).

In a nutshell, the emblems or symbologies on the gowns must support the philosophy of the institution for which the gowns are meant. Grooves and Christianson (2004) have noted that some of the Commonwealth universities have included indigenous local designs in their academic gowns. For instance, Kenyatta University features a row of coloured triangles at the front, forming the panel signifying the belt buckle of the first Kenyan President, Jommo Kenyatta (Newton, 2014). Osei-Poku (1999) has argued that academic gowns ought to be designed to be in tune with the aims and philosophies of the institutions for which they were created. As Howard et al. (2019) have said, respondents preferred academic gown designs that featured the philosophies and traditions of academic institutions and their faculties. This study suggests that the Technical Universities and, by extension, the higher academic

institutions in Ghana and elsewhere must include their philosophies on their gowns so as to tell their true stories in terms of culture to the public (Eren, 2005) and support the visibility, distinctiveness, authenticity, transparency, and consistency of their institution's reputation (Watkins & Gonzenbach, 2013). According to the philosopher William James, any difference that is a difference should make a difference (Dill, 1982).

4.5 Objective 3: The Aesthetics of TU Academic Gown Designs

4.5.1 Overview of the section

This section dealt with the aesthetic denotations and connotations of the academic gowns by communicating the formal and emotional dimensions of the gowns. In this study, formalism places emphasis on the design qualities of the gown designs and the arrangement of the elements of the gown designs that elicit misconceptions, attitudes, ideas, or thoughts. The emotional aspect concerned itself with the degree to which the designs are linked to the institutions, the autonomy they have among their peers, and how their brand identities and images are portrayed. The implications of the designs, such as their political, social, economic, and emotional connections, are also highlighted. Participants with the same profile responded to the questions regarding the design aesthetics of the academic gowns as they had for the design histories and philosophies.

The arrangement of this section's write-up follows in this order: Accra Technical University, Cape Coast Technical University, Ho Technical University, Kumasi Technical University, Sunyani Technical University, Tamale Technical University, and Takoradi Technical University. Their corresponding gown images can be found in

the design history section of chapter four (i.e., research question 1), as they were used for the design philosophies.

4.5.2 Aesthetics of Accra Technical University's academic gown designs

In terms of the formalism of the gowns, the first HND gowns are largely black with woven kente fabric in the alternate colours of blue and yellow at the front, with the yellow strips running horizontally across the width of the kente strip. The fusion of the front-facing colours matches well with the apparel colour which is black. The colour of the hood linings are wine, white, yellow, and green, and these are determined by the faculty colour assigned to the gowns. All the hood lining colours match the black colour at the rear of the gowns, and the rhythm of the fullness under the yoke of the gowns and around the shoulders adds to the aesthetic appeal of the first gowns. The hoods with gold edgings or trims heighten the designs' appeal even more. Together with the black mortar board caps festooned with similar colour of tassels, the matching effect is great. The fundamental arrangement of the gowns in terms of the many components (such as the headwear, hood, robe, and gown facings) is acceptable, as are the colour combinations. The rhythm of the pleats or tucks on the gowns that provide the fullness effects, as well as the form of the dresses' sleeves, all highlight the stunning nature of the design aesthetics of the gowns. (Figure 20a). Except for the front face and the main apparel colour, which is blue, the second ATU HND gowns are comparable to the first, but unlike the first, the second gowns have stars (nsoroma) of gold colour incorporated onto the kente front face, on the blue background, and alternating with the gold horizontal strips, which adds to the gown's beauty (Figure 20 b). In terms of general layout, the third undergraduate HND gowns are also comparable to the institution's prior gowns. However, they feature a multi-

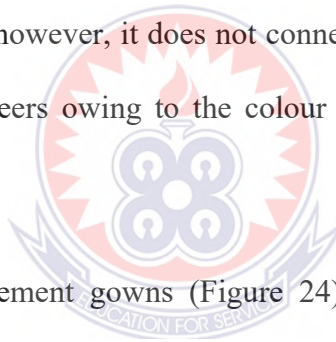
coloured and chainlike design of woven kente fabric on the front facing, with vertical borders on either side. These patterns are alternated with primarily red, blue, and yellow patterns that cover the entire length of the gown's front face. This gown, along with its facing kente patterns, has greatly increased the aesthetic appeal of the dresses, as the sensory dimension of the formal product quality, such as colour, harmony, texture, rhythm, balancing of the weave, and others, makes the gown more appealing than the preceding gowns (Figure 20 c).

The bachelor of technology gowns is in the colours of mauve and white, with mauve predominating, whereas the hood linings are white. The front face consists of mauve woven kente embellished with white woven star ("nsoroma") motifs alternating with woven "nkyinkyim" motifs covering the length from the chest level to the hem. The overall layout and design emphasis of the many sections of the gown, such as the hood and its lining, the front facing, the fullness effect, the cap, colour coordination, and the flowing character of the garment, contribute to the design's beauty. Nonetheless, except for the "nkyinkyim" motifs that link the gowns to the institution's philosophy, the colour codes do not and cannot identify and brand Accra Technical University (Figure 21).

The gowns for the convocation members who hold master's degrees are primarily black, with hood linings and front patterned designs being white in colour. The white interconnected rhomboidal designs embroiled on the front face of the gowns on the black background align with the white hood edgings. The rhythmic effect of the arrangement of the fullness on the gowns around the shoulders and below the yokes causes the garments to flow when in use. Altogether, the general layout of the arrangement of the various components of the gowns in terms of the headwear, the

hood, the front face, and the robe and the excellent colour coordination accentuate the aesthetics of the gowns, but this does not identify the brand and image of the university (Figure 22).

Unlike the undergraduate and master's gowns, the Ph.D. gowns are mostly wine with some black strands of velvet for the front panels, black satin linings for sleeves and hood and edgings, with a matching black velvet bonnet cap to match but no emblem. The gown's long, flowing form, as well as the colour combination of the various components of the design, including the design and shape of the sleeves, the cap, velvet front panels, the inclusion of the fullness and their rhythmic effects, the balance and proportion of the designs, the texture of the Fabric, and the finish, accentuate the gown's attractive power; however, it does not connect it to the institution and make it autonomous among its peers owing to the colour scheme and non-inclusion of the crest (Figure 23).



The middle-level management gowns (Figure 24) and senior management gowns (Figure 25) are wonderfully designed to represent Accra Technical University's sovereignty. The gowns basically feature the blue main apparels, the gold trims and facing panels, and the "nkyinkyim" symbolisms decorating the ceremonial dresses. These gowns have no hood. Nevertheless, the senior management gowns are more elaborately and exquisitely crafted and appear more imposing than those of the deans' gowns. Exemplarily, the senior management gowns' front facing panels end with a sailor's collar over the yoke of the gown, further enhancing the garment's aesthetic looks than the middle-level management gowns. Additionally, senior management gowns have strips of gold trim that border around the front facing panels and have additional strips of gold colour that identify the authority of the wearer, unlike the

middle management gowns. In both cases (Figures 24 & 25), the colour combination and overall layout of the gowns make them (the wearers) appear more spectacular and grand at Accra Technical University academic ceremonies.

In terms of emotionalism, that is, the gowns ability to express the institution's brand identity and brand image, ATU HND gowns fairly identify with the institution's existence through the use of the colours, blue and yellow and the "nkyinkyim" motifs on the gowns, but the red on the gown facing of the third gown is not part of the ATU. The Bachelor of Technology gowns only connect with the University through the "nkyimkyim" motifs, whereas the convocation gowns have no link with the institution. Regardless of either the lack of or inadequate tool for expressing Accra Technical University's Branding Statements characteristic of the previous designs, those of the academic deans and senior management, presents the opposite situation. The colour scheme used and the incorporation of the Accra Technical University's insignia in the management gown designs genuinely bear the Accra Technical University identity and thus have greater branding probability.

Politically, the gowns have been designed according to the status of the wearer. The meticulousness of the design elaborations and the authority of the wearer. Hence, while the HND gowns at Accra Technical University are less elaborate, the management gowns are exquisitely produced to highlight the image of the institution. The doctorate convocation gowns are also meticulously crafted with more details than the students' and other convocation gowns. For instance, the management gowns essentially have the nkyinkyim and the logos displayed on the front panels of the gowns. The senior management gowns feature additional elements, such as trims and edgings, to emphasise their authority and add aesthetics. The design distinctions are

also shown in terms of colour codes, fabric quality and type, design details, and the inclusion of other insignia within a particular institution. Even among the senior management gowns, gold stripe bars on the sleeves are used to underscore the authority of the officers. The registrar has one, Pro VC, two, VC, three, and Council person, four bars. In most cases, Accra Technical University uses dacron, and in some cases, wollen and synthetics, for the fabrics of the gowns for HND, B. Tech., and convocation. Fabrics for the management gowns are of higher quality and more expensive.

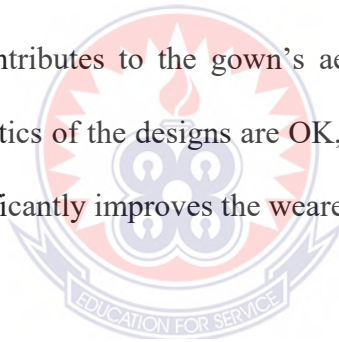
Socioculturally, society is attracted by ATU gowns during academic ceremonies. The gown represents the society and the environment within which the institution is situated through the colours, fabrics, designs, and cultural iconographies that may be found in the logo designs on the gowns, for instance, the management gowns.

Economically, the institution uses its academic gowns to generate income by renting them out to other institutions that do not have them. Student graduands also pay for using the gowns. The purchase of fabrics for gown manufacture also benefits those who produce the gowns financially, which in effect can boost the textile and fashion industries locally and internationally.

Emotionally, many ATU gown wearers, especially first-timers, feel highly elated and pompous when they wear the academic gowns. It is, however, not surprising that the gown is referred to as academic "pomposity". When students see people wearing the gowns, it becomes a source of inspiration and motivation for them. The gowns are used to take photographs as souvenirs. Wearers feel fulfilled and high-spirited in the gowns.

4.5.3 The aesthetics of the Cape Coast Technical University academic gown designs

In terms of the formalism, that is, the sensory dimensions of the gowns, the general design of the HND gown's numerous components, such as the headpiece, sleeve type, and front-facing hood, including the robe, depicts an undergraduate gown, which is normally made to be simple. The pattern of the front face and hood lining adds additional colours to the blue-black garment, improving its aesthetic appeal. The addition of fullness in the form of tucks or gathers on the robes and fasteners at the upper portion of the sleeve's base adds further beauty to the design. The texture of the gabardine fabric also contributes to the gown's aesthetic appearance when ironed. Generally, the characteristics of the designs are OK, and when the gown is worn over an undergarment, it significantly improves the wearer's appearance. (Figure 28 top left & middle).



Aesthetically, the present management gowns are stunning in their overall appearance; they contain all of the colours of the university, and the colours are nicely coordinated to reflect the wearers' identities. Per the logo, the Cape Coast Technical University's official colours do not include black, but the gear icon is black. That could be why the headpiece is black. The blue brocade fabric, combined with the velvet headpiece and the inverted T-style sleeves featuring the gold strip, makes the gown appropriate. The placement of the logo at the back of the gown (on the yoke) and the expansion of the front facing to the end over the yoke of the gown, enclosing the logo, improve the gown's overall aesthetic look.

Expressively, the front-facing graphics in the patterns of connected rectangles known as "tromomowere" (bull's hoof) motifs in the colours of the university are one-of-a-kind and coordinate with the colours of the hood linings (Figure 28 top left & middle). The "tromomowere" is a kente motif signifying the gown's Ghanaian identity, while the gown's colour codes signify the institution's and school's (faculty) identity. The blue colour of the gown communicates the institution's environmental link with the sea and connects the university to the Cape Coast neighbourhood, but as a lining on the hood, it associates wearers with the School of Business. The yellow represents the land's abundant riches and, as a hoodlining, connects the gown to the school of applied science, while the colour red signifies the engineering and liberal arts subjects learned at the university and, as used for the hoodlining, signifies the wearer's association with the school of engineering. Though the HND gown's overall style is appealing, the absence of the institution's logo prevents it from completely reflecting the brand identity and attendant image expected of an institution.

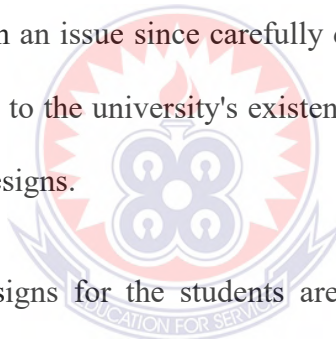
This first management gown (Figure 30) is a wine-dominated garbadine garment with a yellow satin front face and sleeve lining, a black Tudor bonnet cap, and a yellow tassel to match. It has no hood and no logo. The formalistic characteristics of the gown as regards the colour code, shape, proportion, size, fabric texture, and finishings of the various elements of the gown are on point. In terms of the gown's communicative power, the wine, though not aligned with the official colours of the university generally, represents passion, energy, strength, and love at a very deep level. Whereas the yellow denotes the land's abundant riches, the black denotes strength, energy, confidence, and maturation. The black, on the other hand, denotes aging, implying strength, energy, and maturation. This means that when the

ceremonial gown is worn, it communicates the institution's identity with the Cape Coast neighbourhood, the wearer's willingness to help train students to acquire knowledge and skills and disseminate them to the public through their products for the development of society. On the whole, it does not reflect the concept and essential mandate of the Cape Coast Technical University because of the colour wine and the lack of a logo. Even though the yellow stripes and lining complement the gown's style, they do not qualify it for managerial use. In terms of management attire, it is simply too plain. In general, the construction is adequate, but the satin used for the frontage is subpar. The pointed sleeve shape boosts the gown's visual appeal, but the gabardine fabric is a detriment (Figure 30).

For the current ceremonial gowns for management (Figure 31), they are mainly blue, with red and yellow stripes covering the full length of the gown's front face and ending at the back to form a sailor's (flap) collar. The gown also features red and yellow stripes around the logo on the yoke to enhance the design's aesthetic appeal. The gowns are carefully crafted to reflect the environment in which the university resides, its abundant resources, the light that the institution brings to society, the authority of the respective wearers in the university, and, most importantly, the institution's distinctiveness through the use of the institution's colour scheme, the stripes on the lower part of the sleeves, and the emblems. As has been outlined, the colours blue, yellow, red, and black, in addition to the iconographies in the logo, serve as the underlying identity of the institution. Essentially, the blue colour of the gown communicates the institution's environmental link with the sea and connects the university to the Cape Coast neighbourhood. The colour yellow represents the land's abundant riches, while the colour red signifies the engineering and liberal arts subjects

learned at the university. The torch gives a source of light to the student through the programs available, and the learner in turn imparts that knowledge to society. The university's slogan, "Nkyerekyere na nyimdzee ma nyansa," emphasises the value of education in the development of society. Management positions are differentiated on the gowns through the use of the stripes on the lower sides of the gowns. The more strips, the higher the authority. The message being communicated to onlookers through the dresses is clear, thus making their expressive characteristics fit for institutional branding and imaging (Figure 30).

But the aesthetic connotations of the various elements of the gowns have not been documented, and neither have they been told. The lack of documentation on the gowns, however, has been an issue since carefully documented records can make the gown designs meaningful to the university's existence as users and the general public read and appreciate the designs.



Politically, the gown designs for the students are simple, using less quantity and quality garbardine fabrics as opposed to the management gowns, which are more elaborate and exquisitely sewn in order to express the status characteristics of the wearers. In effect, between the students and management, the differences lie in the fabric quality, style, and decorations on the gowns. Among the management robes (Figure 31), the number of stripes on the wearer's sleeves serves as the point of differentiation. The greater the number of strips, the greater the wearer's authority. The Council Chair person has three (3) stripes, the Vice Chancellor has two (2), and the Registrar has one (1). The Pro-Vice Chancellor has no power because the office deputises the Vice Chancellor and hence cannot make key decisions without the VC's approval. On the authority of the Pro-Vice Chancellor, one management member,

CCTUP5, explained that "most of the committees he chairs are subcommittees of the academic board meetings. The Pro-VC, per our statute, acts in the absence of the VC, so the Pro-VC's gown there's nothing".

Socio-culturally, colours distinguish one school or faculty from the others within the university, even though the fabric colours are the same among the student gowns. Both gowns connect to the Cape Coast community through the institution's designated colours such as blue, yellow, red, and black. As already indicated by the logo (Figure 59), blue represents the sea, while yellow represents the land's abundant riches. The red reflects engineering and liberal arts subjects learned at the university, and the black signifies the black race. These gowns become objects of public attention, and during academic ceremonies like the congregation, people come to witness the congregants in their respective gowns and celebrate their achievements.

The gowns' economic implication is that of using them as a source of income generation for the institution. Normally, CCTU gowns are hired by other sister institutions that need them, and the institution's own graduands also pay user fees to the institution during graduation ceremonies. Through the use of the gowns, employment is created by the fashion and textile industries both locally and abroad. During matriculation and graduation ceremonies, photographers and vendors also benefit economically from the gowns through their activities.

Emotionally, graduands are highly elated in their gowns because that marks their symbol of achievement, and every graduand would want to have a photograph taken while in their gowns for future reference. Graduands who are unable to wear the gowns become highly disappointed because they believe that without the gown, the

ceremonial euphoria will not be felt. The gown also provides a source of motivation for would-be graduands to finish their projects on time so as to also wear them. It is also a source of satisfaction and pride for the graduands, having completed their long years of schooling, characterised by the difficulties and disappointments that go with academic work. They feel that wearing the gowns reflects the sacrifices they made during that time.

4.5.4 Aesthetics of Ho Technical University academic gowns

As stated earlier, the first gowns created for the bachelor of technology graduands was a hoodless article of clothing that is mostly blue-black in colour and has front-facing stripes of colour designated for the faculties. These front-facing colours ranging from red, mauve, green, and blue, match well with the main blue-black apparel. The construction of the components of the gown, such as the hood, cap, sleeve, front face, and robe, and the addition of the fullness effects around the yoke have been created to closely mimic that of an undergraduate gown (Figure 33). The colour coordination of the gown, the size, and its flowing nature due to the inclusion of the pleats, as well as the hape and proportion of the gown elements and the texture of the design's fabric, add more aesthetic features to the gown. The logo may have added extra aesthetic elements to make it more appealing, even though the colour combination is decent. Unlike the initial gown, the current dresses include an accompanying hood that contributes to the visual characteristics of the garment. The current designs (Figure 35), like the first, are recognised and distinguished by the different faculty colours. The faculty colours can be found in the gown's hood lining, tassel, cap base, and front facing. This gown has been decorated to make it more visually appealing. The addition of fullness effects in the shape of tucks and pleats on the sleeves and the yoke

enhances the overall elegance of the gown design. However, the omission of the logo, which is a representation of the institution's philosophy, values, and fundamental mandates, does not complete the brand identity's reflection in the dresses (Figure 35). However, the design of the hood and its lining, as well as the cap, need to be improved a bit in order to improve the gown's aesthetic effect.

Concerning the management ceremonial gowns, the first management gown is mostly made of red brocade fabric, with strips of blue satin fabric used as the gown's front facing and finishing at the rear, with logos imprinted on both the front and the back for easy recognition and beauty. The mortar board, with its yellow tassel, as well as the tee-inverted sleeves and their gold trims, forming the edgings and the bars, bring colour to the design. The exquisite nature of the fabric and the overall design of the robe provide a level of opulence to the garment and the wearer (see figure 36, left).

The second management gown, on the other hand, is a step up from the first. This one incorporates the institution's overall colour scheme as well as the logo. The gown's basic attire is dominated by a red cotton fabric, while the sleeves are blue cotton fabric combined with red to match. The sleeves are bell-shaped, and the blue velvet strips with white piping attached signifies the wearer's authority. Blue velvet panels on the front are piped with white from the hem of the dress to the back to form a flap collar. This gown also contains logos on the front that represent the institution's ideology and primary mandate. The mortar board cap with a red tassel completes the ensemble. The arrangement of the colours of the gown's many characteristics, as well as the configurations of fullness, make it appropriate for the wearer's authority. Touching the gown arouses the observer's emotional feelings due to the quality of the fabrics and the appearance of the garment. Overall, the design embodies Ho Technical

University's concept and asserts its independence among its contemporaries (Figure 36, middle).

The present management robe, unlike the previous ceremonial gowns, lacks a logo but bears the university's colours. Once again, the blending of the colours enhances the beauty of the gown. The gown is made of blue brocade fabric with red and white stripes at the front that work their way into the upper back of the gown over the yoke. Red for the sleeve stripes and tassel. To improve the look, the inverted t-sleeves have white trimming. The addition of Tudor bonnet headgear enhances the beauty of the garment. This gown has been meticulously and lavishly constructed to communicate to observers Ho Technical University's identity and uniqueness in terms of its basic ideals. Regardless, while the present gowns appear more majestic and expressive than the first, their linguistic tools are limited due to the absence of the crest. Because the gowns provide a large advertising opportunity to highlight the universities and their members' brand identities, including the crest would be suitable (Figure 36, right). Nonetheless, the light blue and yellow colours contribute to the gown's aesthetic qualities but do not contribute to transmitting the essence of Ho Technical University.

On the students' gowns, the blue colour, according to the logo's interpretation, denotes the bravery and dedication of the wearer, and the red, which is for the faculty of arts and design's front face, signifies the fire that is being burned by the institution in an attempt to enlighten society. The mauve, which is earmarked for the faculty of applied sciences and technology gown's front face, signifies innovation, inspiration, care, and intuition. It has the effect of uplifting, supporting, motivating, and intriguing. Green, which is associated with the faculty of engineering, signifies growth, fertility, renewal, and good health. On the management gowns, the blue

colour according to the logo's interpretation, denotes the bravery and dedication of the management, and the red signifies the fire that is being burned by the institution in an attempt to enlighten society. White denotes purity or innocence, light, goodness, illumination, and brilliance, which guide management in the discharge of their duties.

Politically, like the other institutions' gowns, this university's gown designs have been crafted in accordance with the wearers' status. In effect, the students' gowns are less elaborate, while those of management have more design details. Between the students and management, the differences lie in the fabric quality, style, and decorations on the gowns. Across the management divide, the distinctions are exhibited in the number of strips on the sleeves of the wearer. The registrar has one bar, the pro-vice chancellor has two, the vice chancellor has three, and the council chair has four bars.

Socioculturally, the motto of the institution found in the logo, "Adanu Nazu Kakali," which means that the information we gain should help society, also links the ceremonial gowns to the Ho society. These gowns become objects of public attention, and during academic ceremonies like the congregation, people come to witness the congregants in their respective gowns and celebrate their achievements. Normally, such ceremonies are characterised by pomp and pageantry, with the graduands' relatives and other well-wishers trooping the ceremonial grounds to identify with the wearers amidst parties and traditional music.

Economically, the gown provides direct and indirect jobs to society. The students' gowns provide a means of income generation for the school as they are rented out to interested institutions. During the academic celebrations, food vendors and other

sellers, including photographers, make money out of the occasion. As food vendors sell food to hungry celebrants, photographers will be snapping pictures of the celebrants in their gowns, either separately or in the company of their friends and relatives. It also creates jobs for gown designers, producers, and suppliers, boosting the fashion and textile industries.

Emotionally, graduands are highly elated in their gowns because that marks their symbol of achievement, and every graduand would want to have a photograph taken while in their gowns as a souvenir. Graduands who are unable to wear the gowns become highly disappointed. The gown also provides a source of motivation for would-be graduands to finish their projects on time so as to also wear them. It is also a source of satisfaction and pride for the graduands to have completed their long years of schooling.

4.4.5 Aesthetics of Kumasi Technical University academic gowns

As previously stated, the first HND gowns (Figure 38 left) contain blue-black apparel, a hood shell, and a headpiece with a yellow orca for the hood lining and tassel to match, thus connecting to the university's colours. The hood includes blue trimming to complement the gown's attractiveness. The multicoloured front-face kente patterns, which denote the institution's link to the Asante culture, mix very beautifully with the gown's colour scheme. The second gown (Figure 38 right) is identical to the first as regards the overall design, with the only difference being the front panels of the gown. The present gowns in Figure 38, middle, are similar to those described above, except that the main apparel colour is darker and the front facings are made of plain yellow orca fabric. The "adwinasa" kente pattern on the gown means "skills have been

exhausted" and signifies royalty, creative ingenuity, elegance, excellence, wealth, perfection, and superior craftsmanship. The second has an "oyokoman" background and is hence called "oyokoman" kente. It is believed that this was the first colourful kente design made and was named by Otumfuo (the Asante King at the time). For the colours on the gowns, the blue colour signifies technology, intelligence, unity, and confidence. Yellow, red, and orange denote vibrancy, creativity, enlightenment, and brilliance. Gold represents wealth, prosperity, value, and tradition. The shape of the gown's hood and sleeves, as well as the fullness arranged on the gown, together with the overall quality of the entire apparel in terms of the colour coordination, texture, proportionality, and fabric, are perfect. The attractiveness of the garment arouses emotional traits in both the wearer and the viewer. Nonetheless, because the students' gowns do not feature the crest of the institution, their ability to enhance the brand identity and image of the institution will be limited since the inclusion of the crest connects the gowns to the institution and enables it to emphasise their autonomy among their sister institutions locally and internationally.

The Master of Technology (M.Tech.) gowns (Figure 39) have also been designed in the colours of sea blue and trimmed with yellow at the cap base, front faced and hoodlined with yellow satin fabric, and with the inclusion of both the graduate school's and institution's logos on the yellow background at the front face to match. The overall layout of the various elements making up the gown has been designed to be proportional, balanced, and symmetrical, and the fabric texture and the long, flowing nature of the design facilitate the aesthetic appeal of the gown. With the use of the two logos and the institutional colours on the gowns, the communicative power

of the design is very great, accentuating the design's ability to market the school and also tell the undistorted identity of the wearer to observers.

The first management gown (Figure 40) is primarily red wine in colour with a blue front facing and stripes on the sleeves and a yellow piping and hood lining, with the institution's logo embossed on the front facing of the gown to match. The material for the main apparel is cotton, and the front panel is blue velvet, including that of the stripes on the sleeves. These colours represent the official colours of the institution, and with the embossment of the logo, the gown carries the identity of the university. The main object of distinction, indicating the authority of the wearer, lies in the number of bars on the sleeves. The chair of the council (CC) has four, the vice chancellor (VC) has three, the pro-vice chancellor has two, and the registrar has one. The headwear is the Tudor bonnet type, made of blue velvet with a yellow tassel. The type of fabric and the general design of the gowns indicate the authority of the management members of the institution. The Vice Chancellor's investiture gown (Figure 39 middle) is basically made of the same fabric types and colours as the first management gowns, but there are differences in the gown layout and the components of the gown. Essentially, the gown sleeve is a bell shape with a slit edged with yellow that houses the three bars. The design of the sleeve allows for free movement of the hand. The front panel is a velvet strip with yellow trim and frog bottoms in yellow as a fastener. The hood is the collar type known as the "sailor's collar," with a V-neck line at the front. Unlike the first gown, the headwear is a red velvet bonnet with blue trim around the base of the cap and a yellow tassel to match (Figure 40, middle & right). This gown has no logo, but the colour scheme employed exhibits the designated colours and their symbolism ascribed to the university as enshrined in the

logo (Figure 62). Unlike the previous gowns, the present management gowns (Figure 41) are constructed of regenerated fabric (brocade) cloth and trimmed in the university's colours of red, blue, and yellow, with the logo placed on the front. Apart from that, the gown's general style is identical to that of the investiture gown, but the new dresses are lighter than the previous ones owing to the fabric used. The Registrar wears a hood in the form of a drape, which signifies the office's administrative responsibility as the heart of the institution, whereas the other two officers wear sailor's collars (Figure 41 right). On the contrary, the Chancellor and the Council Chairperson use the flap collar, which is worked from the hem of the front face and onto the yoke. With the colour scheme and logo depicting the identity of the institution, this gown, just like the first management gowns, can sell the ideology of Kumasi Technical University, unlike the student gowns.

The quality of the cloth used, the size and shape of the various gown components, the design elaborations and decorations, and other extra aspects all serve as visual representations of the politics ingrained in the various levels of gown designs. The student gowns at this institution, like those at others, feature fewer decorative and design elements. The primary colours of the main garments are where the HND and Master of Technology gowns diverge most. While the latter's cloth is a light blue, the former's is a deep blue. The latter's mortarboard cap has a base bordered with yellow, matching the hood's edging. The graduate school's and the institution's logos are both on the front of the latter, but not the former. In comparison to the student gowns, the management robes are more beautifully and painstakingly constructed to reflect their ceremonial and administrative authority. The sleeve bars have traditionally served as the primary point of difference for top management robes. The Vice Chancellor, Pro-

Vice Chancellor, and Registrar each have strips of bars on their sleeves, while the Chancellor has five, the Council Chairperson has four, the Vice Chancellor has three, the Pro-Vice Chancellor has two, and the Registrar has one.

Regarding the sociocultural effects of the robes, the institution's logo has the Asante stool and the adinkra symbolism, connecting it to Asante customs and culture as well as the Kumasi region. The gold colour also well symbolises wealth, prosperity, value, and tradition. Additionally, the two HND dresses' kente motifs connect the designs to the culture of the Asantes. People gather to see the congregants in their individual gowns and applaud them for their accomplishments during academic occasions like the congregation because these gowns attract the public's attention. Such ceremonies are typically marked by pomp and splendor, with the graduates' family members and other well-wishers descending into the ceremonial grounds to identify with the wearers amid celebrations and traditional music.

Economically, the gown benefits society by creating both direct and indirect jobs. As they are rented to interested schools, the student gowns serve as a source of revenue for the school. Additionally, it expands the fashion and textile sectors in the nation by providing jobs for designers, manufacturers, and suppliers of dresses. On the day of the celebrations, when food vendors and other sellers gain money, indirect temporary jobs are generated. Photographers can get work by taking images of the celebrants wearing their gowns, either alone or with friends and family. Photographers can also make money by doing this.

Graduands are quite happy to be wearing their gowns since they represent their achievement, and every graduate wants a photo of themselves in those robes as a

keepsake. Graduates who cannot wear their robes are really disappointed. The gown serves as a source of inspiration for aspiring graduates to complete their projects on time in order to wear them as well. The graduates find fulfillment and pleasure in having finished their arduous years of education and training.

4.5.6 Aesthetics of Sunyani Technical University's academic gown design

The initial Sunyani Technical University first management gowns were mostly red, with yellow front facings, hood linings, and tassels, and a black velvet cap to match. The gown on the left in Figure 44 has no front facing panel, but the rest do. The various components of the gowns have been craftily designed and produced to depict the higher offices of management, taking into consideration the aesthetic qualities of clothing such as line, symmetry, colour, fabric quality, size and shape, and finishing. The gowns appear more exquisitely sewn due to the incorporation of the yellow front facings with the "Nyansapow" symbol, which translates as the wisdom knot, embossed on them. This symbol connects the gowns to their Ghanaian identity. From the interpretation of the institution's crest, the colour red signifies the brave nature of the people of Sunyani, the courage of the university, and the acceptance of all kinds of people who are ready to learn from the university. The black colour signifies the definite core values of the university, the beauty of the black heritage, the respect for authority and leadership, and also the true culture of our homeland, Ghana. The yellow, though not part of the designated colours generally represents holiness, royalty, wealth, and beauty and may link the institution to the wealth of the Bonno Region. Though there is no logo on the gown to associate it with the university, the red and black colours on the gowns reflect the institution's ideology in part.

The contemporary management robes for the university (Figure 45), which are predominantly green with gold edging and stripes, as well as the ornamentation at the front consisting of kente pattern arrangements and logos, as well as the adinkra symbols on the lower sleeves, are generally appealing. On the back of the gowns over the yoke are flap collars edged with yellow twisted cords, on which the institution's logos are stuck. The dresses are finely created and crafted to reflect the institution's philosophy, core values, and traditions, as well as Ghana's and the Bono Region's rich cultural heritage. The current management ceremonial gowns, unlike the first, feature no hood. The general layout of the gowns and their accompanying features have been crafted in accordance with the sensory dimensions of the formal qualities of an apparel product, namely: colour, texture, line, form, rhythm, balance, proportion, and others. The tee-inverted sleeve design on the dresses signifies academic freedom and fairness in the institution. The gowns showcase a customised kente patterns sandwiched between two strands of red strips forming the front facings. The upper red strips house the university's logo. The kente strands have two motifs, "mpuanum" and "nsatsea," and they are together called "Obaakofo mmu man," which literally means "one person cannot rule a nation," denoting the essence of making collective decisions for success. This design used to be called the "Fathia fata Nkrumah," which was changed to "Obaakofo mmu man" after the overthrow of President Nkrumah in 1966. It contains the red, yellow, and green "nsatea" motifs alternating with the yellow "mpuanum" motifs on the black background. Its use in Sunyani Technical University gowns alludes to the all-encompassing nature of its management. These gowns, with the embossment of the logo (Figure 63), reflect the university's very existence and, when worn, carry the identity of the institution, the environment, and the person, thus exerting Sunyani Technical University's authority among its peers (Figure 45).

Unlike the management gowns, the Ph.D. gowns (Figure 46) are predominantly red, with green and yellow accents for contrast and beauty. Overall, the gown is made in the colours of the university, with the exception of the yellow, and to fit the Ph.D. status with the inclusion of three bars on the sleeve and a Tudor bonnet headpiece, which are commonly worn by Ph.D. holders in most academic institutions across the world. The Ph.D. robes, like the management gowns, are carefully designed to represent the uniqueness of the institution's Bono environment while also reflecting the wearer's identity. On the yoke of the gown is situated the institution's logo, which adds to the multicoloured hood lining with yellow edging to match. The yellow trim at the base of the pointed sleeves, together with the gold sleeve bars, accentuate the aesthetic appeal of the gowns. The overall construction of the apparel's components, such as the hat, hood, pointed sleeve, and front facing, satisfy the sensory dimensions of the formal qualities of an apparel product. However, the tassel needs to be altered to improve the aesthetic appeal (Figure 46).

In contrast to the management and Ph.D. gowns, the undergraduate gowns are made of black with green and white accents for the front face and white for the hood linings. This gown, like the undergraduate gowns around the world, is simply constructed to meet the status of bachelor graduands at Sunyani Technical University, with a mortar board cap and bell-shaped sleeves. The overall design is okay, with the colour scheme reflecting the institution's colours. Together with the exhibition of the logo at the front facing, this gown represents the identity of the Bono Region, the institution, and the identity of the wearer, even though the wearer's discipline is not revealed (Figure 47).

According to the logo's explanation, the green colour signifies the abundance of food in the Bono Region, the healthy nature of the environment, the readiness to diversify in growth and strength, as well as the coolness of the environment. The black colour signifies the definite core values of the university, the beauty of the black heritage, the respect for authority and leadership, and also the true culture of our homeland, Ghana. The red colour signifies the brave nature of the people of Sunyani, the courage of the university, and the acceptance of all kinds of people who are ready to learn from the university. White signifies respect and acknowledgment of God as the institution's supreme authority, the unity of the university fraternity, and the steadfastness in discipline and motivation. The red gear represents the technical values and the academic movement of the university from one stage to another. The red diagonal lines represent the new day and freshness of ideas and knowledge at the university, as well as the glory and honor of the university. The black adinkra symbol known as "nea onnim no sua ohunu which literally means "through education, an ignorant person can learn to know," represents the core mandate of the university in teaching people to know what they are ready to learn, including the culture and traditional linkage of the university to our mother land, while the green arc represents the outstanding performance of the university in its area of academics and its core values. The yellow and gold on the gowns are alien to the university's designated colours, but generally, yellow represents holiness, royalty, wealth, and beauty, whereas gold also signifies wealth, royalty, and prestige. Notwithstanding, the colour gold, which plays an important role in the gown's aesthetic look, and is present solely for the purpose of colour contrast, adds to the gown's beauty. Extrinsically, the designs' appearances connect to Sunyani Technical University's philosophy, exert autonomy among their other Technical University counterparts, and have greater brand identity and image.

Just as in other higher educational institutions, Sunyani Technical University gowns have been created to satisfy the status of the wearers. The design distinctions are exhibited through the fabric quality, shape, design elaborations, and other decorations. For instance, while the bachelor gowns are simply designed, the convocation members' gowns, which are for professors and doctorate degree holders, are meticulously designed to depict their status through the use of the Tudor bonnet cap, the linings, and the three sleeve bars. The management gowns, on the other hand, are more detailed and exquisitely crafted than the doctorate gowns. For the management members, the basic item of differentiation is the quantity of the sleeve strips. The Registrar has one, the Pro-Vice Chancellor has two, the Vice Chancellor has three, and the Council Chair has four sleeve bars. Whereas the bachelor was created with garbadine fabric, the doctorate and the management gowns feature travera fabrics.

The sociocultural implications of the gowns emanate from the institution's linkage with its community. Exemplarily, the institution's designated colours, the adinkra symbols, and the kente patterns connect to the Ghanaian and Bonno identities. These gowns become objects of attention to the public, and during academic ceremonies like the congregation, people come to witness the congregants in their respective gowns and celebrate them due to their achievements. Normally such ceremonies are characterised by pomp and pageantry, with the graduands relatives and other well wishers trooping the ceremonial grounds to identify with the wearers amidst parties and traditional music.

Economically, the gown provides direct and indirect jobs to the society. The students' gowns provide a means of income generation to the school as they are rented out to interested institutions. It also creates jobs for gown designers, producers and suppliers

thus boosting the fashion and the textile industries in the country. Indirect temporal jobs are created during the day of the celebrations, when food vendors and other sellers make money. Photographers also make money by snapping pictures of the celebrants in their gowns either separately or in the company of their friends and relatives and that also provide employment for the photographers.

Graduating students at Sunyani Technical University experience intense emotional joy as they don their caps and gowns, which serve as a symbol of their accomplishment. Each graduate desires a memento photo of themselves in their cap and gown. Graduates who can not wear their robes are really disappointed. The gown serves as a source of inspiration for aspiring graduates to complete their projects on time in order to wear them as well. The graduates find satisfaction and delight in having finished their rigorous years of education and training.

4.5.7 The design aesthetics of the Tamale Technical University academic gowns

The first Tamale Technical University academic gowns' components are mainly blue-black, with a few strands of a fusion of white and blue (or indigo) woven fabric inserted in the design of the front facing. The front-facing fabric is a locally made woven fabric produced in the Northern Region of Ghana, and it is known as "tani". Together with the blue-black gabardine fabric and blue hood lining, the "tani" strands on either side of the gown's opening, with a matching logo adornment on the front, heighten the aesthetic characteristics of the first HND gowns (Figure 48). Moreover, the numerous pleats on the gown give it a fullness effect, such that the design can accommodate different figure sizes. The hood design adorned with blue hood lining, the mortarboard cap decorated with the blue tassel dangling down from the midpoint

of the top of the cap, the long, flowing nature of the gown, as well as its overall style, are appealing. The designs satisfy the sensory dimensions of the formal quality of apparel. Fundamentally, the "tani" strands on the front of the gown and the institution's logo convey a message about the Northern identity and existence of the institution through the design to observers, though the litany of blue colours does not support the university's philosophy.

The current undergraduate gown (Figure 53) is primarily green for the main garments, the hat, and the hood shell, with yellow combined with green for the hood lining. The tassel, front panels, and some elements of the hood are yellow. The sleeves are bell-shaped like the first gown, with the upper part pleated and attached with a rope to a button to display parts of the wearer's hand, adding to the gown's charm when worn. The hood design is the CNA type, and this adds beauty to the rear of the gown. The overall design of the varied elements of the gown, as well as its flowing character as a result of the fullness introduced in the gown's construction, make it aesthetically beautiful. The colour scheme is consistent with the institution's official colours, and colour coordination, including the iconographic representation of the institution's culture (i.e., the logo) on the front face, sends a strong message about Tamale Technical University as an institution of higher learning (Figure 53).

For the gowns for the convocation members who hold masters' degree qualifications (Figure 52), blue is used for the main garment, the hood shell, and the hat, while green is used for the front facing, which houses the logo and the tassel. To match the gown designs, the hood lining is made of yellow and green fabrics. The sensory dimensions of the formal qualities of the gowns, such as the line, rhythm, balance, colour, fabric texture, and others characterising the design of the pleats and tucks on the gowns, as

well as the overall design of the various elements of the apparel, increase the aesthetic touch of the design. Despite the fact that blue is not one of the brand colours of the university, the inclusion of the logo, the green for the gown's front panel and tassel, and the yellow for the hood lining provide a brand identity and brand image for the university since the green and yellow are part of the designated colours of the university.

The convocation gowns for professors and Ph.D. holders are seen in Figure 51. The major colours of the gown designs are green and red, with the green making up the main garment and hood shell, as well as the string attached to the cap, while the red formed the headpiece, the bars on the sleeves, and the front panels where the university's logo is placed. The satin hood lining is a chevron of red and green, and this category of dress, like the management gowns, is precisely made to befit the wearers' status while also displaying what Tamale Technical University is all about through the incorporation of the emblem. The cap is a Tudor bonnet type, and together with the front panel and the sleeve bars, they are all made from velvet fabric. The gown's whole design, including the fabric texture and sewing, has a significant aesthetic appeal. The physical observation and touch of the gown designs elicit some underlying emotional sensations that contribute to the designs' aesthetic repercussions. The presence of the logos on the gown situated on the front panel with the accompanying designated colours of the university is capable of transmitting Tamale Technical University's brand identity and its resulting brand image to the public.

Except for a few colour and design changes, the general makeup of the management gowns shown in Figure 50 is nearly identical. The gown for the Council Chairperson is predominantly green, with black velvet front panels, Tudor bonnets, and sleeve

stripes. Green and yellow satin fabrics are used for the hood linings, with yellow braided cords used as piping at the inner ends of the panels and yellow and green braided cords used for the extreme ends of the panels, as well as the braided cords attached to the bonnet as a tassel hanging down the cap of the Council Chairperson's gown (Figure 50, first from left). The Vice Chancellor's (VC) gown comes next, and its distinguishing elements are the mauve braided cord at the extreme ends of the front facing (Figure 50, 2nd) and an additional mauve satin hood lining that contrasts with the yellow at the area of the hood that comes around the wearer's neck. Figure 50, 3rd image, shows the Pro-Vice Chancellor's (Pro-VC) gown, which is essentially identical to the VC's gown except for the braided cords used as piping and edgings, which are white, red, and blue for the former. The registrar's gown (Figure 50, 4th) on the other hand, features multi-coloured braided cords for the piping and edgings in red, yellow, and green. Furthermore, whereas the VC and Pro-VC (Figure 50, 6th & 7th) have mauve satin hues added to the yellow and green satin hood linings for the Council Chair's hood lining (Figure 50, 5th), the Registrar's is red (Figure 49, 8th) and this, along with yellow, shows at the front section of the hood when worn. The design of the hoods at the rear of the gowns reveals the braided cords serving as the edgings around the gowns' necks and the fullness effect emanating from the construction of the tucks and pleats on the gowns. The overall design of the many components of the garments has been created to enhance their attractive qualities in consideration of design principles such as line, balance, rhythm, proportion, colour, texture of fabric, size, shape, and finishing. Physically observing and touching the gown designs elicits some underlying emotional sensations that contribute to the designs' aesthetic repercussions as a result of the use of the travera fabrics. The gowns, with the

exception of the mauve, reflect the identity of Tamale Technical University and, in effect, elicit its brand image in the public.

On the gowns, the blue depicts the sky and represents harmony, peace, and good fortune, whereas the white represents healing and purity. The mauve on the senior management ceremonial dresses symbolise inspiration, innovation, care, and intuition. It uplifts, supports, motivates, and intrigues. The colour black is associated with aging and denotes vigour, vitality, and maturity. The yellow represents the richness that exists beneath the surface of the world. It is linked to happiness, sunshine, and the tropics. It is a symbol of zeal, joy, creativity, determination, and stimulation. Green signifies the university's ability to take advantage of the environment (vegetation). The colour red represents seriousness as well as a burning desire or sense for success. The university's potential to brighten society via knowledge and expertise is symbolised by this symbol. Apart from the colours all symbols, like the book, represent a repository of information. The mechanical gear represents technological advancement, interdependence, and the individual's function in collaboration with labour and management for the greater good of mankind. The spanner represents hands-on training and skill development at a university that is focused on technology. The torch of flame symbolises how knowledge gained brightens society and demonstrates how the university is leading the way in the North in technical education. The motto "Bagsim mini Nuuni Tuma," which means "knowledge and talent," summarises the philosophy of the institution. In a nutshell, the institution's gowns carry its philosophy and identity as a result of the incorporation of the logo (Figure 64) in the design, thereby facilitating the brand's identity and image.

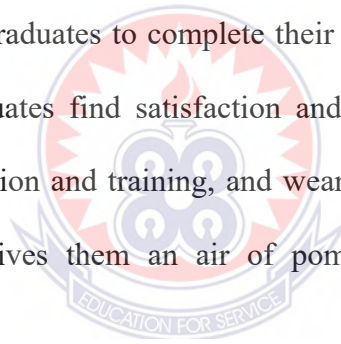
Like the other technical universities' gown designs, these designs were crafted considering the political connotations of the wearers. For instance, the students' gowns are less elaborate than the Ph.D. and management gown designs. Tamale Technical University gown differentials have been exhibited through colour, fabric quality, size and shape, hood design, the inclusion of the sleeve bars, the braided cords, type of headwear, and other minor features. The Ph.D. convocation members use velvet fabric, three-sleeve bars and travera fabric, the HND and the convocation members with masters' degree gowns do not have. Management gowns like the Ph.D.'s also use velvet fabric, three sleeve bars, and a bonnet cap, but the main distinctions could be found in the braided cords and the hood linings.

The connections between the institution and its community are what give rise to the societal connotations of the garments. Green is a good example of a colour that indicates the institution's access to natural resources. The savanna's greenery, the possibilities, and the peace and the richness that lies beneath the surface of the world is symbolised by the colour yellow. In order to maintain the advantages of society, TaTU thus imparts knowledge and expertise in the exploitation of these natural resources. The gown's use of the colours and motifs conveys its relationship to the Tamale community. People attend academic ceremonies to see attendees in their respective gowns and to honour them because of the particular nature of the gowns, which attracts the public's attention. Such occasions are typically marked by pomp and splendour, with the graduates' family members and other well-wishers swarming the ceremony site to identify with the wearers amid celebrations and traditional music.

The employment of academic gowns at Tamale Technical University, like their counterparts in other technical universities, creates both direct and indirect jobs. The

school lends the gowns to other academic institutions that require them. Graduands are required to pay a fee to use the gowns. The fabrication of the dresses also generates financial gains for textile manufacturers and fashion designers. The continued usage of the dresses will, in turn, benefit the fashion and textile industries in Ghana and around the world. Photographers and vendors make money during academic ceremonies through their operations.

Graduands of Tamale Technical University enjoy tremendous emotional elation when wearing their gowns since the gowns serve as symbols of their accomplishment, and everyone wants a photo of themselves in their robes as a remembrance. Graduates who cannot put on their robes are really dissatisfied. The gown serves as a source of inspiration for aspiring graduates to complete their projects on time in order to wear them as well. The graduates find satisfaction and delight in having finished their laborious years of education and training, and wearing the gowns on such occasions of degree conferment gives them an air of pomposity, hence the gowns' name acapompo."

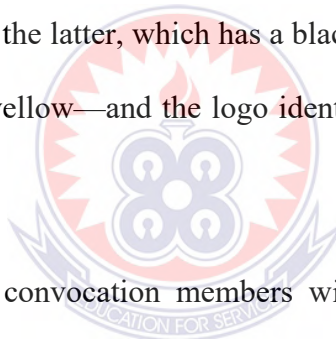


4.5.8 The Takoradi Technical University academic gowns' design aesthetics

The HND gowns (Figure 55, right) used by the graduands of Takoradi Technical University are mainly blue-black in colour for the robe, the headwear, and the tassel, and black for the hood shell, with yellow for the hood lining and the upper part of the frontface on which the heraldic crests of the institution are embossed. The gown also features sleeves with the upper part of their bases fastened with blue cord to blue buttons so that the wearer's lower arms can be revealed. The long, flowing nature of the gown resulting from the incorporation of the tacks in the design enables varied

body types to be accommodated. The various components making up the gown have been crafted in consideration of design elements and principles such as line, balance, proportionality, size, shape, material texture, colour, finish, and others. The colour scheme of the gown and its general layout enhance its aesthetic qualities. The blue and yellow colour codes on the gown and the inclusion of the crest connect the gown to the university's philosophy and enable it to exert its autonomy among its university peers.

The bachelor gowns (Figure 55, left) are similar to the HND ones, but the difference between the two is that the former have a longer yellow front face with the crests fixed right above the yellow strip. The former also has a yellow tassel attached to the blue mortar board, unlike the latter, which has a black tassel. Like the HND gown, the colour codes—blue and yellow—and the logo identify with the institution and hence can brand the institution.



For the gowns used by convocation members with master's degree qualifications (Figure 55, middle), black is the main colour of the apparel, with a white hood lining and a front face on which the institution's crests are embossed. The gown, just like the students, was created from a garbadine fabric. The gown layout for this category of wearers is identical to the students' gowns. Like the students' gowns, this design satisfies the sensory dimensions of the formal qualities of apparel and, consequently, adds to the aesthetic appeal of the gowns. The flowing nature of the dresses and the addition of fullness enhance the aesthetic appeal of the garments, with the logo serving as an additional form of ornamentation. When these robes are worn ironed over the wearer's undergarments, they, like the other academic gowns, highlight their appearance. Although the garment colours are alien to the institution's, the logo blend

reflects TTU's concept and primary mandate in the Western Region as well as in Ghana as a whole (Figure 64).

The Ph.D. gown, as found in Figure 55, is normally wine in colour, with a black velvet panel at the front bearing the logo. The Tudor bonnet is likewise black velvet with a matching wine tassel. The sleeve is distinguished from the students' and masters' gowns by the presence of three velvet bars on each of the sleeves. It is a full-length gown that is worn open like the other dresses. The hood is lined with wine, and the sleeves, unlike the students' and masters', are lined with wine, with wine edging at the sleeves's bases, adding to the design's elegance. Though the overall design and stylisation of the gown are appealing, the combination of wine and black makes it appear a little dull. Nonetheless, the addition of the emblem at the front increases its beauty to some extent. Overall, this gown has been meticulously created to befit the status of Ph.D. holders and identify with the institution through the crest.

The ceremonial robes, like the PhD gown, are mostly wine with black Tudor bonnets and are front-opened. The ceremonial robes, unlike the PhD gown, contain woven kente fabric at the opening that acts as front panels. The ceremonial gowns are classified into three categories: those worn by the school's deans and directors (Figure 57); those worn by the three top management members (Figure 58, 1st); and the registrar's own (Figure 58, 3rd). The gowns of the top management members, that is, the Council Chairperson, the Vice Chancellor, and the Pro-Vice Chancellor (Figure 58, 1st), are similar in design. The deans' and directors' robes have a wine cord on the headgear, whereas the top management members' gowns are yellow cords. The hood linings of both gowns are yellow, but the hood linings differ somewhat (Figure 57; 58, 2nd & 4th). The deans' and directors' hood linings, as well as the Ph.D. s', have a design

on the lining that features a rectangular winecloth design with a triangle hole at the upper portion of it, displaying the yellow lining at the sides and below the rectangle. When compared to the senior management's gowns, this provides more attractiveness to the gown from the back. The registrar's gown, which is likewise seen in Figure 58 (3rd) is identical to the other ceremonial garments but differs slightly. The gown is mostly wine in colour, with blue satin linings in the sleeves and hood. Unlike the other ceremonial dresses, the bonnet is white with a blue cord. The hood design is comparable to that of the university's deans and directors. The Registrar's gown features a front face panel exhibiting the "Edwin si edwin so" kente pattern in contrast to the gowns of the senior management, deans, and directors, whose gowns are decorated with woven kente materials exhibiting the design pattern "Fathia fata Nkrumah." The kente patterns connect the gown designs to the Ghanaian cultural background. When it comes to overall styling and looks, the gown designs are, on the whole, on point. However, some of the colours, such as wine and black, are not associated with the institution. Furthermore, unlike the Ph.D. gowns, the ceremonial gowns do not depict the institution's heraldic crest, making its degree of connectedness insignificant and thus not stamping out the institution's anticipated autonomy. In a nutshell, the gown designs' underlying brand identification falls short of sparking the institution's associated brand image, despite the fact that, on the whole, the gowns look more gorgeous and activate the emotions of the wearer and the audience.

From the crest's interpretation, the colour blue represents the members' honesty and trustworthiness, as well as the global aspect of the institution's technological education and training. The colour yellow, on the other hand, represents the

institution's status in technical and vocational education since it represents honour and commitment. The black and wine colours on the gowns are alien to the institution's philosophy. Essentially, the colour black signifies authority, power, stability, and strength. It also connects with intelligence. This presupposes that the black robe used by the master's degree holders and the Ph.D. cap and front panels connote how intelligent the holders of that degree are. The symbolism of TTU's wine colour for the ceremonial dresses of management (deans, directors, and senior management) represents passion, energy, strength, and love at a very deep level. Because management members are the institution's major decision-making bodies and administrators, wearing wine and black on ceremonial occasions demonstrates the calibre of officers placed in positions of trust in the institution. The fusion of wine and black for the Ph.D. academic dresses also shows that the wearers have gained authority, power, passion, and love for knowledge acquisition and sharing with society for the development of mankind.

Management ceremonial gown front panels (Figures 58), meanwhile, exhibit the "Fathia fata Nkrumah" kente patterns, while the registrar's features the "Edwin si dwin so" kente patterns. "Fathia fata Nkrumah", was changed to "Obaakofo mmu man" after the overthrow of President Nkrumah in 1966. Some of the motifs in the former are, from the top, "babadua serwaa", "apremo" meaning "gun", "babadua", "nkyimkyim," with the zigzag motifs, and the yellow "mpuankrong" on the black background. The "adwin si dwin so" front-facing panel used by the institution's registrar also consists of red, blue, and black "nsatea" motifs alternating with black, blue, and wine apremo," meaning gun," on a yellow background to match. These

kente patterns are meant for prominent people in society, and therefore, it is fitting that such officers are using them.

The inclusion of the crest's elements (Figure 65), which epitomises the existence of the Takoradi Technical University, also adds more. For example, the university's forefathers shared energy, strength, power, and resolve, as well as passion, desire, and love, through academic vigor, hard work, and sacrifices put down for the success of academic excellence and all its undertakings, and the colour red signifies this. The cogwheel symbolises technical and vocational education, personnel training, and action research; it acts as the institution's brain, while the institution is the engine machine. It promotes and drives the institution forward via academic achievement by providing opportunities for people in the community and beyond to gain technical and vocation-education skills and knowledge. The Adinkra sign, "Ntesie" or "Mate Masie," represents the institution's wisdom, understanding, and caution in considering everything that has occurred in the university community. Deep wisdom comes through listening and keeping what is heard. It also connotes a spiritual or religious resemblance between the land's traditional practices, culture, and institutions, which shared a common link across time. It also serves as a storehouse for the institution's Ghanaian cultural values by instilling those values in the university community. It represents the mark of individual contribution from hierarchical efforts in the institution's development through technical and vocational education, manpower training, and action research to help industry and begin in the fields of human resources and information development. For the benefit of both present and future generations, the open book serves as a platform for recording and perpetuating timeless truths, wisdom, and knowledge. It is, once again, a lasting reminder of the

institution's great leaders' thoughts, philosophy, and practices as they have been passed down through the ages. The written pages represent the unwritten future and events that are yet to occur, reminding the institution that there is still work to be done, a story to be told, decisions to be made, dreams to be pursued, and adventures to be had. In terms of educational activities, it constantly reminds the institution of the importance of lifelong learning for the Western Region's industrialisation and economic development and Ghanaians in general. Furthermore, it signifies the educational programs that the university seeks to provide for its students so that they can learn and grow throughout their lives. By presenting its richness in oil and gas, fishing, and seaports as an industrial and commercial center for commerce, the sea conveys the institutions' pride in their natural endowment of resources. It is also a cautionary warning, as productivity comes with its own set of obstacles, but there is hope in the institution's day-to-day efforts in all areas of development. The red ring circle in the emblem represents the institution's hard work and sacrifices, which underpin success in academic excellence and all of life's activities. It also represents all human civilisations that the institution accepts. The bright golden circle represents wealth created through the application of skills and knowledge gained through the institution's distinctive curriculum. It also highlights the institution's intellect and integrity by presenting a wealth of ideas and initiatives to anyone or any entity seeking academic acclaim. The inscription "adwen, akoma na nsa ma mponu" (the mind, heart, and hand) indicates talents and knowledge generate progress, as the institution's motto symbolises the university's identity and values. It supports Ghanaian culture's history by providing high-quality technical and vocational education. Both the colours red and black do not align with the philosophy of the institution. On the whole, Takoradi Technical University academic gowns at all levels

are packed with philosophies that need to be published for the education of the wearers and observers.

In a political sense, these designs were crafted considering the political denotations of the wearers. Whereas the students' gowns are less elaborate, the Ph.D. and management gown designs are exquisitely designed with more details and decorations. The gowns are made distinct from each other through colour, fabric quality, size and shape, hood design, the inclusion of sleeve bars, type of headwear, and other minor features. For instance, the Ph.D. uses velvet fabric, three-sleeve bars, and cotton fabric, which the students and convocation members with master's degree gowns do not have. Management gowns, like the Ph.D.'s, also use the black velvet bonnet cap and three sleeve bars, but the main distinction between the two is the yellow hood lining for the management, except for the registrar, and blue and wine for the Ph.D. Among the senior management gowns except the registrar's, no clear difference exists as regards the fabric, sleeve bars, or front panel kente strip. Cord colour and hood lining colour. Between the first line manager's gowns and the senior management gowns, the former has a wine cord while the latter uses a yellow cord; furthermore, the former uses the CNAA type of hood while the latter incorporates the simple type.

The gowns' societal implications result from the institution's ties to the local community. In particular, the institution's chosen colours, adinkra symbols, and kente patterns tie to the identity of Ghana and the Western Region. People gather to see the congregants in their individual gowns and applaud them for their accomplishments during academic occasions like the congregation because these gowns attract the public's attention. Such ceremonies are typically marked by pomp and splendor, with

the graduates' family members and other well-wishers descending into the ceremonial grounds to identify with the wearers alongside celebrations and traditional music.

Economically, the gown benefits society by creating both direct and indirect jobs. Takoradi Technical University can generate cash by renting out the gowns to other institutions, including their own graduating students. Additionally, it expands the fashion and textile sectors in the nation by providing jobs for designers, manufacturers, and suppliers of dresses. On the day of the celebrations, when food vendors and other sellers gain money, indirect temporary jobs are generated. Photographers can get work by taking images of the celebrants wearing their gowns, either alone or with friends and family.

Graduands of Takoradi Technical University, like other graduands from higher educational institutions, experience intense emotional elation when wearing their gowns, given that they are a symbol of their accomplishment and everyone wants a photo of themselves in their gowns as a keepsake. Graduates who are unable to put on their robes are really disappointed. The gown serves as a source of inspiration for aspiring graduates to complete their projects on time in order to wear them as well. The graduates find fulfillment and pleasure in having finished their arduous years of schooling.

Put together, the findings suggest that the academic gowns used by the technical universities in Ghana were inspired by gowns from traditional universities in Ghana and around the world, and therefore the designs are similar in form. This is in line with Essel and Kemevor's (2016) study, which indicated that the design of the dress has evolved over time but has not affected its sartorial robe-like structure with

accompanying accessories. Almost all the various components of the gown designs at the various levels have been crafted to satisfy the sensory dimensions of apparel regarding line, proportionality, balance, size, shape, colour, texture, and others, except a few. Fosu (2007) evaluated each creative work artistically based on the communicative symbolism incorporated into its typeform, according to Donkoh et al. (2020, p. 84). Christman (2003), cited in Annku and Mireku-Gyimah (2010, p. 72), claims that shape, colour, and composition are what give aesthetics their value. According to Kim (2006), the concepts of aesthetics include balance, emphasis, movement, pattern, proportion, harmony, and variety, and these are generally used in art education today. Visual product aesthetics in the world of fashion include elements that make up the appearance of clothing, such as material, proportion, colour, embellishment, shape, and size (Bloch et al., 2003). Therefore, it can be said that the gowns designed in consideration of the sensory dimensions of apparel' formal aesthetic quality have satisfied the requirements of authors such as Bloch et al. (2003), Christman (2003), Fosu (2007), Kim (2006), and similar others.

All in all, the gown designs for the middle management and senior management appear more splendid and grandeur than the convocation gowns for the doctorate degree holders. Likewise, the convocation gowns for the doctorate degree holders and professors also appeared more gorgeous than the student and convocation gowns for the master's degree holders. This is consistent with the gowns used by other higher education institutions, both locally and internationally. For instance, local traditional universities like the Universities of Ghana, KNUST, Cape Coast and Winneba, as well as international universities like Oxford, Cambridge, Harvard, Sydney, Kenyatta,

and many others, have designed their management and doctoral gowns to be more meticulous and magnificent than the lower-level academic gowns.

Due to the inappropriate colour schemes or the absence of the institutions' insignias, some of the gowns cannot be linked to their institutions existence and therefore fall short of being branded, especially the Accra Technical University gowns below management. But Berghman and Hekkert (2017) have asserted that autonomy and social connectivity are essential for aesthetic appreciation; therefore, it is important that gowns at all levels be designed to ensure autonomy and social connectedness. This stands to mean that if almost all the management ceremonial dresses identify with their respective institutions' philosophies and exert their autonomy among their peers, it is a step in the right direction and must be applauded since they are the faces of their various institutions. However, those designs that fall short of branding their institutions do not align with Berghman and Hekkert's (2017) standard and hence need to be greatly modified to serve their purpose as branding tools.

Politically, the designs of the gowns at the study areas typically reflect the identity and status of the users, permitting specific designs for undergraduate (HND and bachelor), convocation (masters and Ph.D.), and management gowns (deans, directors, and senior management). The undergraduate and master's gown designs at technical universities are, for the most part, identical. The results demonstrate that small details on the gowns are employed within the institutions to denote rank differences. Colour schemes, front-facing strip patterns, sleeve types, and, in some cases, fabric quality are all examples of such details. This result is consistent with academic institutions both abroad and in Ghana, where academic gowns are made to fit various accomplishment levels and academic levels depending on colour (i.e.,

clothing colour, hood lining, or front facing) and form. For instance, see the University of Sydney (Academic Dress Standard, 2015), the University of Birmingham (Goodman, 2019), the University of Warwick (Jackson, 2008), Kenyatta University (Newton, 2014), the University of Ghana, KNUST (Howard, 2015), and many others. This finding aligns with the literature in terms of the variations in gown designs according to status (Amoakoh et al., 2006; Christianson, 2006; National University of Ireland, 2006). In respect of the fabrics, most often, high-quality materials like woodin cotton, viscous material, travera, and others are used for the doctorate and management gowns. Regenerated fabrics such as brocade are used only for management gowns in Ghana. The master's gowns for convocation members who have earned a master's degree and the undergraduate gowns are typically made from gabardine, polyester, cotton, and other materials that are less expensive. To assert their identity and authority both domestically and abroad, managerial robes and gowns are made from premium textiles. Exemplarily, Harvard uses thick ribbed black silk (Hoffmann, 2009), Hertfordshire uses silk brocade (Christianson, 2006), Kenyatta uses satin (Newton, 2014), Manitoba uses black damask (Academic Dress at the University of Manitoba, 2017), Wollongong uses black Salisbury damask, Warwick uses silk damask and satin damask (Jackson, 2008), Oxford uses black damask (Cox, 2001), and many more universities use other high-quality fabrics. This current finding agrees with international practices where high-quality and expensive fabrics are used to manufacture management ceremonial robes, as has been highlighted.

In the sociocultural context, the gown designs differ from one institution to the next mainly in terms of the designated colours, insignias, and mottoes (philosophies) of the institutions, but the forms are in general similar. Within the institutions, there are

faculty and/or school dissimilarities among the gown designs that emphasise their respective core mandates, which are usually showcased in colours and may be shown with logos too. Some of the gowns identify with the society and the environment within which the institution is situated through the colours, fabric designs, and cultural symbolism and iconography that may be found in the logo designs. The use of cultural taste as a means of asserting social status has been argued for by Bourdieu (1984). Per the literature, clothing items serve as social labels and identities for the social community because they are a visible representation of cultural objects (Tajuddin, 2018). Several literary works have discussed the importance of clothing. For instance, the fashion and clothing industries use clothing to express and expose cultural and social identity (Akdemir, 2018) and define a certain socialisation technique, philosophy, historical period, class, neighborhood, and identity (Tajuddin, 2018). "A person with clothing stands out with a national, wealth, and status background, and within it, certain attitudes and affinities can be pointed out toward specific cultural, professional, artistic, and distinct lifestyles" (Todorović, Toporišič, & Čuden, 2014). For this reason, Akdemir (2018) said members of a group don distinctive clothing that is required by the group in order to represent their identity. Waquet and Laporte (2011, p. 73) have recorded this: "The garment is always involved in a social context, and it puts the position of the individual in the face of the group." Morris (1977, p. 213), as cited by Larsson (2014), states that "it is impossible to wear clothes without transmitting social signals." In line with the author's assertions, society is attracted by the nature of the gown designs, and during academic ceremonies, people troupe into the ceremonial grounds to observe the gowns and celebrate with the achievers with pomp and pageantry amidst parties and music. In countries like South Africa, Ph.D. gown wearers are celebrated by the people in their

society because they feel that the gown is connected to them. Socially, the degree of connectedness and autonomy might become the determinants of aesthetic experience (Berghman & Hekkert, 2017).

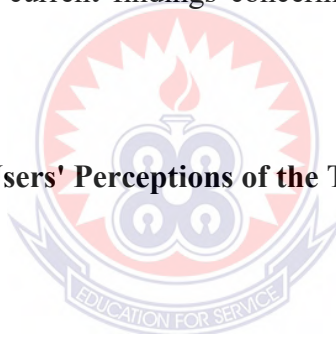
The academic gown market benefits society economically by creating both direct and indirect jobs. While they are rented to the graduands from the school or other interested schools, the student gowns serve as a source of revenue for the school in Ghana. Internationally, graduands rent gowns from gown makers for academic ceremonies. According to Howard et al. (2019), Kumasi Technical University rents robes from other Ghanaian traditional universities. Furthermore, food vendors, other merchants, and photographers all profit financially from the academic celebrations where the gowns are in use. Also, it advances the fashion and textile sectors by generating jobs for designers, manufacturers, and suppliers of apparel. There has been research about the economic advantages of the textile and garment industries elsewhere in the world. For instance, regarding trade, GDP, and employment, the textile and apparel sectors are crucial for a select few nations, and they have also made a big impact in a number of other nations (Keane & Willem, 2008). The textile and apparel sector contribute significantly to the global economy in terms of trade, employment, investment, and income (Leal Filho et al., 2019). It also employs 2.3 percent of the workforce in Massachusetts and pays out 1.9 percent of the state's total wages (Barrow, 2000). As a result, academic gowns, which are clothes, also benefit from these advantages.

Emotionally, graduands are highly elated in their gowns because it provides a source of satisfaction and pride for them to have completed their long years of schooling with its attendant ups and downs. Therefore, most graduands would want to have

photographs taken while in their gowns as souvenirs. Graduands who are unable to wear the gowns become highly disappointed. The gown also provides a source of motivation for would-be graduands to finish their projects on time so as to also wear them. Howard et al. (2019) found in their study that many respondents were happy to see graduands clad in academic gowns. According to Howard et al. (2015), wearers and would-be wearers of academic gowns prefer wearing the dress during academic ceremonies because of its prestigious status. Howard et al. (2019), as part of their concluding remarks, indicated that many who wear academic attire frequently do so with satisfaction and optimism, feeling that such distinguished and colourful clothing represents a constant academic torch for enlightening society. These findings therefore corroborate the current findings concerning the emotional implications of the gowns.

4.6 Objective 4: Gown Users' Perceptions of the Technical Universities'

Academic Gowns



4.6.1 Overview of the section

The study investigated academic gown users' perceptions of the gowns they wear for ceremonial purposes at their various technical universities (TUs). 48 participants answered questions on how they perceived their various institutions gowns. The participants were made up of: Accra Technical University (6), Cape Coast Technical University (2), Ho Technical University (9), Kumasi Technical University (10), Sunyani Technical University (4), Tamale Technical University (6), Takoradi Technical University (9) and other participants (2). The bulk (83.33%) of the 48 (100%) were male, and the remaining were female. Over 70% of participants were

between the ages of 31 and 60. Of these, 75% have graduate or doctoral degrees. The majority of them (82.27%) still wear the academic outfits during academic ceremonies, and 45.83% of the wearers have backgrounds in the arts, fashion, or textiles. The comments of the participants were transcribed using QSR NVIVO 10 software. The transcribed interview data were coded into themes and sub-themes such as "gown symbolisms" and "degree of satisfaction with the gown designs". Essentially, the comments of 22 participants settled on the symbolism of the academic gowns, whereas 26 were on the degree of their satisfaction with the gowns. out of the 22 (100%) participants who comments related to the symbolism of the gowns, "Source of motivation," had 1 (4.5%) participant, "Attractive power," had 2 (9.1%), "For celebration," had 2 (9.1%), "As a source of satisfaction and pride," had 4 (18.2%), and "Projecting identity characteristics," had 13 (59.1 participants. On the satisfaction, specifically, 42.31% were satisfied with their gown designs, 34.51% were dissatisfied whilst the rest were satisfied to some extent.

4.6.2 Gown symbolism

This study delved into the perceptions of academic users regarding their institution's various academic gowns. It emerged that academic gowns serve as items of attraction, a source of motivation for students to complete their final year work on time in order to wear the gown, a source of satisfaction for the wearer as it portrays reward for hard work and achievement, an important article of attire for celebrating academic laurels, a source of branding for the institution awarding the degree and the wearer, and, most importantly, a source of authority and identity demonstrating the status of the wearer.

Some participants were of the opinion that the academic gowns serve as a source of motivation for would-be graduands. For example, a past student and service personnel (TTUP5) said that:

As a student, when you are in school and you see seniors in the academic gown, it is like some form of energy, some strength, so that you also hurry up with your work, and one day you also wear that gown.

Some participants saw the gowns as possessing "attractive power". For instance, ATUP1 indicated that "it is very beautiful, such that you also want to be in it". A gown wearer (ATUP5) observed that "it is good to see a graduate in an academic gown".

As an item of clothing for "academic celebration", a dean of faculty (KsTUP8) said that "I will say that gowns are very important because there is hardly a ceremony in universities in terms of graduations, investitures, and so on without the use of gowns, and so it must be done well." A gown designer (OP2) commented that "the knowledge, the skills, and the competency they have acquired are what they are celebrating."

As a "source of satisfaction and pride," TTUP8 spoke on the issue as follows:

When the students finish and put it on, they will have the satisfaction of having completed school, and the dress conveys that message of satisfaction. If you are done and you put that dress on, you will see its own spirit. Immediately, you put it on, and then you know that yes, I am of this status and must walk with that personality and live like that. It means I have achieved this level.

Considering the academic gown as a "source of branding", KsTUP 8 said that "the gown actually sells the university and adds some clouds to our image." In the opinion of OP1, "this academic gown is used to decorate the products of the institutions to

display them to the community, indicating the success and also the level of achievements, the position, and the calibre of people who teach them."

As regards the academic gowns possessing "identity characteristics," a past student (ATUP2) stated that "the academic gown is very important because when worn on ceremonial occasions, it shows your status in academia and your position in the school." KsTUP1 also pointed out that "in academic institutions, the gowns are very significant. They are the basic descriptive elements that show the divisions among the people in the university. The gowns have effectively divided the type of qualifications that we have." Another participant (OP 2) also added that "it is a symbol of authority because the degree holders have achieved some kind of academic authority." It is thus no surprise that Roseman University of Health Sciences (2022), on the publication of the commencement symbolism, has published that "the academic gown today symbolises the democracy of scholarship because it covers any dress of rank or social standing underneath." The results have shown the importance of academic gowns as items of attraction, sources of motivation for students to finish their final year work on time in order to wear the gown, and sources of satisfaction for the wearer as they represent rewards for effort and achievement. The gowns also serve as an essential piece of clothing for celebrating academic honours, a source of branding for the institution awarding the degree and the wearer, and, most importantly, a source of authority and identity. Arguably, the gown and cap are very symbolic in the ceremonial setting of academic institutions, as they provide inspiration and colour. The employment of academics during academic ceremonies demonstrates a visual semiotic force that, while symbolically reminding wearers of their academic responsibilities, also offers an alluring view for onlookers (Essel & Kemevor, 2016).

4.6.3 Level of satisfaction with the academic gowns

Almost all the commentators were satisfied with the management's ceremonial gowns but not the non-management gowns. The expression of the varied satisfaction dimensions came from all seven participating institutions. The following are some of the comments exemplifying their opinions:

Concerning individuals who are content with their academic gown designs, 20 (41.7%) were satisfied, as evidenced by the following remarks. Specifically, ATUP1, a fashion student, was pleased with the Kente front face, consisting of the amalgamation of different colour schemes. She said, "For the new gowns with a woven Kente fabric front, the combination is okay." ATUP3, an administrator, was also satisfied with both the students and the convocation members gowns. She remarked, "I am satisfied with the students' gowns and those of the convocation." HTUP8 was also happy anytime he saw management in their gowns. He said of the management gowns,

I could see vim in them when they wore those gowns. I could see they were happy in their gowns when the council chair's name was mentioned and he started putting his gown in order. Then I say, these people are enjoying it.

A respondent, KsTUP1 indicated that "I am satisfied with the gowns because they take into consideration all the institutional, cultural, and visionary things that the school represents. Since it depicts all those things, I am very satisfied." STUP3 spelled out why he was satisfied with all the various gowns in his institution. He stated that:

All the various gowns that we have are connected to the institution's identity among its counterparts. So, in terms of the academic gown portraying the identity of the institution, I think that it is based on the design, the acceptability, and everything about it.

According to TaTUP1, his institutions' gowns are attractive based on the general layout of the gowns and their colour schemes. He observed:

Our gowns are very appealing. The combination of the colours is very attractive, as is the way it is sewn.... I am very satisfied with the gowns that we have in terms of the fabric type, the texture, and the colours.

TtUP6 was also satisfied with the management ceremonial gowns and put it this way:

"For those gowns, I think the ceremonial one is nice when you wear it because of the yellow lining, and the tassel being yellow makes it nicer." Though KsTUP5, the fashion designer, was satisfied with the management gowns, he expressed the opposite in respect of the students' ones. He indicated that "I am satisfied with the senior management gowns but not with those of the students."

Apart from some of the participants indicating their satisfaction with their gowns, as evidenced above, others 17 (35.4%) were dissatisfied. For instance, though ATUP1 was satisfied with the multi-coloured woven kente front, she was not satisfied with the printed one. She expressed it this way: "But the printed kente fabric front one is not the best. There is a problem with the colour combination. " Again, as much as ATUP3 was pleased with the students and the convocation gowns, she was not pleased with the deans' and directors' gowns. She said, "But I am not satisfied with the gowns of the deans." In the same vein, ATUP7, a lecturer in the marketing department, was unsatisfied with the gowns' colour scheme, which was not based on the logo. He noted this way: "I am not satisfied with the colours of the gowns not being part of the

official colours of the institution." HTUP11 was dissatisfied with gowns because he thought they were not serving their purpose. He indicated, "The gowns that we have produced are not serving their purpose." Furthermore, KsTUP6 stated that "I am not satisfied with the gowns. I think more work needs to be done." In addition to that, TaTUP6 voiced that "I am not too pleased with the gowns as to the fabric type, the design of the gowns, and the logo".

Aside from some participants who were either satisfied or unsatisfied, there were others 11 (22.9%) who were somewhat satisfied. As a few of the examples show, "To some extent, I am satisfied with the various gowns designed for ATU," ATUP1 said. KsTUP10 was of the opinion that his institution's gown designs could be improved next time. He stated, "Satisfaction with the gowns? It can be better. " I am not totally satisfied with the design so far, as said by KsTUP8. "Generally, apart from the gowns not having the Northern identity, I think they are nice." TaTUP5 expressed. CCTUP1 was also satisfied to some degree. She said, "But for the actual work, we were okay with it."

The result has revealed three categories of satisfaction with the participants' institutions' academic gowns: "satisfied," "not satisfied," and "satisfied to some extent." The satisfaction extended to the design of the front facing as well as the overall design of the undergraduate gowns and convocation gowns of some institutions. The senior management gowns pleased more participants. Those who were dissatisfied complained about the fabric type, the overall design of their institutions' gowns, the deans' ceremonial apparel, the colour scheme, and several of the front facings' poor colour combinations. Those who were not completely satisfied believed that the gowns should be improved in all ways, notably by incorporating

native designs, symbols, and textiles. According to a study, businesses must provide goods and services that result in customers who are incredibly happy and devoted to them (Dimitriades, 2006). A statistically significant link between product quality and consumer pleasure has also been discovered by Cruz (2015). Similarly, Channa and Sajid (2020) discovered a relatively high link between quality and cost and customer satisfaction. Shi and Yu (2013) contend that quality is the most important factor that every enterprise should focus on in order to maintain basic competitiveness and customer trust. In the garment sector, the primary factors impacting consumer satisfaction are perceived service quality, perceived product quality, and brand image (Cuc, 2015). In view of the authors assertion presented, quality of product ought to be held in high esteem in an attempt to ensure customers' product satisfaction. This means that the quality of the academic gowns must go hand in hand with users' satisfaction. Thus, the functionality and expressive quality of the academic dresses ought to be crucial to the Technical University Management and gown designers. This therefore necessitates a general improvement in gown designs from the conceptual to the final stages by making all-encompassing decisions that will provide an end result that is aesthetically beautiful and deemed acceptable by everybody. The haphazard design of the gowns which negatively influence the brand identity and image of the institutions which results in creating either user "dissatisfaction" or "somewhat satisfaction" need to be nibbed in the bud.

4.7 Objective 5: A Framework for Designing and Creating the TUs' Academic Gowns

4.7.1 Overview

This section presents a proposed framework for designing and producing academic gowns for the Technical Universities in Ghana as a guiding concept. It includes pre-design factors, design development, implementation, and testing the finished product. These were crafted based on research into design histories, philosophies, aesthetics, and wearers' concerns about the need for appropriate gown designs for their institutions.

4.7.2 Proposed framework for designing befitting academic gowns

A schematic illustration exhibiting suggested design guiding principles for an academic gown is shown in Figure 66. The pre-design considerations, which begin with the objective of the design as proposed by the client institution, are the first step in the design process. The design team is then mobilised by assembling professionals with backgrounds in fashion and textiles. At this point, it is extremely important to do a literature search that includes journals, periodicals, books, and other documentation to determine the design history of the existing gowns and the indigenous traditional designs. There should be more discussions to clarify the issue and determine the requirements with management, users, and, if practical, traditional design professionals and other stakeholders.

The following stage is design development, where the institutions' ideologies, traditions, histories, and aspirations are crucial to the design. This is due to the fact

that the design must be geared toward conveying both the wearer's and the institution's identity and, in the end, branding the institutions. These concepts are represented in the crests and logos of the institutions by their colours, emblems, and mottoes. The design philosophy must therefore be connected to the institution's philosophy in order to make the designs significant to the beliefs and dogmas of the institution. This will help drive home the institutions' valued identity through the academic gowns. At this point, it is equally crucial to emphasise the philosophical underpinnings of the garments.

The ideas guiding the different aspects of gown designs aim to emphasise identity distinctions with regard to fabric kind and quality, colour, form, size, design elaborations, and other factors that specify the wearer's position and affiliation (intra- and inter-institutional gown differences). Examination of the numerous design possibilities and brainstorming are also included in this stage. The ideas are then turned into early sketches (designs), with the goal of generating a suitable design that is prepared for prototyping.

In order to realise the prototype, the implementation step combines the selected fabrics and trims with the right tools, equipment, and sewing techniques. The identity of the wearer and the awarding institution should serve as guidance in this (Figure 66).

The testing and evaluation stage, which comes next, aims to investigate the viability of the finished prototype. At this step, prototypes (made samples) are worn to test various features, including comfort, protection, mobility, and ease of movement (function).

Once more, the samples' aesthetic attributes must be evaluated, and this includes determining the samples' attractiveness or lack thereof by looking at balance, line, symmetry, texture, harmony, colour, dynamics, rhythm, coherence, and other factors (intrinsic or formalism qualities). The sample's expressive or extrinsic aspects depend heavily on the design's originality and connection to the organisation. To establish the institutions' brand, the design must be able to convey to the general public the philosophical and aesthetic implications of the institutions.

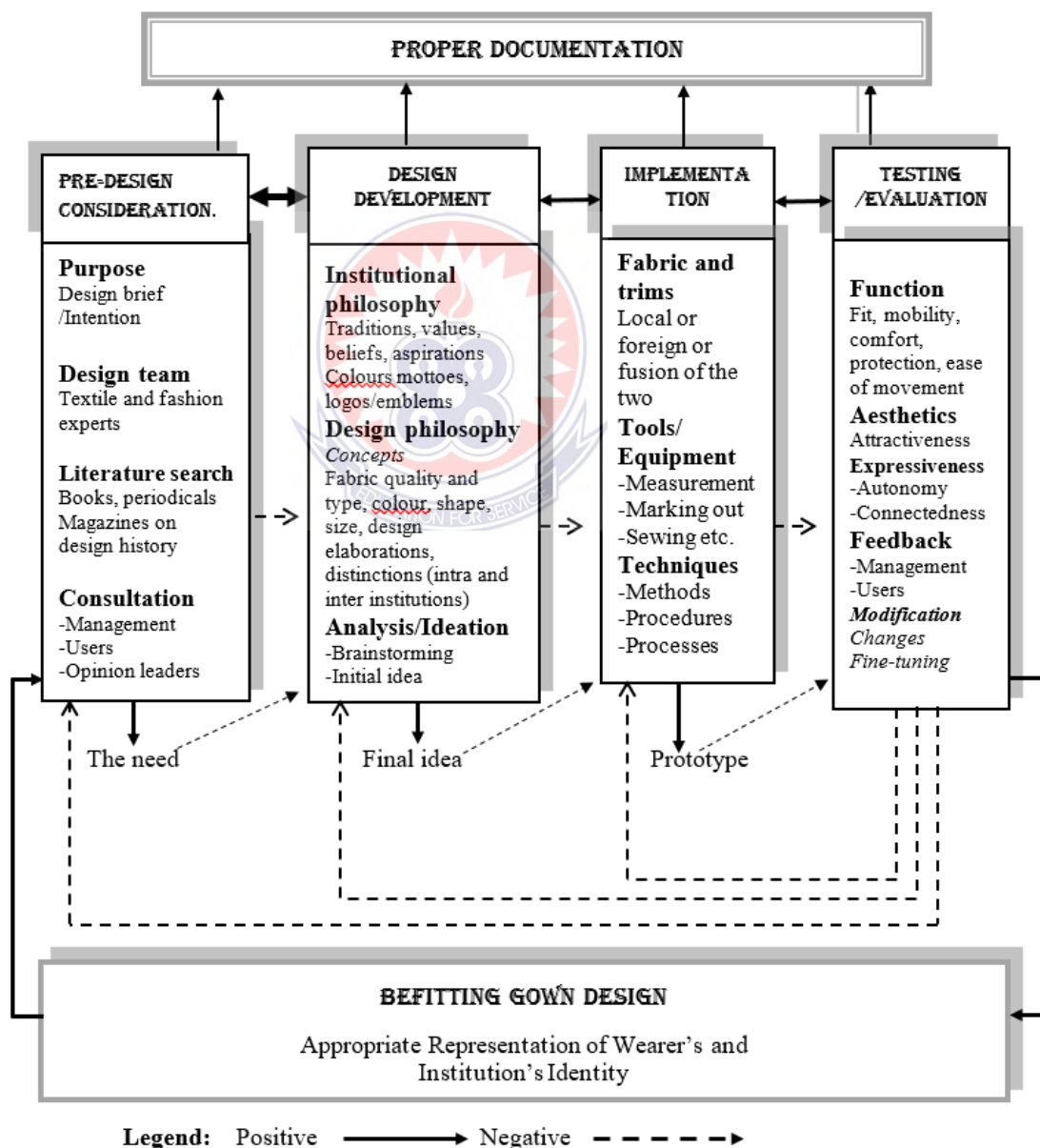


Figure 67

Framework for Designing Befitting Academic Gowns. Image Displaying a Proposed Design Framework for Designing and Producing Befitting Academic Gowns for The Academic Institutions. Image Created by the Researcher in August, 2022 Based on the Works of Thoring and Muella (2011), Lamb and Kallal (1992), Plattner et al. (2011), Linderberg et al. (2010), and Design Council of UK (2005) as cited in Mullar Rotenberg (2018).

The wearers and the design team should do this testing and evaluation to gather the essential feedback that may certify the designs or necessitate certain alterations or revisions, as well as fine-tuning of the designs. The samples are tested and evaluated, and once they pass, they are deemed "befitting," which means that the designs have the proper markings for the wearer's identity and the granting institution's identity and are prepared for full implementation. However, negative feedback will force designers to revisit the different troublesome design stages in order to make the necessary changes. For the sake of future designs, research, and education, it is crucial to maintain thorough records of the many stages of the designs (Figure 66).

This study's framework corroborates with several other studies. Exemplary, Watkins (1988) proposed seven design process models adapted from Koberg and Bagnall (1981). Lamb and Kallal (1992) design framework for apparel design and LaBat and Sokolowski (1999) three steps of the core design process. Additionally, Plattner et al. (2011), Lindberg et al. (2010), Design Council of UK (2005) as found in Muller-Roterberg (2018), Thoring and Muella, (2011) and others have illustrated varied design thinking processes as blue prints for producing artefacts. Whilst some start from "problem identification to evaluation" (Lamb & Kallal, 1992), others begin with "understanding of the challenges to testing of the prototype" (Thoring & Muella, 2011).

It is important that the study's design framework be followed when designing academic gowns for the higher educational institutions in Ghana and beyond.



CHAPTER FIVE

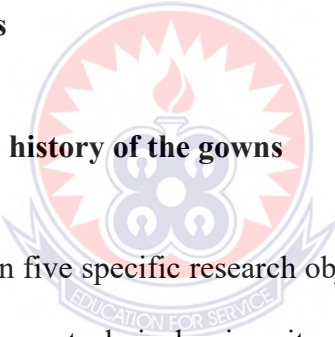
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Overview

Based on the study's five main objectives, this part presents an overview of the primary findings, draws conclusions, and makes recommendations. The presentation generally starts with the design history, and moves through design philosophy, design aesthetics, and wearers' opinions of the gown designs at their institutions before offering a framework for academic gown design as a suggestion.

5.1 Summary of Findings

5.1.1 Objective 1: Design history of the gowns

The logo of the University of Education, Winneba, is a circular emblem. It features a central sunburst or starburst design in red and white. Below the sunburst is a blue shield with a white lamp of knowledge. The shield is flanked by two blue figures, possibly representing students or scholars. The entire emblem is set against a red background. Below the emblem, the motto "EDUCATION FOR SERVICE" is written in a blue banner.

The study was premised on five specific research objectives. The first objective traces the design history of the seven technical university academic gowns while the second objective examines the design philosophy underlying the various academic gown for the technical universities. The third objective investigates the aesthetic value of the various academic gowns in Ghanaian Technical Universities followed by the fourth that determines the perception of the gown wearers as regards the design identity of the Technical university gowns. It ends with the fifth objective that develops a framework for the designing academic gowns for the Ghanaian Technical Universities.

Under objective one, the study revealed that:

Because technical universities did not have academic gowns during their first congregational ceremonies, they were forced to hire from Ghana's traditional universities. After using borrowed gowns for a while, the institutions decided to design their own appropriate gowns in order to avoid the lack of identity that came with borrowing, save money by not hiring, and generate funds internally through hiring out gowns to other institutions. This movement of the technical universities obtaining their own gowns started during the polytechnic era, between 2000 and 2010, with Kumasi Technical University taking the lead in 2000. Before the gowns were designed, management indicated the need to do so, and their input was periodically sought at several levels of the designs. Some institutions have design teams made up of some members of the fashion and textile department and/or the art department. Others do not have any design team but mostly fall on the gown suppliers for the creation of the gowns with management's approval.

Accra Technical University started producing its own gowns in 2005 by a couple of staff members in the fashion department, namely Emma Donkor, Joyce Oppong, and Joyce Amoah, on an incremental basis at the time when Prof. Ralph Kingston Asabre was the rector. The design and gown production were subsequently taken over by the CDM Fashion Coutre in 2015 in the time of Prof. Sylvester Achio and subsequently in 2021, the production unit of the fashion department took over from CDM Fashion Coutre and designed the third HND gown. Other designs such as the third HND gowns, the proposed honorary degree gowns, and convocation gowns for teaching and non-teaching staff, have been designed and produced by them lately in 2021 in Prof. Sylvester Achio's era. However, the convocation gowns for the master's degree

holders and the management gowns were outsourced to a private supplier called CDM Fashion Coutre in 2017, when Prof. Edmund Ameko was in charge as the acting Vice Chancellor.

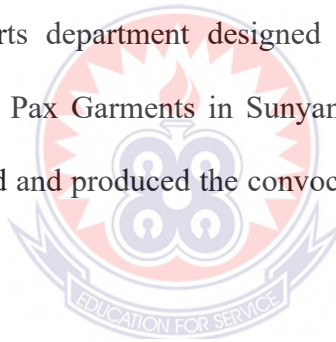
Cape Coast Technical University HND gowns were produced in 2007 through outsourcing to a supplier during the rectorship of Prof. R.K. Nkum. The fashion department produced the first management ceremonial dress for the institution in 2010, when Mr. Augustus Marx Koomson was the rector. The current management gowns were outsourced to suppliers in 2020, when Prof. Owusu Sekyere was the Vice Chancellor.

Ho Technical University produced its first gown in 2006 for Bachelor of Technology graduands during Dr. Afeti's time. The present HND gowns also started in 2018. The first management gowns were produced in 2014–2015, the second in 2017, and the current one between 2019 and 2020. All the gowns have been made in-house and designed by Dr. Elizabeth Obinnim. The first two management gowns were created during the reigns of Prof. E.K. Sakyi and the current one, Prof. Ben Honyenuga.

The Kumasi Technical University gowns were created by the fashion department and were first introduced in the early 2000s, but they are no longer in use. After a protracted financial hiatus, it resumed in 2012 with the production of the HND gowns with woven kente faces made by Abdul Razark and Ibrahim Mohammed. In 2014, Ibrahim Mohammed switched to printed kente front faces, which were made in-house during the tenure of Prof. Nsowah Nuamah. The new HND gowns with the simple yellow fabric front facing were subsequently produced between 2019 and 2020, although the fashion department workers oversaw the process. The department design

team created the Master of Technology graduates' gowns in 2020, during Nana Prof. Owusu Achiaw's era as VC. Since 2008, management gowns have existed but are no longer in use. All management members received a fresh set of gowns in 2014, and the investiture gown was created in 2018–2019. For all management personnel, new gowns have been developed as of 2020. All of the management gowns were created by the university's department of fashion and textiles, and they were all made by Abdul-Razark Seini Yusif, a principal technician.

Sunyani Technical University's first management gowns started in 2011 and were outsourced; the current gowns started in 2014 or 2015 in the era of Prof. Appiah-Adinkra. There are also bachelor and convocation gowns for Ph.D. holders. The Visual and Industrial Arts department designed the current management gowns, which were produced by Pax Garments in Sunyani, a Catholic garment production factory. Pax also designed and produced the convocation gowns for the Ph.D. holders and the B.Tech. degrees.



The fashion department of the Tamale Technical University produced the first HND gowns in 2007/2008, which were designed by Prof. Peligah, the rector. The same department produced the rector's gown in 2008, which was also designed by him. The current gowns for HND, convocation (masters and Ph.D./professors), and management were produced in 2018 and outsourced to a supplier in Kumasi called Mr. Boakye. This happened during the tenure of Prof. Asuro as the VC.

Takoradi Technical University gowns for the management and convocation (Ph.D. and masters) were first supplied in 2010, and later in 2011, the HND and B. Tech. gowns were added up. They were designed and produced by Mr. Boakye, a gown

contractor in Accra, during Rev. Prof. Daniel Adjepong Nyarko's era as the Rector. The number of gowns at all levels except management was increased in 2011 (Ph.D.), 2010 (Masters), and 2012 (HND and B.Tech.). In 2018, more gowns were added up at all levels apart from management, this time by a supplier called Sparkx SM Ghana Ltd. in Accra.

In all, undergraduate and management gowns are now available at all seven technical universities, but all of them do not have enough gowns for convocation and non-convocation members. Academic deans and directors dress in ceremonial robes at a couple of the institutions, like Accra and Takoradi Technical Universities.

While the remainder have just updated the undergraduate gowns, many institutions have changed both the undergraduate and management academic gowns since their original designs. The fabrics used, the gowns' front face, sleeve type, cap, hood, or the general designs are some of the modifications made within and across the institutions in an effort to achieve distinctive and acceptable designs.

While some institutions create the majority of their gowns internally, others outsource them to contractors in Ghana. The technique of outsourcing gown production includes drawbacks, such as a potential impact on allowed quantity and design quality due to insufficient internal control.

The gowns were primarily constructed of foreign textiles, though occasionally they included indigenous and imported fabrics. Typically, local materials were used for the front facing panel, and foreign fabrics were employed for the main garment. For the previous rector of Tamale Polytechnic, another robe made entirely of indigenous materials was created.

Insufficient finances have been the bane of the technical universities in Ghana such that the majority of them do not have enough funds to obtain adequate academics for their wearers during academic ceremonies. Hence the institutions continue to borrow gowns from other institutions for their academic ceremonies.

5.1.2 Objective 2: Design philosophies of the gowns

In examining the design philosophy underlying the various academic gowns for the technical universities, the study found that:

The philosophies of the technical universities are translated into their logos in the form of colours, emblems, and mottoes. The basic design philosophies of the technical universities' gowns revolve around their institutions' philosophies.

However, some of the gowns do not feature the logos and colours of their respective institutions, while others do. All management gowns except Takoradi Technical University gowns bear the full philosophy of their respective institutions in the form of colours and logos or only colours. While some gowns meant for convocation members who hold doctorate degrees or the rank of professors bear their institution's philosophy, for instance, at Sunyani, Tamale, and Takoradi Technical Universities, Accra Technical University gowns do not. For the convocation members with master's degrees, Accra Technical University gowns do not link their philosophies. Tamale and Takoradi Technical Universities gowns link their philosophies through the incorporation of their logos.

Kumasi Technical University has special gowns for its master of technology graduands. The gowns bear the full philosophy of the institution in the form of colours and logos.

The Bachelor of Technology gowns for Accra Technical University do not bear their philosophy; however, those of Sunyani and Takoradi Technical Universities do. While some of the Technical Universities' HND gowns bear the full philosophies of their institutions (i.e., Tamale and Takoradi), others, such as Accra, Cape Coast, Ho, and Kumasi, do not use their logos on their gowns. There are yet others who use only one of their colours and without a logo.

Some of the gowns feature kente front facings. Exemplary are the Accra Technical University HND and Bachelor of Technology gowns, as well as two of the Kumasi Technical University gowns HND gowns. The management gowns of Accra Technical University showcase front panels of adinkra symbols and logos; Sunyani Technical University has both kente and adinkra symbols, whereas Takoradi Technical University has only kente. These traditional communicative designs naturally link with the Ghanaian culture but their interpretations do not connect to the respective institution's philosophy.

There is a lack of detailed documentation on the gowns as regards design concepts and underlying interpretations of the institution's design philosophies. This makes the gown designs meaningless to gown wearers and observers.

5.1.3 Objective 3: Design Aesthetics

In investigating the aesthetic value of the various academic gowns in Ghanaian Technical Universities the study revealed that:

Academic robes worn by Technical Universities in Ghana were influenced by robes from traditional institutions in Ghana and elsewhere, and the designs have not varied significantly from Oxford patterns in terms of form and the accessories that go with them.

Almost all the various components of the gown designs at the various levels have been crafted to satisfy the sensory dimensions of apparel regarding line, proportionality, balance, size, shape, colour, texture, and others, except a few. All in all, the gown designs for the middle management and senior management appear more splendid and grander than the convocation gowns for the doctorate degree holders. Likewise, the convocation gowns for the doctorate degree holders and professors also appeared more elaborate than the student and convocation gowns for the master's degree holders.

Some of the gowns (HND, bachelor, convocation, and management gowns) display kente and adinkra patterns or only kente patterns, which mainly symbolises the institution's link with the Ghanaian cultural heritage and the environment in which such universities are situated. For those who use kente, in all cases, management gowns are festooned with expensive kente designs meant for the wealthy people in society. Except for the KsTU first and second HND gowns' front facings, ATU gowns (HND, bachelor, and convocation gowns for masters' holders) use the simple

kente designs. The inclusion of the kente in the gown designs adds significant splendour to the academic gowns.

Due to the inappropriate colour schemes or the absence of the institutions' insignias, some of the gowns cannot be linked to their institutions existence and therefore fall short of branding them, especially the Accra Technical University gowns below management. Almost all the management ceremonial dresses identify with their respective institutions' philosophies and exert their autonomy among their peers.

Politically, the gowns have been designed according to the status of the wearers. The more meticulous the design elaborations, the more authoritative the wearer. Hence, the HND, bachelor, and convocation gowns are less elaborate, while the convocation gowns for doctorates and professors, as well as management gowns, are exquisitely produced to accentuate the image of the institution. Additionally, senior management ceremonial gowns are more detailed and decorated than the middle line management gowns, and even among the senior management, there are inclusions like the strips on the shoulders and or colour differences to distinguish the various authorities except Takoradi Technical University management gowns. Generally, these design distinctions are shown in terms of colour codes, fabric quality, design details, and the inclusion of other insignias within a particular institution.

Socioculturally, the gown designs differ from one institution to the next mainly in terms of the designated colours, insignias, and mottoes (philosophies) of the institutions, but the forms are in general similar. Within the institutions, there are faculty and school dissimilarities among the gown designs that emphasise their respective core mandates, and these are usually showcased in colours and may be

shown with logos too. Some of the gowns identify with the society and the environment within which the institution is situated through the colours, fabric designs, and cultural symbolisms and iconographies that may be found in the logo designs. The society is attracted by the nature of the gown designs, and during academic ceremonies, people troop into the ceremonial grounds to observe the gowns and celebrate with the achievers with pomp and pageantry amidst parties and music. In countries like South Africa, Ph.D. gown wearers are celebrated by the people in society because they feel that the gown is connected to them.

Economically, the gown provides direct and indirect jobs to society. The students' and some convocation gowns provide a means of income generation for the institutions as they are rented out to interested institutions. During the academic celebrations, food vendors and other sellers, including photographers, make money out of the occasion. It also creates jobs for gown designers, producers, and suppliers, boosting the fashion and textile industries in Ghana.

Emotionally, graduands are highly elated in their gowns because it provides a source of satisfaction and pride for them to have completed their long years of schooling with its attendant ups and downs in their academic work. Therefore, most graduands would want to have photographs taken while in their gowns as souvenirs. Graduands who are unable to wear the gowns become highly disappointed. The gown also provides a source of motivation for would-be graduands to finish their projects on time so as to also wear them.

5.1.4 Objective 4: Perception of the wearers

The fourth objective determines the perception of the gown wearers from the various Technical Universities studied about their institution's academic gown designs, and the study showed that:

Regarding the symbolism of the gowns, participants described an academic gown as an object of attraction, a source of inspiration for students to finish their final year work on time in order to wear the gown, a source of fulfillment for the wearer as it represents a reward for effort and achievement, an essential piece of clothing for celebrating academic achievements, and a source of branding for the institution awarding the degree and the wearer.

There was a diversity of replies when it came to how satisfied each participant was with the Technical University gown designs (e.g., 42.4% satisfied; 34.9% dissatisfied; 22.7% somewhat satisfied). Those who were satisfied to some extent felt that the gown designs needed to be improved. Despite the fact that some participants were happy with the designs in terms of the front facings and the overall designs of some institutions, others were not, due to the Fabric Type, the overall design of their institutions' gowns, the deans' ceremonial apparel, the colour scheme, and several of the front facings' poor colour combinations. The majority of participants enjoyed the management's ceremonial outfits because of the superimposed nature of such designs.

5.1.5 Objective 5: Framework development

The fifth objective develops a framework for designing academic gowns for the Ghanaian Technical Universities based on the findings of the study.

The framework has been developed to help eliminate the identity crisis characteristic of the gown designs in Ghana, particularly in the technical universities. This is due to the lack of well-organised and comprehensive design processes and procedures. The stages of design that are suggested include thorough pre-design considerations, design development, implementation, and finally, efficient testing and evaluation procedures, all of which aim to produce an academic gown that is appropriate. Each stage must have thorough documentation that describes the tasks involved and the underlying design relevance of the different aspects of the gown designs in both text and images (Figure 66).



5.2 Conclusions

The technical universities did not have gowns for their first congregational ceremonies or the subsequent ones. In their attempt to follow the status quo of academic gown usage, they had to rent gowns from the traditional universities.

They started creating their own gowns between 2000 and 2010 on an incremental basis due to reasons such as identity challenges, the high cost of renting the gowns, and their penchant to use the gowns as income-generating ventures, among other factors. All technical university gown designs are preceded by management recommendations, and in the course of the various design stages, their input is sought.

While some have design teams, others depend on the expertise of the gown contractors to create the gowns. Those with a design team do not do proper design consultations to ensure holistic designs that will ensure an undistorted identity. Others do not have any design team but fall on the gown suppliers' advice with the input of management members who are not designers, resulting in gowns created without the needed underlying messages for public consumption.

All of them rent gowns to supplement what they have, except for management gowns. Whereas, six of them have HND gowns, three have bachelor gowns, three have convocation gowns for master's degree holders, four have convocation gowns for Ph.D. holders, and two have middle-level management gowns.

Over the years, there have been some modifications to the gowns. This could be seen in the components such as the fabric used, front-faced styles, sleeve type, headgear, hood, or general designs in order to achieve distinctive and acceptable designs.

Most of the gowns are outsourced to private gown contractors. This move normally comes with challenges like poor-quality designs and a reduced quantity of gowns as compared to the agreed number of gowns. Some of the reasons for the institutions outsourcing of their gowns result from the non-existence of the production units in the institutions and the understaffing of the fashion departments, resulting in a heavy workload on the staff. A lack of resources and a lack of trust in the staff of the fashion department are part of the reasons for outsourcing the gowns. Also, the corrupt practices of management members to make more money out of hiring from other institutions cannot be discounted in this regard.

Gowns were mostly made of foreign fabrics and, in some cases, a combination of foreign and local fabrics. In such combinations, the foreign fabrics were used for the main apparel, with the local fabrics used as the front-facing panels. Another gown was designed solely with local fabrics for the former rector of Tamale Polytechnic.

Due to a lack of funds for the production of more academic gowns, technical universities are faced with an insufficiency of gowns across the study areas. The lack of priority given to the gown designs by management is a cause of the inadequate gowns for the wearers. Technical universities need revenue to run their institutions. In order to generate revenue for their institutions, technical universities, like the early traditional universities in Ghana, rent out their gowns to other sister institutions, except the management gowns.

For the design philosophies underlying the gowns, the institutional identification is summarized in the institutions' crests, which essentially exhibit the designated colours, emblems, and mottoes reflecting the shared history, core values, and aspirations of the institution in question.

Interestingly, some of the institutions have annexed certain colours that are not found in their logos but are found on their gowns without revealing the philosophy behind them. Because some of them replicate the existing gown designs without recourse to their institution's philosophical inclinations, they are not able to make their gowns meaningful to their institutions' shared history, core values, and aspirations. This is due to the lack of knowledge of the designers in respect of the proper considerations, procedures, and processes required for designing the gowns.

The lack of knowledge of the institutions' management regarding the fundamental reasons for the gown designs, as well as commercialisation intent of management and the lack of consultation with the appropriate stakeholders and documentation by the design team, have affected the befitting nature of the academic gowns.

Some of the designs incorporate kente fabrics and adinkra symbols. These traditional communicative designs naturally link with Ghanaian culture, but their interpretations do not connect to their respective institutions' philosophy.

There is a lack of detailed documentation on the gown designs as regards design concepts and the underlying interpretation of the institution's design philosophy. This makes the gown designs meaningless to the gown wearers and observers.

In terms of the aesthetic values of the institutions' gowns, technical university gown designs basically take the form of the existing gowns. While some have been designed to satisfy the formal qualities of the sensory dimensions of garments, a few have not, especially the hood and cap of the students and some convocation gowns. This development can be blamed on the lack of expertise of the gown manufacturers in producing such components of the gowns.

Almost all the technical university gown design components are designed to satisfy the sensory dimensions of apparel, except for a few whose finishes need to be improved. Essentially, the management gowns' sensory qualities look exquisite due to the small number of gowns for management and how effective quality control is considered. In the case of the student's gowns, owing to their huge quantity, they suffer from poor supervision.

Both kente patterns and adinkra symbols, or only kente patterns or adinkra symbols, could be found on some of the academic gowns, basically to show the Ghanaian cultural dimensions of the gowns. Nonetheless, such designs have not been linked to the philosophies of such institutions and are made general so as to increase the chances of hiring them.

Management usually uses expensive kente fabrics meant for the wealthy people in society. However, KsTU's first and second HND front face kente design patterns are also for the rich in society, and those of ATU's HND gowns (first and second) are simpler, whereas the third one is complicated. The inclusion of the kente fabrics adds more splendour to the gown designs.

Again, while some gown designs can fully express their institutions' statements of existence, others are the opposite. Such gowns were not meticulously designed. Essentially, the gowns provide a huge advertising space locally and globally for the institutions in these days of stiff competition among the technical universities and between the technical universities and the traditional universities in terms of admissions. The inability of the gowns to brand the institutions is a design flaw emanating from a lack of understanding of the import of the gown designs and the institutions' penchant for creating gowns that can elicit internally generated revenue for them.

Politically, technical university gowns, like their traditional and foreign university counterparts, have been designed to satisfy the theory of status characteristics (i.e., HND, bachelor's, master's, Ph.D., management). The design differentiation lies in the size and length of the gown, quality of fabric, degree of details, and decorations, all of

which communicate the rank and status of the wearer. Whereas the management and Ph.D. are elaborately crafted, those below the Ph.D. look simply. Even among the senior management members, in most cases, there are identification marks to accentuate their respective offices jurisdiction. However, some of the gowns, particularly some of the management gowns, do not show status.

Many technical universities do not have customised gowns for the middle-level managers, such as the deans and the directors, who represent the interests of the faculties and institutes within the university setup. And those who have the gowns do not show clear design differences among them to accentuate their offices of jurisdiction. Again, there are no special gowns for associate and full professors.

Academic regalia are intended to demonstrate social affiliation both inside and between institutions using the designated colours, insignias, and mottoes of the institutions. Some of the gowns have been created with colours and symbols that are representative of the neighbourhood where the school is located. Others have no connection to their communities at all. It is possible to blame some of these designs on institutions' ignorance of the significance of the sociocultural relationship with gowns and the requirement to connect gown designs to society.

Economically, the gown provides direct and indirect jobs to society. The students' and some convocation gowns provide a means of income generation for the institutions as they are rented out to interested institutions. During the academic celebrations, food vendors and other sellers, including photographers, make money out of the occasion. It also creates jobs for gown designers, producers, and suppliers, boosting the fashion and textile industries in Ghana.

Graduands are happy in their gowns during the congregation ceremonies owing to the fact that they consider wearing the gown as a sign of consummation of their academic effort, and those who do not get the opportunity to wear the gown become utterly disappointed. Observers are also delighted to see the wearers in the gowns, such that some wish to wear the gowns in the future.

Given the perception of the institutions' gown wearers concerning their gowns, there was mixed satisfaction with the gown designs. The lack of satisfaction with gown designs was due to the design's irresponsive nature to the identities of the wearers, institutions, and their environment. It was due to the insufficiency of the gowns.

Given the absence of an appropriate design blueprint for academic gowns at the various study areas and, as a result, the fact that the designs are not unique, a framework has been developed that spells out the essentials for designing and producing academic gowns that are user- and identity-friendly and sustainable.

5.3 Recommendations

Technical universities still borrow academic gowns to supplement what they have, and this, in its wake, brings about identity challenges. It is important to eliminate this challenge by producing more customised gowns for gown wearers.

For the purpose of generating revenue for their institutions, technical universities rent out their gowns bearing all the identification marks, thereby deepening the identity crisis. It is recommended that gowns for renting be designed uncustomised so that the institutions to which the gowns are rented can add their customised stoles to them to identify them.

For the sake of identity, the institutions must concentrate on the need for customised gowns bearing the appropriate identity marks. In so doing, designers must take into consideration the identity of the wearer and the institution to which the wearer belongs, and wearers will be more satisfied to use them with prestige.

To produce distinctive and customised academic gowns that are responsive to the institutions' unique identities and highlight the inter- and intra-distinctions among the various gown users, a strong design team made up of design and art experts from the technical universities' arts departments must be commissioned.

The design team should consult books, periodicals, magazines, designers, gown wearers for whom the gowns are meant, and other opinion leaders in the communities so as to obtain detailed information about the qualities of the gowns and how best the gowns could be designed to represent the holistic identity of the wearer, institution, and community.

Additionally, academic institutions may run gown design competitions based on pre-established design briefs with the aim of selecting the best design—one that complements both the institution's overall identity and that of the wearer—for fabrication.

Most management and committee members lack knowledge of the gowns. Management and gown committee members must endeavour to update their knowledge on the basics of the gown designs in order to make meaningful contributions to the designs.

Most institutions lack the resources to produce their gowns in-house. Therefore, setting up well-resourced production facilities in the technical universities is crucial to enabling in-house production of the dresses and accessories.

The in-house method of gown production has the advantage of ensuring good-quality academic gown designs since members of the design team and management can monitor and implement rigorous quality control procedures for the purpose of producing an acceptable product, which will be nearly impossible in the case of outsourcing. Again, it can provide opportunities for students' practical work. Therefore, academic institutions should opt for in-house production as opposed to outsourcing to private contractors, which comes with a lot of challenges.

To provide feedback on the finished gowns, the involvement of management and other stakeholders is essential for determining the quality and acceptability of the gowns. Institutions can get input from their staff and students on the designs designed for them by hosting fashion shows and showcasing prototypes of the gowns. These people should understand the significance of the various gown designs so that they can make meaningful inputs.

Efforts must also be made to discourage dishonest leadership practices and many other factors that mitigate against producing the gowns in-house by the fashion production units of the various institutions.

The use of local materials and the creation of gowns by local fashion businesses can promote the growth of the fashion and textile sectors. This, in turn, can generate more jobs to support the government's "one district, one factory" programme.

Priority must be given to the creation of additional gowns by allocating more funding to the gowns and making enough specially made gowns at all levels in order to stop the identity crisis afflicting the technical universities in Ghana. Due to the fact that students pay to wear the gowns, the schools will not suffer from this decision.

As regards the design philosophy of the gowns, each institution's ideologies, made up colours and emblems, will be displayed on each gown. Because colours can be identical and hence make identification a challenge across institutions, it is important to include the logos or insignias on the gown designs to enhance proper identity. Therefore, institutions must sew their crests on their gowns for simple identification, recognition, and branding purposes.

In order to convey their beliefs, values, shared history and others, technical universities should, to the greatest extent feasible, adhere to their designated colours and insignias. If, for any reason, black or any other colour is to be used for the main apparel, then the crests and some of the colours of the institution in question must be embossed on the gown to facilitate identification.

The kente fabric patterns on some of the gowns give general denotations concerning Ghanaian culture but not the philosophy of such institutions. It is therefore important that the kente fabrics on the gowns be made institution specific in line with the philosophies of the institutions.

To establish some solid conceptual foundations and make the designs meaningful to the university communities and the general public, the design teams of the technical universities and, by extension, those of other universities must also ensure a conscious write-up on the conceptual basis and philosophical import of the various components

of the gowns. This will ensure that the gowns are interpreted in accordance with their respective write-ups but not the write-ups on the logos, which may lead to broad conclusions about the significance of the colours and symbols on the gowns.

Aesthetically, few of the gowns have been designed to satisfy the formal qualities of the sensory dimensions of garments, and this affects the gowns aesthetic qualities. Especially some of the hoods and caps need to be properly designed and produced to fit the intended purpose. Therefore, the designers and producers of academic gowns must be educated to sharpen their skills and expertise in this direction.

To achieve an appropriate finishing of the different components of the gowns, the required production techniques and procedures must be followed. In this case, appropriate colour codes and colour combinations on the gowns and the quality of the stitches must be ensured.

Since all the gowns essentially take the form of European and American patterns, it is incumbent on the technical university management and gown designers to alter the gown forms so that technical university gowns will be distinctly unique among their local and foreign counterparts. In this regard, inspiration can be drawn from the local and traditional garment styles when designing the gowns for the technical universities and, by extension, other university gowns in Ghana. Such designs will enrich the gowns' philosophical and aesthetic values. Osei-Poku (1999) and Peligah (2008) led the way in creating academic robes for KNUST and Tamale Technical University, respectively. As a result, technical universities must follow suit.

It is impossible to overstate how some of the gown designs used in technical universities lack institutional connectedness and autonomy. In order to build gowns

that can promote the institutions' social connectedness and autonomy among their peers, it is necessary for the institutions and designers to make deliberate efforts by combining the proper designated colors and insignias.

Given the fact that the academic gowns serve as an object of branding for the institutions locally and internationally, concerted efforts must be made to achieve that purpose. The appropriate identification marks and the aesthetic appeals must be sharpened to enhance the communicative value of the designs through the design and production processes of the gowns.

Though the kente and adinkra symbologies on the gowns facilitate the identification of the Ghanaian gowns and differentiate the Oxbridge gown designs from their Ghanaian contemporaries, also heightening the designs aesthetic power, the symbols have not been properly linked and localised to the institution's philosophies since their presence on the gowns signify a broader identity. It is therefore essential that the kente and/or adinkra designs be customised to be in tune with the philosophies of the institutions using them so as to enrich the expressive power of the gowns.

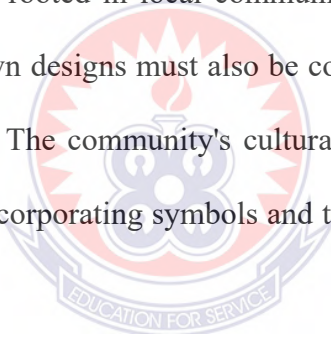
Some of the dresses were not created to highlight social class divisions. Particularly some of the formal managerial attire. Given that the primary purposes of gown designs are identity and recognition, it is crucial that the designs emphasize the wearers' status traits. Therefore, in order to clearly identify the precise state of the management members' offices of jurisdiction, proper identification markings are required.

The academic deans and directors of the institutions inside the technical universities must wear the proper robes that make their offices stand out among the faculties and

institutes and bear the jurisdiction of their offices. In this situation, faculty logos and colors can offer these distinctions. In addition, professorial robes must be worn to denote their ranks rather than the more common Ph.D. gowns, which can be worn by lecturers with Ph.D. credentials.

Graduands and other gown wearers would want to wear regalia displaying the institution's logos. The presence of the logos on the gowns adds a certain degree of aura to the aesthetic appeal of the garments, so it is apt to include the logos on the gowns. In addition, the logo serves as a communication tool for the institution with the public. Hence, academic institutions must display their logos on their gowns.

Academic institutions are rooted in local communities; thus, in order to maintain a complete identity, the gown designs must also be connected to the social and cultural context of the institution. The community's cultural connection with the institutions will be strengthened by incorporating symbols and textiles from the surroundings into the gown designs.



Economically, the academic gown designs benefit society by creating both direct and indirect jobs for people during academic ceremonies and along the value chain of the textile and apparel sector. The government must make an effort to create the favourable conditions needed for the development of the local textile and apparel sectors. To ensure a surge in the production of indigenous fabrics and accessories necessary for the gowns, the "one district, one factory" principle must be strengthened and expanded to cover all of Ghana's textile and apparel businesses.

For wearers to be delighted with the dresses, gown designs must be adaptable to their various needs. Such as ensuring that the gown components are designed to fit a

variety of body types. Comfortability and other factors, such as effective colour coordination, are also significant. It is thus required that the gowns be rigorously designed to be responsive to the identities and needs of the wearers, the institutions, and the environment.

For consultation and educational purposes, there must be documentation on the gown designs. A policy and standardisation of the gowns need to be established, and a blueprint needs to be created to regulate both current and future gown designs. The documentation must be properly maintained in records, and information on the gowns must be accessible as needed.

The significance of the gown and its use, including academic ceremonial customs, must be explained. This will help users of the gowns understand their importance and the appropriate way to wear them.

5.4 Further study

The intended purpose of this study was to examine the GTU gowns and offer recommendations for future academic gown design. The traditional universities in Ghana and elsewhere may be the subject of future investigations. Future studies can build on the findings and recommendations of this study to design distinctive, customised academic dresses for TUs in Ghana and other higher educational institutions around the world.

Once more, the academic robes were neither created nor constructed for this study. Researchers may choose a specific institution and develop for them while taking into

account the many difficulties brought up and the suggestions made. They can also test the proposed framework to establish its suitability.



REFERENCES

- Aboagyewaa-Ntiri, J., Campion, C.B., & Kemevor, A.K. (2018). Extension of knowledge on Ghanaian adinkra symbols in relation to Maslow's theory. *International Journal of African Society Culture and Tradition*, 6 (2), 25-38.
- Academic Dress Standards for the University of Sydney (2015). Retrieved, December 20, 2020 from <https://www.sydney.edu.au › students › documents>
- Academic Gowns at the University of Ghana (2014, June). Report of the committee set up to deliberate and advice on the matter of proliferation of Academic Gowns in the University of Ghana. (Unpublished).
- Adams, W. C. (2018). Conducting Semi-Structured Interviews. In K. E. Newcomer, H. H. P., & J. S. Wholey (Eds.), *Handbook of Practical Programme Evaluation* (4th ed., pp. 492–505). Jossy-Bass, A Wiley Imprint.
<https://doi.org/10.1002/9781119171386.ch19>
- Adîr, V., Adîr, G., & Pascu, N. E. (2012). Logo design and the corporate identity. *Procedia –Social and Behavioral Sciences*, 51, 650 – 654. [https://doi: 10.1016/j.sbspro.2012.08.218](https://doi.org/10.1016/j.sbspro.2012.08.218)
- Adîr, V., Adîr, G. & Pascu, N., E. (2014). How to design a logo. 2nd World Conference on Design, Arts and Education DAE-2013, *Procedia - Social and Behavioral Sciences*, 122, 140 – 144. [https://doi: 10.1016/j.sbspro.2014.01.1316](https://doi.org/10.1016/j.sbspro.2014.01.1316)
- Agbo, A. H. (2006). *Values of adinkra symbols*. Bigshy Design and Publications, KNUST, Kumasi.

- Agbo, H.A. (2011). *Values of adinkra symbols: Kumasi*. Delta Designs and Publications.
- Akdemir, N. (2018). Visible expression of social identity: The clothing and fashion. *Gaziantep University Journal of Social Sciences*, 17 (4), 1389-1397. <https://doi.org/10.21547/jss.411181>
- Alemnge, F.L., & Andongaba, B.A. (2021). The impact of teaching methods and materials on the teaching of citizenship education in Cameroon: A study of case schools in Buea Municipality. *Open Access Library Journal*, 8, e6993. <https://doi.org/10.4236/oalib.110699>
- Allen, M. (2017). *The sage encyclopedia of communication research methods* (Vols. 1-4). Sage Publications Inc. [https://doi: 10.4135/9781483381411](https://doi.org/10.4135/9781483381411)
- Amin, M. E. K., Norgaard, L. S., Cavaco, A. M., Witry, M. J., Hillman, L., Cernasev, A., & Desselle, S. P. (2020). Establishing trustworthiness and authenticity in qualitative pharmacy research. *Research in Social & Administrative Pharmacy*, 16 (10), 1472–1482. <https://doi.org/10.1016/j.sapharm.2020.02.005>
- Amissah, E.R.K. (2016). Philosophical and aesthetic significance of ceremonial and anniversary cloth designs of three Ghanaian Universities. *Journal of Literature and Art Studies*, 6 (11), 1382-1395. [https:// doi.10.17265/2159-5836/2016.11.010](https://doi.org/10.17265/2159-5836/2016.11.010)
- Amissah, E.R.K. (2009). *Ceremonial and anniversary cloths of selected institutions in Ghana: An appraisal*. [Doctoral thesis], Kwame Nkrumah University of Science and Technology, Ghana. [dspace.knust.edu.gh>bitstream](http://dspace.knust.edu.gh/bitstream).

- Amoakoh, M.A., Koranteng S. A. & Nketiah V. A. (2006). *Official academic robes for the six provosts in Kwame Nkrumah University of Science and Technology* [Unpublished Bachelor project] Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
- Armagost, R. (2009). University uniforms: The standardization of academic dress in the United States. *Transactions of the Burgon Society*, 9, 139-155.
<https://doi.org/10.4148/2475-7799.1074>
- Annku, M. F. and Mireku-Gyimah, D. (2009). Symbolism of UMaT's emblem, flag and ceremonial mace - Conglomeration of the University's essence and aspirations. *Ghana Mining Journal* 11, 69 - 74.
<https://doi10.4314/gm.v11i1.53275>
- Aspers, P., & Corte, U. (2019). What is Qualitative in Qualitative Research. *Qualitative Sociology*, <https://doi.org/10.1007/s11133-019-9413-7>
- Axelrod, R., & William H. (1981). The evolution of cooperation, *Science*, 211, 1390–1396. <http://www.personal.umich.edu/~axe/research/Axelrod%20and%20Hamilton%20EC%201981.pdf>
- Bach, H. (2008). *Visual narrative inquiry*. In L. M. Given (Ed.). *The Sage Encyclopedia of Qualitative Research Methods*. (pp. 939 – 941).
<http://dx.doi.org/10.4135/9781412963909.n490>
- Badoe, W. & Opoku-Asare, N.A. (2014). Structural patterns in Asante Kente: An indigenous instructional resource for design education in textiles. *Journal of Education and Practice*, 5(25),55-63 www.iiste.org

- Bamford C., Lee R., McLellan E., Poole, M., Harrison-Dening, K. Hughes, J. Louise
Robinson, L. and Exley, C. (2018). What enables good end of life care for people with dementia? A multi-method qualitative study with key stakeholders. *BioMed Central Geriatrics* 18, 302. <https://doi.org/10.1186/s12877-018-0983-0> pp 1-15
- Banks, M. (2018). *Using visual data in qualitative research*. London: Sage publications Ltd. <https://dxdoi.org/10.4135/9781526445933n6>
- Barrow, C. W. (2000). Economic Impacts of the Textile and Apparel Industries in Massachusetts. *Textiles & Apparel Economic Development*, June.
- Bartlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organisational research: Determining appropriate sample size in survey research. *Information Technology, Learning, and Performance Journal*, 19 (1), 1-8.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13 (4), 544-559. <https://dxdoi.org/10.4135/9781526445933n6>
- Bazin, Y. (2013). Dressing professional, an aesthetic experience of professions. *Society and Business Review*, 8 (3), 251-268. <https://doi.org/10.1108/SBR-04-2013-0031>
- Bendassolli, P.F. (2013). Theory building in qualitative research: Reconsidering the problem of induction. *Forum: Qualitative Social Research*. 14 (1). <https://doi.org/10.17169/fqs-14.1.1851>

- Berghman, M., & Hekkert, P. (2017). Towards a unified model of aesthetic pleasure in Design. *New Ideas in Psychology*, 47, 136-144.
<http://dx.doi.org/10.1016/j.newideapsych.2017.03.004>
- Bethke, A-J. (2022). A historical overview and description of the University of KwaZulu-Natal's ceremonial and academic attire," *Transactions of the Burgon Society*: 21. <https://doi.org/10.4148/2475-7799.1194>
- Biederman I., & Vessel E. (2006). Perceptual pleasure and the brain: A novel theory explains why the brain craves information and seeks it through the senses. *American Scientist*, 94 (3), 247-253. [https:// doi: 10.1511/2006.59.247](https://doi.org/10.1511/2006.59.247)
- Bleakley, A. (2005). Stories as data, data as stories: Making sense of narrative inquiry in clinical education. *Med Educ*. 39 (5), 534-540. [https://doi: 10.1111/j.1365-2929.2005.02126.x](https://doi.org/10.1111/j.1365-2929.2005.02126.x).
- Bloch, P., Brunel, F. & Arnold, T. (2003). Individual differences in the centrality of visual product aesthetics: Concept and measurement. *Journal of Consumer Research*, 29 (4), 551- 565. [https://doi:10.1086/346250](https://doi.org/10.1086/346250)
- Blumer, H. (1969). *Symbolic interactionism: Perspective and method*. Berkeley: University of California Press.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Harvard University Press.
- Brooke-Little, J. (1973). *A heraldic alphabet*. Macdonald, London. 2.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.

Burney, S.M.A., & Saleem, H. (2008). Inductive and deductive research approach.

Lecture delivered on 06-03-2008 at Auditorium of Faculty of Arts and Science, University of Karachi, Karachi, Pakistan.

<https://www.researchgate.net/publication/330350434>.

Butina, M. (2015). A Narrative Approach to Qualitative Inquiry. *American Society for Clinical Laboratory Science*. 28 (3), 190-196.

<https://doi.org/10.29074/ascls.28.3.190>

Cambridge University. (n.d.). academic gowns for the bachelors, masters and doctorate [Photographs]. Retrieved from [cambridge university academic gowns – Bing images](#)

Cambridge University. (n.d.). Academic gown and hoods for Master of Arts

[Photographs]. Retrieved from [cambridge university academic gowns - Bing images - Google Search](#)

Cape Coast Technical University. (2022). Special Gazette: Proceedings of the 18th

Congregation [Photographs]. Directorate of Public Affairs. 1 (1),

<https://cctu.edu.gh/site/cms/app/uploads/doc/2446703.pdf>

Carcary, M. (2009). The research audit trail–Enhancing trustworthiness in qualitative inquiry. *Electron Journal of Business Resource*. 7, 11
24. <http://www.ejbrm.com>

- Cerrato, H. (2012). The meaning of colours. How colours impact our life in business, art, work, and love. <https://blocs.xtec.cat/gemmasalvia1617/files/2017/02/the-meaning-of-colors-book.pdf>
- Channa, H., & Sajid, S. S. (2020). The Factors of Customer Satisfaction Driving Purchase in Textile Business: The Case study of Denim Garments from Pakistan. *International Journal of Applied Business and Management Studies*, 5(2), 81–103.
- Charmaz, K. (2008). Reconstructing grounded theory. In: Alasuutari, P., Brannen, J., Bickman, L. (Eds.), *The SAGE Handbook of Social Research Methods*. SAGE
- Charmaz, K. (2014). *Constructing grounded theory: A practical guide through qualitative analysis* (2nd ed.). London: Sage.
- Cheesman, C. (2014). *Heraldry. The International Encyclopedia of Communication*. Donsbach, Wolfgang (Ed). Blackwell Publishing.
- Christianson, B. (2006). *Academic dress in the University of Hertfordshire*. (2nd ed.). Revised and extended. *Marketing and Communications, University of Hertfordshire*. pp. 1-32, Retrieved on August 7, 2020 from <https://uhra.herts.ac.uk ›pdf>.
- Churchill, Jr., G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research* (pre-1986), 16 (1), 64-73. https://statmath.wu.ac.at/~salzberger/quantmeth/pdfdownloaddirectory/othermaterial/Churchill1979_JMR.pdf

- Ciesielska, Malgorzata, Boström, K. W., & Öhlander, M. (2018). Observation Methods. In M. Ciesielska & D. Jemielniak (Eds.), *Qualitative Methodologies in Organization Studies* (pp. 33–52). <https://doi.org/10.1007/978-3-319-65442-3>
- Collins Dictionary (n.d.). Crest definition and meaning. Retrieved from [Crest definition and meaning | Collins English Dictionary \(collinsdictionary.com\)](https://www.collinsdictionary.com/definition-and-meaning/Crest)
- Cook, R. (n.d.). Are you recording this? – the case for audio recording of interviews. Retrieved April 24, 2021 from [https://cdn.ymaws.com > resource > collection A...](https://cdn.ymaws.com/resource/collection/A...)
- Cox, N. (2001). Academical dress in New Zealand, *Transactions of the Burgon Society, I*, 15–24. <https://doi.org/10.4148/2475-7799.1003>
- Crawford, K. (2014). From concept to ceremony: Insights into the design and making processes for officers' robes of the University of Divinity, Melbourne. *Transactions of the Burgon Society, 14*, 88-93. <https://doi.10.4148/2575-7799.1121>
- Creswell, J.W., & Plano Clark, V.L. (2007). *Designing and conducting mixed methods research*. Sage Publications.
- Creswell, J. (2012). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Sage Publications, Inc
- Creswell, J. W. (2015). *A concise introduction to mixed methods research*. SAGE Publications.

- Creusen, M. E. H., & Schoormans, J. P. L. (2005). The different roles of product appearance in consumer choice. *Journal of Product Innovation Management*, 22 (1), 63–81. <https://doi:10.1111/j.0737-6782.2005.00103>.
- Crouch, M., & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. *Social Science Information*, 45 (4), 483–99. <https://doi.10.1177/0539018406069584>
- Cruz, A. V. (2015). *Relationship between product quality and customer satisfaction in the U.S. Automobile Industry*. [Doctoral thesis] Walden University. [https://Relationship between product quality and customer satisfaction \(waldenu.edu\)](https://Relationship%20between%20product%20quality%20and%20customer%20satisfaction%20(waldenu.edu))
- Datko, J. (2015). Semi-structured Interview in Language Pedagogy Research. *Journal of Language and Cultural Education*, 3(2), 142–156. <https://doi.org/10.1515/jolace-2015-0009>
- Davis, F. (1992). *Fashion, culture, and identity*. University of Chicago Press.
- De Klerk, H. M., & Lubbe, S. J. (2004). The role of aesthetics in consumers' evaluation of apparel quality: A conceptual framework. *Journal of Family Ecology and Consumer Sciences*. 32, 1-7. <https://www.ajol.info › jfec › article › view>
- Design Action Collective. (2011). (1st ed.). Retrieved April 10, 2021 from https://designaction.org/wp-content/uploads/2011/12/logo-book_final.pdf
- Dill, D.D. (1982). The management of academic culture: Notes on the management of meaning and social integration. *Higher Education*, 11 (3), 303-320 DOI:[10.1007/BF00155621](https://doi.org/10.1007/BF00155621)

- Dimitriadis, Z.S. (2006). Customer satisfaction, loyalty and commitment in service organizations: Some evidence from Greece. *Management Research News*, 29 (12), 782800. <https://doi.org/10.1108/01409170610717817>
- Dinçer, Ö. (2004). Stratejik yönetim ve işletme politikası. İstanbul: Beta Yayınları.
- Donkor, E. K., Micah, V. K. B., & Ankrah, O. (2020). Heraldic crest of Takoradi Technical University- An artistic and esoteric approach. *Journal of African Arts & Culture*, 4 (4), 71 – 96. <https://www.researchgate.net/publication/350907681>
- Ekanayake, S., Ahmad, F., & McKenzie K. (2012). Qualitative cross-sectional study of the perceived causes of depression in South Asian origin women in Toronto. *BMJ Open*, 1-7. <http://doi:10.1136/bmjopen-2011-000641>
- Emmel, N. (2013). *Sampling and choosing cases in qualitative research. A realist approach*. Sage.
- Eren, E. (2005). Stratejik yönetim ve işletme politikaları. İstanbul: Beta Yayınları.
- Erkan, V. (2008). Kamu kuruluşlarında stratejik planlama. Türkiye uygulaması ve kuruluşlarda başarıyı etkileyen faktörler. Ankara: DPT Yayınları.
- Essel, O. Q., & Opoku-Mensah, I. (2014). Pan-African artistic reflections in Kwame Nkrumah memorial park. *International Journal of African Society Cultures and Traditions*, 1(2), 30-41.
- Essel, O.Q., & Kemevor, A.K. (2016). Aesthetical tastes of academical and traditional costumes in academic processions. *Fashion and Textiles*. 3 (1), 1-8. <https://doi.org/10.1186/s40691-015-0053-6>

- Essel, O.Q. (2017). *Searchlight on Ghanaian iconic creative hands in the world of dress fashion design culture*. [PhD thesis] University of Education, Winneba-Ghana.
- Essel, O.Q. (2021). Historical and sociocultural relevance of royal ‘Ahenema’ sandals in Asante culture. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 26
- Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal Research*, 5(6), 215–217. <https://doi.org/10.15406/bbij.2017.05.00149>
- Fingeld-Connett, D. (2010). Generalizability and transferability of meta-synthesis research findings. *Journal of Advanced Nursing*. 66, 246–54. [https://doi: 10.1111/j.1365-2648.2009.05250.x](https://doi:10.1111/j.1365-2648.2009.05250.x)
- Flick, U. (2014). *Introduction to qualitative research* (5th ed.). Sage.
- Francis, J. J., Johnston, M., Robertson, C., Glidewell, L., Entwistle, V., Eccles, M. P., & Grimshaw, J. M. (2010). What is an adequate sample size? Operationalising data saturation for theory-based interview studies. *Psychology and Health*, 25 (10), 1229–1245. [https://doi: 10.1080/08870440903194015](https://doi:10.1080/08870440903194015)
- Fusch, P., Fusch, G. E., & Ness, L. R. (2018). Denzin’s paradigm shift: Revisiting triangulation in qualitative research. *Journal of Social Change*, 10 (1), 19-32. [https://doi: 10.5590/JOSC.2018.10.1.02](https://doi:10.5590/JOSC.2018.10.1.02)
- Ghafouri, R., & Sudabeh Ofoghi, S. (2016). Trustworth and rigour in qualitative research. *International Journal of Advanced Biotechnology and Research (IJBR)* 7 (4), 1914-1922. <http://www.bipublication.com>

- Goodman, T. A. (2019). The academic dress of the University of Birmingham.
<https://doi.org/10.13140/RG.2.2.31027.37922>
- Grooves, N., & Christianson, B. (2004). Wearing mummy's clothes: An introduction to academical archeology. *Transactions of Burgon Society*, 4, 42-43.
<https://doi.org/10.414822475-7799.1028>
- Grooves, N. (2014). The academic robes of graduates of University of Cambridge from the end of the eighteenth century to the present day. *Transaction of the Burgon Society*, 13 (2013), 74-100. <https://doi.org/10.414822475-7799.1110>
- Grossoehme, D.H. (2014). Overview of Qualitative Research. *Journal of Health Care Chaplaincy*, 20, 109-122. <https://doi.org/10.1080/08854726.2014.925660>
- Guest, G., Bunce, A., & Johnson, L (2006). How many interviews are enough? An experiment with data saturation and variability, *Field Methods* 18 (1), 59-82
<https://doi.org/10.1177/1525822X05279903>
- Gunawan, J. (2015). Ensuring Trustworthiness in Qualitative Research. *Belitung Nursing Journal*, 1 (1), 10-11. <http://belitungraya.org/BRP/index.php/bnj/>
- Gupta, T. (n.d). Clove model- Proposed methodological model for research in craft and fashion history. https://www.academia.edu/es/36085536/Title_Clove...
- Haloway, I., & Wheeler, S. (2002). *Qualitative in nursing* (2nd ed.). Blackwell Science.
- Harvard University. (n.d). Academic gowns for bachelor, masters and doctorate degrees [photographs]. Retrieved from [academic dress harvard - Google Search](#)

Harvard University. (n.d.). Academic gown for doctorate and the University President

[Photograph]. Retrieved from [academic dress of harvard university president - Google Search](#)

Heale, R. & Twycross, A. (2017). What is a case study? *Evidence- Based Nursing*, 21 (1), 7-8. <https://doi.org/10.1136/eb-2017-102845>.

Hekkert, P.P.M. (2006). Design aesthetics: Principles of pleasure in design. *Psychology Science*, 48 (2), 157 – 172. https://pure.tudelft.nl/ws/portalfiles/portal/54686438/Hekkert_P._Design_aesthetics_principles_of_pleasure_in_design.pdf

Higginbottom, G.M. (2004). Sampling issues in qualitative research. *Nurse Res.* 12 (1), 7-19. <https://doi.org/10.7748/nr2004.07.12.1.7.c5927>

Hill, C. E., Thompson, B. J., & Williams, E. N. (1997). A guide to conducting consensual qualitative research. *The Counseling Psychologist*, 25 (4), 517–572. <https://doi.org/10.1177/0011000097254001>

Hoffmann, N. A. (2009). Crow's feet and crimson: Academic dress at Harvard, *Transactions of the Burgon Society*: 9 (3), 38–58, <https://doi.org/10.4148/2475-7799.1071>.

Hornsey, M. J. (2008). Social identity theory and self-categorization theory: A historical review. *Social and Personality Psychology Compass* 2 (1), 204–222. <https://doi.org/10.1111/j.1751-9004.2007.00066.x>

- Howard, P. M. A., Simpson, K. B., & Peligah, Y. . (2015). Assessing Wearers ' / Observers ' Understanding of the Ceremonial Significance of Academic Procession and Dress in Tertiary Institutions : Evidence from Kumasi Polytechnic. *Arts and Design Studies*, 36(2014), 5–21.
- Howard, P.M.A., Essuman, M.A., Asare, T. O., & Simpson K. B. (2019). The need for customised academic dresses for the Tertiary Institutions in Ghana: A study of Kumasi Technical University community. *American Journal of Art and Design*. 4 (3), 31-40. <https://doi: 10.11648/j.ajad.20190403.12>
- Institutions crest (n.d.). Crest of some Ghanaian traditional universities [Photographs].
Retrieved from
<https://www.bing.com/images/search?q=university+of+ghana+crest&id=EB940F8A75D54E83564C85C4B896B58FB0D220CD&form=IQFRBA&first=1&disoverlay=>
- Jackson, N. (2008). The development of academic dress in the University of Warwick. *Transactions of the Burgon Society*, 8 (2), 10 -59.
<https://doi.org/10.4148/2475-7799.1061>
- Järvinen, M., & Mik-Meyer, N. (2020). Analysing qualitative data in social science. In M. Järvinen, & N. Mik-Meyer (Eds.), *Qualitative Analysis: Eight approach or the social sciences*, pp. 1–28. SAGE Publications.
- Johnson K., Lennon, S. J., & Rudd, N. (2014). Dress, body and self: Research in the social psychology of dress. *Fashion and Textiles*, 1 (20), 1-24.
<http://link.springer.com/article/10.1186/s40691-014-0020-7>.

- Kang, H., Kim, H., Kim, J., & Kim, Y. (2012). Development of academic dress with University identity for Dankook University. *Archives of Design Research*, 25(5), 121-131
- Kawulich, B. B. (2012). Collecting data through observation. In: C. Wagner, B. Kawulich, & M. Garner. (Eds). *Doing social research: A global context* (pp 150 -160). McGraw Hill.
- Kaiser, S.B. (1997). *The social psychology of clothing: Symbolic appearances in context*. New York: Fairchild
- Keane, J., & Willem, D. (2008). *The role of textile and clothing industries in growth and development strategies*. May, 1–71.
- Kim, N. (2006). A history of design theory in art education. *The Journal of Aesthetic Education*, 40 (2), 12–28. <https://eric.ed.gov/?id=EJ750798>
- Kinkel, S., Jager, A., Horvath, D., & Reider, B. (2016). The effects of in-house manufacturing and outsourcing on companies' profits and productivity. *Conference Paper*, 1-10. <http://www.researchgate.net/publication/304489247>
- Kissi, S.B., Fening, P.A., & Asante E.A. (2019). The philisophy of adinkra symbols in Asante textiles, jewellery and other art forms. *Journal of Asian Scientific Research*, 9 (4), 29-39. <https://doi:10.18488/journal.2.2019.94.29.39>
- Kroeze, J. H. (2012). Postmodernism, interpretivism, and formal ontologies. In M. Mora, O. Gelman, A. Steenkamp & M.S. Raisinghani, (Eds.), *Research methodologies, innovations and philosophies in software systems engineering and information systems*, (Chapter 3), pp. 43, Igi Global

Kumar, R. (2005). *Research methodology: A step-by-step guide for beginners*. London: SAGE.

Kumari, K. (2013). Outsourcing vs insourcing: Best for your organization? *International Journal of Management (IJM)*, 4 (4), 65-74.
www.iaeme.com/ijm.asp

Kumasi Technical University. (2020). Kumasi technical university holds 15th congregation [Photograph]. Retrieved from <https://kstu.edu.gh/media/articles/kumasi-technical-university-holds-15th-congregation>

Kumasi Technical University (n.d.) Image Displaying a Mixture of KsTU Gowns with Kente Front Facings and Hired Gowns with Different Coloured Satin Front Facings from KNUST During the 13th Congregation Ceremony of KsTU [Photograph]. Retrieved from [13th Congregation | Kumasi Technical University \(kstu.edu.gh\)](https://kstu.edu.gh/media/articles/13th-Congregation-Kumasi-Technical-University)

Kuwornu-Adjaottor J. E. T., Appiah G., & Nartey, M. (2016). The philosophy behind some Adinkra symbols and their communicative values in Akan. *Philosophical Papers and Review*, 7 (3), 22-33.
<https://doi.org/10.5897/PPR2015.0117>

LaBat, K.L., & Sokolowski, S.L. (1999). A three-stage design process applied to an industry-university textile design project. *Clothing and Textile Research Journal*, 17 (1), 11-20. <https://doi.org/10.1177/0887302X9901700102>

- Lamb, J. M., & Kallal, M. J. (1992). A conceptual framework for apparel design. *Clothing and Textile Research Journal*, 10 (2), 42-47. <https://doi.org/10.1177/0887302X9201000207>
- Lancaster, J. (2016). Dressing by degrees: Academic dress in British Columbia 1866-1966, *Transactions of the Burgon Society*, 16, 30-55. <https://doi.10.4148/2475-7779.1139>
- Larsson, S.P. (2014). Do you see what I see? A cross-cultural study on interpretation of clothing as a non-verbal signal. [Master thesis]. Gothenburg, Sweden. Retrieved April 18, 2021 from <https://gupea.ub.gu.se> > ... > Master theses
- Leal Filho, W., Ellams, D., Han, S., Tyler, D., Boiten, V., Paço, A., Moora, H., & Balogun, A.-L. (2019). A Review of the socio-economic advantages of textile recycling. *Journal of Cleaner Production*, 218, 10–20. <https://doi.org/https://doi.org/10.1016/j.jclepro.2019.01.210>
- Leavy, P. (2017). *Research design. Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. The Guilford press. <https://lms.su.edu.pk> > download > filename=16068...
- Lees-Maffei, G. (2016). *Design History_ The State of the Art*. <https://doi.org/http://dx.doi.org/10.3202/caa.reviews.2016.153>
- Leung, L. (2015). Validity, reliability, and generalizability in qualitative research. *Journal of Family Medicine Primary Care*. 4 (3), 324–327. [https://doi: 10.4103/2249-4863.161306](https://doi:10.4103/2249-4863.161306)
- Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry* 7, 24–25. <https://doi:10.1038/sj.ebd.6400375>

- Lloyd, K. (2017). Kente cloth: Everything you need to know about kente. Retrieved, January 14, 2021 from <https://www.kentecloth.net> › 2017/04 › kentecloth
- Logo design basics (2017) pdf. Retrieved, April 10, 2021 from http://www2.latech.edu/~htims/STEM_Discovery/design_files/Logo_Design_Basics_2017.pdf
- Logos (n.d.) Images of institutions and company logos. [Photographs]. Retrieved from [school logos \(Ghana\) - Bing images and logo - Bing images - Google Search](#)
- Lopes, A. M. (2015). *Aesthetic, aesthetic theories*. In book: *Bloomsbury encyclopaedia of design* (pp.17-21. Bloomsbury Editors: Clive Edwards.
- McCracken, G. (1986). Culture and Consumption: A Theoretical Account of the Structure and Movement of the Cultural Meaning of Consumer Goods. *Journal of Consumer Research* , 13 (1), 71-84.
- Major, N.B., & Omenu, F. (2016). Records management in higher educational institutions in Bayelsa State: Implications for school administration. *World Scientific News* 26, 11-20. [https://Records Management in Higher Educational Institutions in Bayelsa State: Implications for School Administration \(infona.pl\)](https://Records Management in Higher Educational Institutions in Bayelsa State: Implications for School Administration (infona.pl))
- Markham, T., & Couldry, N. (2007). Tracking the reflexivity of the (dis)engaged citizen: Some methodological reflections. *Qualitative Inquiry*, 13, 675–695. <https://doi:10.1177/1077800407301182>
- Mason, J. (2002). *Qualitative researching* (2nd ed.). London: Sage.
- Medieval Heraldry (n.d.). Parts of medieval heraldry [Photograph]. Retrieved from [medieval heraldry - Bing images](#)

- Merkens, H. (2004). Selection procedures, sampling, case construction. In U. Flick, E. von Kardorff and I. Steinke (Eds.), *A companion to qualitative research* (pp. 165–171) London: Sage.
- Monrouxe, L. V. (2009). Negotiating professional identities: Dominant and contesting narratives in medical students' longitudinal audio diaries. *Current Narratives*, 1, 41–59. <https://doi.org/10.1111/j.1365-2923.2009.03440.x>
- Morgan, H. (2022). Conducting a Qualitative Document Analysis. *The Qualitative Report*, 27(1), 64–77. [https://doi.org/https://doi.org/10.46743/2160-3715/2022.5044](https://doi.org/10.46743/2160-3715/2022.5044)
- Morphew, C. C., & Hartley, M. (2006). Mission statements: A thematic analysis of rhetoric across institutional type. *Journal of Higher Education*, 77, 456-471. <https://doi.org/10.1353/jhe.2006.0025>
- Mueller-Roterberg, C. (2018). Handbook of design thinking: Tips & tools for how to design thinking. Ebook_kindle_excerpt. Retrieved on May 1, 2020 from <https://www.researchgate.net/publication/329310644>
- Nachmias, C. F., & Nachmias, D. (2008). *Research methods in the social sciences* (7th ed.). Worth.
- Naderifar, N., Goli, H., & Ghaljaie, F. (2017). Snowball Sampling: A Purposeful Method of Sampling in Qualitative Research. *Strides Dev Med Educ.* 14 (3), 1-6: e67670. <https://doi.org/10.5812/sdme.67670>
- National University of Ireland (2006). *Academic dress of the National University of Ireland*. <https://www.nui.ie/publications/docs/academicDressBooklet>.

- Ndetei, C. (2021). Adinkra symbols explained: Meaning, origin, spiritual significance, and style variations. <https://yen.com.gh/109014-adinkra-symbols-and-their-meanings.html>
- Neumann, J.L. (2011). *Fashioning the self: Performance, identity and difference*. Electronic Theses and Dissertations. 475. <https://digitalcommons.du.edu/etd/475>
- Newton, L.E. (2014). Factors influencing the evolution of academic dress at the Kenyatta University, Kenya, *Transactions of the Burgon Society*, 13, 8-27. <https://doi.org/10.4148/2475-7799.1106>
- Nimkulrat, (2012). Hands-on intellect: Integrating craft practice into design research. *International Journal of Design*, 6 (3), 1-14. <http://www.ijdesign.org/index.php/IJDesign/article/view/1228>
- Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidenced Based Nursing*, 18 (2), 34-35. <https://doi/10.1136/eb-2015-102054>
- North, A.J.P. (2014). The development of academic dress of the university of Oxford 1920 -2012. *Transactions of the Burgon Society*, 13, 101-141. <https://doi.org/10.414822475-7799.1111>
- Nowlin, B. M. (2009). *The influence of mission statements on select aspects of organizational decision making by executive directors of California State University nonprofit charitable foundations*. Pepperdine University, California, (Unpublished doctoral dissertation). Retrieved March 20, 2021 from <https://digitalcommons.pepperdine.edu/cgi/viewcontent.cgi?article=1028&context=etd>

Office of the Registrar (2020). Academic regalia. Oklahoma State University.

Retrieved, August 7, 2020 from

registrar.okstate.edu/commencement/academic_regalia.html

Ogwo, E.T., Gerishon K., Nyamwaka. E., & Nyakan, B. (2013). Philosophy as a key instrument in establishing curriculum, educational policy, objectives, goals of education, vision and mission of education. *Journal of Education and Practice*, 4 (11), 95-101.

<https://www.iiste.org/Journals/index.php/JEP/article/viewFile/6452/6457>

Olesen, J. (2013). Colour meanings. Retrieved December 27, 2022 from

<https://www.colormeans.com/about-me>

Onwuegbuzie, A. J., & Leech, N.L. (2005). The role of sampling in qualitative research. *Academic Exchange Quarterly*, 9, 280-285. <https://www.thefreelibrary.com> > The+role+of+samplin

Osei-Poku, P. (1999). *Academic robes for University of Science and Technology, Kumasi*. [Unpublished Doctoral thesis], University of Science and Technology, Kumasi, Ghana.

Oxford University. (n.d.). Academic gowns for the Bachelor graduands [Photographs]. Retrieved from [academic dress oxford - Google Search](#)

Oxford University. (n.d.). Academic dress for the Master of Arts, Doctor of Divinity and Doctor of Music [Photographs]. Retrieved from [academic dress oxford - Google Search](#)

Oxford University. (n.d.). Ceremonial gown for the Oxford university Chancellor [Photograph]. Retrieved from [academic dress oxford - Google Search](#)

- Palakshappa, N., & Gordon, M.E. (2006). Using a multi-method qualitative approach to examine collaborative relationships. *Qualitative market research. An International Journal* 9 (4), 389-403. <https://doi.10.1108/13522750610689104>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., and Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42 (5), 533–44. [https://doi: 10.1007/s10488-013-0528-y](https://doi:10.1007/s10488-013-0528-y)
- Parasuraman, A., Grewal, D., & Krishnan, R. (2004). *Marketing research*. Houghton Mifflin.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods*. (3rd ed.). Sage Publications, Inc.-Science and Education Publishing
- Patton, M. Q. (2015). *Qualitative evaluation and research methods* (4th ed.). Sage.
- Pham, B. (1999). Design for aesthetics: Interactions of design variables and aesthetic properties. *Electronic Imaging*. <https://doi.10.1117/12.348457>
- Pope, C., Ziebland, S., & May, N. (Eds.) (2000). Qualitative research in health care: Analysing data. 320, 114-116. BMJ Books. [http://doi: 10.1136/bmj.320.7227.114](http://doi:10.1136/bmj.320.7227.114)
- Quarcoo, A.K. (1994). *The language of adinkra patterns*. Legon: University of Ghana.

- Quintão C., Andrade, P., & Almeida, F. (2020). How to improve the validity and reliability of a case study approach? *Journal of Interdisciplinary Studies in Education*. 9 (2), 264-275. <https://ojed.org/jise>
- Quy, D.C. (2020). An overview of the history of academic dress of the University of Exeter. *Transactions of the Burgon Society*, 19, 38-54. <https://doi.org/10.4148/2475-7799.1163>
- Rana, J., Dilshad, S., & Ahsan M. A. (2021). *Ethical issues in research*. 1-7. https://doi.10.1007/978-3-319-31816-5_462-1.
- Riello, G. (2011). The object of fashion: Methodological approaches to the history of fashion, *Journal of Aesthetics & Culture*, 3 (1), 1-9. <https://doi.org/10.3402/jac.v3i0.8865>
- Roach-Higgins, M. E. & Eicher, J. (1992). Dress and identity. *Clothing and Textiles Research Journal*, 10 (4), 1- 8. <https://doi.10.1177/0887302X9201000401>
- Robbinson, G. (2012). Lord Sainsbury parades Chancellors robe editorial stock photo-stock image/ shutterstock [Photograph]. Copyright (c) 2012. Retrieved from [cambridge university chancellor robe - Google Search](#)
- Robinson, O. C. (2014). Sampling in interview based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology*, 11 (1), 25–41. <https://doi.org/10.1080/14780887.2013.801543>
- Roshaidai, S., & Arifin, M. (2018). Ethical considerations in qualitative study. *International Journal of Care Scholars*, 1 (2), 30-33. <https://doi.org/10.31436/ijcs.v1i2.82>

- Ritchie, J., Lewis, J., Elam, G., Tennant, R., & Rahim, N. (2014). Designing and selecting samples. In J. Ritchie, J. Lewis, C. M. Nicholls & R. Ormston (Eds.). *Qualitative research practice. A guide for social science students and researchers* (pp. 111–45). Sage.
- Rosemann, T., & Szecsenyi, J. (2004). General practitioners' attitudes towards research in primary care: qualitative results of a cross sectional study. *BioMed Central Family Practice*, 5 (31), 1-5. <https://doi.org/10.1186/1471-2296-5-31>
- Rudd, N. A., & Lennon, S. J. (2000). Body image and appearance-management behaviors in college women. *Clothing & Textiles Research Journal*, 18 (3), 152–162. <https://doi.org/10.1177/0887302X0001800304>
- Rutakumwa, R., Mugisha, J.O., Bernays, S., Kabunga, E., Tumwekwase, G., Mbonye, M., & Seeley, J. (2019). Conducting in-depth interviews with and without voice recorders: A comparative analysis. *Qualitative Research*. 1–17. [https://doi: 10.1177/1468794119884806](https://doi:10.1177/1468794119884806) journals.sagepub.com/home/qr
- Sandelowski, M. (1995). Sample size in qualitative research. *Resource Nursing Health*, 18 (2),179-83. [https://doi: 10.1002/nur.4770180211](https://doi:10.1002/nur.4770180211)
- Sandelowski, M. (2008). Member check. In Given L. (Ed.), *The SAGE encyclopedia of qualitative research methods* (pp. 501–502). Sage.
- Saumure, K., & Given, L.M. (2008). Population. In L. M. Given (Ed.), *The sage encyclopedia of qualitative research methods* (pp. 643-644). Sage Publications, Inc.

Saunders, M.N.K., Lewis, P., & Thornhill, A. (2019). *Research methods for business students chapter 4: Understanding research philosophy and approaches to theory development* (8th ed.). Pearson. Retrieved from researchgate.net/publication/330760964_Research_methods_for_business_students_Chapter_4.

Schreier, M. (2012). *Qualitative content analysis in practice*. Sage publication Ltd.
<https://Qualitative Content Analysis in Practice | SAGE Publications Ltd>

Schreier, M. (2018). Sampling and generalisation. In U. Flick (Ed.). *The sage handbook on qualitative data collection*, (pp. 84-98). The sage publications.

Sedgwick, P. M. (2013). Convenience sampling. *British Medical Journal*, 347, 1-2

[https://doi: 10.1136/bmj. f6304](https://doi.org/10.1136/bmj.f6304)

Seivewright, S. & Sorger, R. (2017). *Research and design for fashion*. Bloomsbury publishing Plc.

Setia, M.S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, 61(3), 261-26.
<https://www.researchgate.net/publication/316889406>

Shen, X., & Tian, X. (2012). Academic culture and campus culture of universities.

Higher Education Studies, 2 (2), 61-65. [https://doi:10.5539/hes.v2n2p61](https://doi.org/10.5539/hes.v2n2p61)

Shi, Z., & Yu, Y. (2013). *Customer satisfaction in the fashion industry Case study of HM case company*. University of Gavle.

Shikalepo, E.E. (2020). Defining a Conceptual Framework in Educational Research.

Retrieved from: researchgate and Accessed on: (February, 26 2023).

- Shoaib, S., & Mujtaba, B. G. (2016). Use it or lose it: Prudently using case study as a research and educational strategy. *American Journal of Education and Learning, 1* (2), 83-93. <https://econpapers.repec.org/RePEc:onl:ajoeal:v:1:y:2..>
- Shukla, S. (2020). Concept of population and sample. Conference: How to write a research paper? Gujarat University, Indore, M. P., India. Retrieved from https://www.researchgate.net/publication/346426707_CONCEPT_OF_POPULATION_AND_SAMPLE
- Simplicio, J. (2012). The university culture. *Academic Journal Article, Education, 133* (2) <http://www.questia.com>library>journal>
- Singleton, R. A., & Straits, B. C. (2005). *Approaches to social research*. Nueva York: Oxford University Press.
- Špiláčková, M. (2012). Historical research in social work – Theory and practice. *ERIS Web Journal, 3* (2), 22 – 33. <http://periodika.osu.cz/eris>
- Sporn, B. (1996). Managing university culture: An analysis of the relationship between institutional culture and management approaches. *Higher Education, 32*, 41-61. <http://doi.org/10.1007/BF00139217>
- Stake, R. E. (2006). *Multiple case study analysis*. The Guilford Press.
- Suit, K. L. Jr. (2015). The iridescent web: American degree colours (1895–1935). *Transactions of the Burgon Society, 15*, 41-74. <https://doi.org/10.4148/2475-7799.1133>

- Sullivan, E. (1997). *American Council on Education, reprinted with permission from American Universities and Colleges*, (15th ed), Walter de Gruyter, Inc. Revised for clarity by ACE January 2020. from Academic Ceremony Guide.htm. Retrieved July 30, 2020 from acnet.edu/Programs-service/pages/academic-regalia.aspx.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of Intergroup Relations* (pp. 7–24). Nelson Hal.
- Tajuddin, F.N. (2018). Cultural and social identity in clothing matters. Different cultures, different meanings. *European Journal of Behavioral Sciences*. 1(4), 21-25. [https://www.dpublication.com > EJBS-V14_21-25](https://www.dpublication.com/EJBS-V14_21-25)
- Takoradi Technical University (n.d.) Academic gowns for convocation members with Ph.D. degree [Photograph]. Retrieved from [https://www.ttu.edu.gh.org/graduation – Google Поиск](https://www.ttu.edu.gh.org/graduation-Google-Поиск)
- Taylor, L. (2002). *The study of dress history*. Manchester University Press.
- Tessier, S. (2012). From field notes, to transcripts, to tape recordings: Evolution or combination? *International Journal of Qualitative Methods*, 11 (4), 446-460. <https://doi.org/10.1177/160940691201100410>
- The meaning and significance of wine colour. Retrieved December 27, 2022 from <https://alphapedia.net/wine-color>
- The Public Procurement (Amendment) Act, 2016 (Act 914). [http:// ppa.gov.gh/wp-content/uploads/2019/...](http://ppa.gov.gh/wp-content/uploads/2019/...)

- Thirumurugan, V., & Nevetha, R.P. (2019). A review article on kente cloth in home furnishings- overview. *Journal of Textile Engineering & Fashion Technology*, 5 (6), 306–308. <https://doi.10.15406/jteft.2019.05.00218>
- Thomas, D.R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27 (2), 237-246. <https://doi:10.1177/1098214005283748>
- Thoring, K., & Müller R.M. (2011). Understanding design thinking: A process model based on method engineering. *International Conference on Engineering and Product Design Education 8 & 9 City University, London, UK.*
- Tierney, W. G. (2008). *The impact of culture on organizational decision-making: Theory and practice in higher education*. Sterling: Stylus. Virginia.
- Ting, Y. T. (2005). The value of narrative inquiry in professional development: A case study in recognizing the value of equilibrated qualitative and quantitative methodologies in teacher-led classroom research. Italia: Centro Editoriale e Librario, Università della Calabria
- Todorović T., Toporišič, T., & Čuden, A.P. (2014). Clothes and costumes as form of nonverbal communication. *Scientific Review*, 57 (4), 321–333 DOI: 10.14502/Tekstilec2014.57.321–333.
- Todorović T., Čuden, A.P., Košak, K., & Toporišič, T. (2017). Language of dressing as a communication system and its functions – Roman Jakobson’s linguistic method. *Fibres & Textiles in Eastern Europe*, 25 (5), 125-133. <https://doi.10.5604/01.3001.0010.462>

Tutar, H. (2004). *Kriz ve stres yönetimi*. Ankara: Seçkin Yayıncılık

Twigg, J. (2009). *Clothing, identity and the embodiment of age*. In J. Powell and T. Gilbert (Eds.) *Aging and identity: A postmodern dialogue*. Nova Science Publishers. [https://www.actyourage.eu/uploads/files/clothing identity and...](https://www.actyourage.eu/uploads/files/clothing%20identity%20and...)

University of Education, Winneba (2012). *Handbook on academic ceremonies*. [https://www.uew.edu.gh › sites › files › downloads](https://www.uew.edu.gh/sites/files/downloads)

University of Ghana (2022). UG congregation -How to wear the academic gown.

<https://www.ug.edu.gh/congregation/november/wearing-the-gow>

University of Ghana. (n.d.). Academic gowns for the Bachelor degrees [Photographs].

Retrieved from [academic gowns university of ghana - Bing images](#)

University of Ghana. (n.d.). Academic gown for the master's degree [Photograph].

Retrieved from [academic gowns university of ghana - Bing images](#)

University of Ghana. (n.d.). Academic gown for Ph.D. and Principal Officers

[Photograph]. Retrieved from [University of Ghana Chancellors gown - Google Search](#)

University of Manitoba (2017). Academic dress at the University Manitoba. Retrieved

from [\(pdf\) academic dress at the university of manitoba - dokumen.tips](#)

University of Sydney. (n.d.). Academic gowns for the bachelor, masters and doctorate

degrees [Photographs]. Retrieved from [university sydney academic gowns - Google Search](#)

University of Sydney (n.d.). Academic for the University Chancellor [Photograph].

Retrieved from [Academic dress for the Sydney University chancellor - Google Search](#)

University of Pretoria Yearbook (2016). General regulations and rules of the University of Pretoria and the glossary of terms. Retrieved, February 10, 2021 from <https://www.up.ac.za/yearbooks/2016/pdf>

University of Wollongong ceremonial gown history (2013). University library and university archives. Retrieved, April 10, 2021 from <https://webapps.library.uow.edu.au/digitalcollections/exhibitions/pdfs/gowns-booklet.pdf>

van den Bosch, A.L.M., de Jong, M.D.T., & Elving, W.J.L. (2005). How corporate visual identity supports reputation. *Corporate Communications: An International Journal*, 10 (2), 108-116. <https://doi.org/10.1108/13563280510596925>

Venkatesh, A., & Meamber, L. A. (2008). The aesthetics of consumption and the consumer as an aesthetic subject. *Consumption Markets & Culture*, 11(1), 45–70. <https://doi.org/10.1080/10253860701799983>

Waquet, D. & Laporte, M. (2011). *Moda*. Ankara: Dost Kitabevi.

Watkins, S.M. (1988). Using the design process to teach functional apparel design. *Clothing and Textile Research Journal* 7: 10-14. <https://doi.10.1177/0887302X8800700103>

Watkins B.A., & Gonzenbach, W.J. (2013). Assessing university brand personality through logos: An analysis of the use of academics and athletics in university

branding. *Journal of Marketing for Higher Education*, 23 (1), 15-33,
[https://doi: 10.1080/08841241.2013.805709](https://doi.org/10.1080/08841241.2013.805709)

Widdersheim, W. M. (2018). Historical case study: A research strategy for diachronic analysis. *Library & Information Science Research*, 40 (2), 144–152
<https://doi.org/10.1016/j.lisr.2018.06.003>

Woiceshyn, J., & Daellenbach, U. (2018). Evaluating inductive vs deductive research in management studies: Implications for authors, editors, and reviewers, *Qualitative Research in Organizations and Management. An International Journal*, 13 (2), 183-195, <https://doi.org/10.1108/QROM-06-2017-1538>

Wolgast, S. L. (2009). The intercollegiate code of academic costume: An introduction. *Transactions of the Burgon Society: 9.*, published by New Prairie Press, 2016: <https://doi.org/10.4148/2475-7799.1070>

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, Sage.

Yin, R. K. (2017). *Case study research and applications: Design and methods*. Thousand Oaks, SAGE Publications.

Yin, R. K. (2018). *Case study research design and methods* (6th Ed.). Thousand Oaks, Sage Publishing.

APPENDIXES

APPENDIX A1: SAMPLE OF PERMISSION LETTER FOR DATA COLLECTION

UNIVERSITY OF EDUCATION
P. O. BOX 25
WINNEBA.
20TH AUGUST, 2021.

THE REGISTRAR,
HO TECHNICAL UNIVERSITY
P.O. BOX HP 217

Dear Sir/Madam,

Permission for Data Collection at Your Institution

I am Peggy Maansah Ankai Howard, a member of the teaching staff at Kumasi Technical University and a PhD candidate at the Faculty of Arts and Culture and Department of Music, University of Education-Winneba, writing on a thesis topic: "Design History, Philosophy and Aesthetics of Academic Gowns in Selected Technical Universities in Ghana."

Your institution has been selected from among the technical universities in Ghana to participate in the study.

In collecting the data, a semi-structured interview is being employed to obtain information from key informants such as management, lecturers, the designers of your gowns, and any other persons who may have rich information on your gowns.

Also, an observation guide will be used to collect data on the design philosophies and aesthetics of the various academic gowns for the various designated levels and positions in your institution.

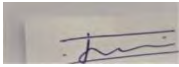
The results of the study will be used for academic purposes. It is important to state that any information provided by you will be strictly confidential.

I would therefore be grateful if you would grant me permission to collect data from your outfit by linking me to the key management personnel and staff for the semi-structured interview and making available the various levels of the gowns for the purpose of observation. I hope to start the data collection by the end of August.

Attached are samples of the observation checklist, interview guide, permission letter, questionnaire, and introductory letter for your necessary action.

Thank you very much in advance, and I hope to hear from you soon.

Yours faithfully,



Peggy Maansah Ankai Howard

Contacts

Mobile: 0245714988 or 0249723045

Email: pegmaglove@gmail.com

kwekusimpson48@gmail.com



APPENDIX A2: PREAMBLE

UNIVERSITY OF EDUCATION, WINNEBA FACULTY OF ARTS AND CULTURE DEPARTMENT OF MUSIC

Topic:

DESIGN HISTORY, AESTHETICS AND PHILOSOPHIES OF ACADEMIC GOWNS IN SELECTED TECHNICAL UNIVERSITIES IN GHANA

Academic gowns are very important ceremonial dresses worn: they are worn on special ceremonial occasions by the inmates of academic institutions in most part of the world including Ghana. Their designs are symbolic and carry messages about the identity of the wearers and their academic institutions. This study seeks not only to document but also to educate academic gown users, observers and designers, the history and the development of the various designs and logos of the academic gowns of the various Technical Universities (TUs) in Ghana. It also seeks to unravel the philosophies underpinning the varied designs, the aesthetic significance of the outward features of the gowns and how wearers perceive and appreciate the designs of the gowns. A study of this nature can only be successful if you voluntarily participate. The researcher not only appreciates your cooperation and time but values the honest information you will provide in this study. It is material to state that any information provided by you will be strictly confidential.

Contacts

Mobile: 0245714988

Email: pegmalove@gmail.com

APPENDIX A3: SEMI-STRUCTURED INTERVIEW GUIDE FOR THE KEY ADMINISTRATIVE PERSONNEL OF THE ACADEMIC INSTITUTIONS

SECTION A: Records of Participant and the Institution

Section A1: Bio Data and Personal Records of Interviewee

1. Please can you briefly tell me about yourself under the following subheadings:
 - a. Age
 bracket.....
 - b. Educational
 background.....
 - c. Position in the
 institution.....
 - d. Number of years worked in the institution.

Section A2: Profile of the Participating Institution

2. Please kindly provide me with the profile of this institution in terms of the following sub headings:
 - a. Year of
 establishment.....
 - b. Purpose of
 establishment.....
 - c. Students and staff
 strength.....
 - d. Names of departments and
 faculties.....
 - e. Academic ceremonial anniversaries

Section B: Design History of the Institution's Academic Gowns

3. Please kindly take me through the design history of the academic gowns in terms of
 - a. How the academic gown designs have evolved over the years?.....

- b. What the drivers for the evolution are?.....
.....
- c. Which particular aspect has been evolved or maintained?.....

Section C: Design Philosophies of the Institution’s Academic Gowns

- 4. What foreign factors and elements influence your institution’s gown designs?.....
.....
- 5. What traditional/cultural symbolisms (iconology) does your institution incorporate in its academic gown designs?.....
- 6. How does your institution’s philosophy influence your gown designs?
.....
.....
- 7. How does your institution’s academic gowns show status distinctions of identification in terms of academic achievements and official positions?.....
.....
- 8. How does your gown designs emphasise the intra (faculty) and inter institutional academic gown differences for the purpose of identification and recognition?.....
.....
- 9. What are the symbolic significance of the various features of your institution’s gowns (i.e. logos/emblems, colours, lining colours, sleeves, front facings/panels and fabric designs)?.....
.....
.....
- 10. How does the design philosophy impact on the design aesthetics of your gowns?...
.....

Section D: Design Aesthetic Connotations of the Institution’s Academic Gowns

- 11. What are the aesthetic significance of the outward features of your institution’s academic gowns?.....
.....
.....

12. How does the visual aesthetic values (formal characteristics) of your institution's academic gowns (i.e. logos/emblems, colours, lining colours, sleeves, front facings/panels and fabric designs) exert their autonomy amongst your institution's peers?.....
.....
.....

Section F: Satisfaction with the Design

13. How satisfied are you with the overall aesthetic qualities of your institution's gown?

.....
.....

Thank you



APPENDIX A4: SEMI-STRUCTURED INTERVIEW GUIDE FOR THE WEARERS OF ACADEMIC GOWNS IN THE ACADEMIC INSTITUTIONS

Section A: Bio Data and Personal Records of Interviewee

1. Please can you briefly tell me about yourself by providing the following:
 - a. Age
 bracket.....
 - b. Educational
 background.....
 - c. Position/status in the
 institution.....
 - d. Number of years in the institution).

Section B: Perception About the Academic Gown Designs

2. How important is the use of the academic gown to you?.....
3. Please what is your view about the various designs of your institution's academic gowns with respect to the
 - a. fabric type and quality.....
 - b. design and style of the
 components.....
 - c. colour schemes for identification and
 distinction.....
 - d. logo designs and other
 adornments.....?
4. How well are you convinced that your institution fully portrays its identity through the academic gowns used?.....

5. How satisfied are you concerning the various designs of your institution's academic gowns?.....
.....

6. What are your recommendations for management and designers of your gowns?....
.....

Thank you



APPENDIX A5: SEMI-STRUCTURED INTERVIEW GUIDE FOR THE DESIGNERS AND PRODUCERS OF ACADEMIC GOWNS OF THE ACADEMIC INSTITUTIONS

Section A: Bio Data and Personal Records of Interviewee

1. Please can you briefly tell me about yourself in terms of
 - a. Age bracket
 - b. Your educational background
.....
 - c. Years of experience in the fashion industry.....
 - d. Types of academic gowns designed.....

Section B: Design History of the Institution's Academic Gowns

2. Please kindly take me through the design history of the academic gowns in terms of
 - a. How the academic gown designs have evolved over the years?.....
.....
.....
 - b. What the drivers for the evolution are?.....
.....
.....
 - c. Which particular aspect has been evolved or maintained?.....
.....
.....

Section C: Design Philosophy of the Institution's Academic Gowns

3. Please how important is the design of academic gowns to you?.....

.....
.....
4. What has been the importance of the institution’s philosophy to the design philosophy of your gowns?
?.....

.....
5. Kindly take me through the design processes you follow when designing the academic gowns in terms of the
a. source of the idea/inspiration.....
b. final approval of the designs and other important processes.....
6. How do you design the gowns to showcase the identity of the wearers?.....

.....
Section D: Design Aesthetics of the Institution’s Academic Gowns

7. How does the design philosophy connect the design aesthetic significance of the academic gowns?
.....
.....
8. What are the symbolic significance of the various features of the gowns you designed (e.g. logo, emblem and colours, cut, sleeves, front facings/panels etc.)?
.....
.....
.....

Thank you

**APPENDIX A6: DESIGN OBSERVATION CHECK LIST FOR THE
ACADEMIC GOWNS IN THE GHANAIAN TECHNICAL
UNIVERSITIES**

Name of Institution.....

Item

Type.....

Level.....

.....

Name of

Evaluator.....

Date.....

.....

Institutional philosophy and its relationship with the gown					
<i>No.</i>	<i>Indicators</i>	<i>Response</i>			<i>Remarks</i>
		<i>No</i>	<i>To some extent</i>	<i>Yes</i>	
1	Institutional philosophy reflects the design philosophy				
2	Institutional philosophy is translated into logo and embossed on the gowns.				
3	Institutional philosophy reflects the colours of the design				
4	Institutional philosophy connects with the cultural symbolic images on the gown				

The symbolic distinctiveness / uniqueness of the various academic gown designs					
<i>No.</i>	<i>Indicators</i>	<i>Response</i>			<i>Remarks</i>
		<i>No</i>	<i>To some extent</i>	<i>Yes</i>	
5	Gown distinctions lie in the quality and type of the fabric				
6	Gown distinctions lie in the colour of the fabrics				
7	Gown distinctions lie in the cut and type of sleeves				
8	Gown distinctions lie in the front panel/ fold of the gowns				
9	Gown distinctions lie in the yoke of the robes				
10	Gown distinctions lie in the hood designs				

11	There are designated colours for the hood to indicate levels, academic discipline and faculty distinctions.				
12	Hood differences for the different academic levels and official positions lie in the size and designs				
13	Colour of hood linings represent the institution's colour.				
14	The gown designs promote both intra and inter institutional uniqueness.				

Visual product aesthetic qualities (VPAQ) of the gowns					
<i>No.</i>	<i>Indicators</i>	<i>Response</i>			<i>Remarks</i>
		<i>No</i>	<i>To some extent</i>	<i>Yes</i>	
Formalism (design qualities)					
15	Proportion				
16	Colour				
17	Shape				
18	Size				
19	Material texture and quality				
The symbolic connection of the gowns' features to the identity of the institution.					
20	The outward features of the academic gown designs connect aesthetically to the expected identity of the institutions				
21	Overall, the academic gown designs of the institution exert the required autonomy among its peers.				