

UNIVERSITY OF EDUCATION, WINNEBA

**REINVIGORATING ASANTE *CIRE-PERDUE* TECHNIQUE IN CASTING
GOLDWEIGHTS FOR CONTEMPORARY ASANTE PROVERBS**

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**A THESIS IN THE DEPARTMENT OF MUSIC EDUCATION, SCHOOL
OF CREATIVE ARTS, SUBMITTED TO THE SCHOOL OF GRADUATE
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FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF
DOCTOR OF PHILOSOPHY (ARTS AND CULTURE) DEGREE**

JUNE, 2018

DECLARATION

I, Stephen Okyere-Boateng, declare that this thesis with the exception of quotations and references contained in 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.

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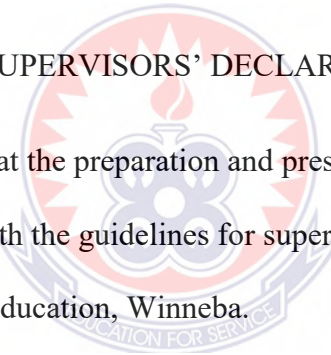
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SUPERVISORS' DECLARATION

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



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I lastly express my appreciation to my family especially my sons (Stephen and Alexander) for their love.

DEDICATION

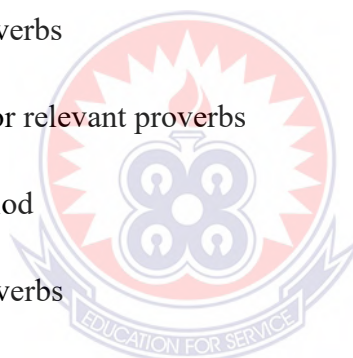
To my family



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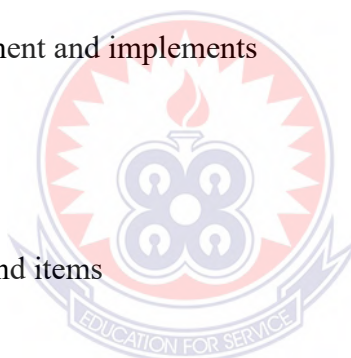
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ABSTRACT

An important part of oral communication that constitutes a noble component of language among Ghanaians is the proverb which is used in everyday correspondence, music, poetry, and oral drama. Many Akan proverbs are represented in Asante goldweights which were used as counter weights for gold dust and nuggets, the main currency of ethnic Ghana. The use of gold dust and nuggets as currency was forbidden in 1889 by the Gold Dust and Nuggets Ordinance, while keeping of goldweights became illegal in 1896 as a result of the Weights and Measures Ordinance; hence, a massive sell-out of Asante gold-weights to European merchants leading to the decline in the goldsmith's art of metal casting. This study delved into the production of contemporary goldweights based on contemporary proverbs and activities from about 1920 using the Asante technique of the *cire-perdue* metal casting process. Both primary and secondary data were used in the study. The total population for the study comprised all proverb creators, traditional rulers, metal casters, educators in Art and Cultural studies, and tertiary level students in Art and Cultural studies in Asante. Primary data were purposively collected from 30 research participants in seven communities within Asante including; Appiadu, Ayeduase, Bantama, Deduako, Dwease, Krofofrom, and Kwamo, whereas secondary data were based on information gathered from Museums, galleries, books, newspapers, journals, periodicals, theses and project reports, and internet sources. The qualitative research approach was used as methodology, and the descriptive and explorative research designs were employed. A self-designed drawing interview guide was prepared and used for the data collection. Outcome of the data collection was the gathering of 216 contemporary Asante proverbs that were used for the casting of 186 miniature sculptures in brass using the Asante technique of the lost-wax process. Out of the 216 contemporary proverbs, 124 were created by the proverb composers while 15 were composed by the researcher with the remaining 77 from secondary sources most of which were English proverbs. The study found out related works of contemporary items during the data collection. These items including cars, motorbikes, electrical appliances, and educational materials were, however, not attached to contemporary Asante proverbs but were only used as curios and decorative items. The study found out that while creation of classical or indigenous proverbs is attributed to our forefathers, Asante contemporary men and women are potentially creators of contemporary proverbs. This study delved into production and attachment of these contemporary items to contemporary proverbs and their relevance to the preservation of the Asante culture as contribution to knowledge. The study concludes that the cast contemporary goldweights would supplement the already existing goldweights in Ghana and the idea that was left to the researcher alone could now be accessible to the general public. It is finally recommended that, while the situation of the classical and modern Ghanaian periods is static; the contemporary Ghanaian period is potentially dynamic and would undergo additional changes with more of new contemporary items and events. Many more contemporary proverbs could, therefore, be created through oral communication to enhance the production of more contemporary goldweights for the development of the metal casting industry in Asante in particular and Ghana in general.

CHAPTER ONE

INTRODUCTION

1. 1 Overview

This chapter is the introductory part of this thesis. Denkyira and Agbeke (2013) state that the chapter familiarises the reader with the fundamental concepts of the topic under study; it gives a brief overview of the topic to be investigated. Accordingly, the University of Education, Winneba (2011) indicates that, the introduction forms the beginning of the main body of the dissertation and shall be designated as Chapter One; it shall be devoted primarily to justify the research work.

This chapter, therefore; deals with title of the research, background to the study, statement of the problem that needs to be dealt with accordingly, research questions that are derived from the title, purpose of the study that includes illustration of Ghanaian contemporary proverbs, objectives that are to be carried out in the research, justification of the objectives of the research, significance of the research, delimitation that specifies the study area, limitations encountered, definition of conceptual and operational terminologies used in the research, abbreviations and acronyms used, research methodology employed to achieve the objectives, organisation of chapters of the whole work, and references.

This research is related to a previous research with title; *Metal casting in Asante* by this researcher. The researcher identified the previous research as a prop to achieve objectives of this research.

As a policy required by the University of Education, Winneba; the American Psychological Association's (APA) current formats for dissertation writing has been considered for the study and preparation of this report.

1.2. Background to the Study.

The production of Asante proverbial goldweights from antiquity to the present times are based on indigenous Ghanaian proverbs, folk stories and past events. There are current innovations in production of goldweights depicting contemporary themes and objects. However, these contemporary weights are not related to proverbs as a result of non-existence of contemporary proverbs.

Proverbs, commonly used in Ghanaian oral tradition have attracted intellectual attention as scholars worldwide work hard in compiling and publishing them for use by students, researchers and the general reading public. Mish (2009) describes a proverb as a brief popular epigram, or maxim while Ampem (1998) explains a proverb as a concise and picturesque expression of a well-tryed wisdom. While Mish's (2009) description deals with originality of thoughts, Ampem's stresses on the true representation of thoughts.

Ampem (1998), Appiah and Appiah (2000), and Kyeremateng (2000) share the view that, the Ghanaian proverb is a short, well known and acceptable saying that states a general truth, gives advice, warning, and encouragement or expresses traditional thoughts on life, wisdom, and superstition.

Most classical Ghanaian proverbs were created as attributes to the Supreme Being, chieftaincy, authority, wisdom, marriage, and human behaviour as evident in Akan proverbs (Ampem, 1998). It is possible that some Asante proverbs

were composed out of events including defeat and victory in wars, festivals, bumper harvests, famine, and daily lives of the people. They provide strong direction, guide, guard, and protect individuals in their day to day socio-political, religious, and economic activities; they also serve as a source for oral record keeping.

Proverbs had visual interpretations in gold-weights, used as counter weights for measuring gold-dust and gold-nuggets, the main currency in Colonial Ghana in the Nineteenth Century particularly by the Akan (Garrard, 1980). There are, however, comparable brass weights currently on the market sold as gift items which feature non proverbial themes. According to Fosu (1994), recent goldweights include themes such as bicycle and motorcycle riders which technically demonstrate more refined designs and finish. They constitute a major attraction in the tourist art market of the late Twentieth Century.

Since Chrystaller (1879) documented about 3,600 Akan proverbs, not quite much had been done on proverb documentation and most of the numerous proverbs created in ethnic Ghana from about the Tenth Century were not properly documented (Anene and Brown, 1966). Rattray (1923), however, authored a publication on Twi proverbs. Unfortunately the early publications cannot be found in several libraries in Ghana. In recent times, Ghanaian scholars including Akrofi (1958), Mensah (1963), Ampem (1998), Kyeremateng (2000), and Appiah and Appiah (2000) have authored publications on Ghanaian proverbs.

Goldweight is a metal-cast miniature sculpture or metal block with symbolic abstract and geometric designs of Ghanaian origin. They are cast in

brass, copper or bronze in human, animal, and plant forms as visual representation of proverbs and folk stories. The name 'Asante goldweights' became associated with it mainly because of their function as counter weights for gold-dust and gold nuggets by Asante traders (Rattray, 1923). According to Rattray (1923) and Plass (1980), the Asante had practised metal casting using the lost-wax process as early as the Seventeenth Century and they had master craftsmen producing goldweights on commercial bases. Meyerowitz (1949) and Dodds (1976) noted that the brass technology of North Africa which inspired that of the Bono Ahafo area anticipated the remarkable development of Asante brassware.

Kyerematen (1964), Kolb (1968), Gidal (1971), Untracht (1985), Chilvers and Osborne (1988), Fox (1988), Goetz (1988), Adu-Akwaboah, (1994), and Ayensu (1977) describe the lost-wax (*cire-perdue*) casting process as a method of metal casting in which a thin layer of wax corresponding to the shape of the final sculpture is encased within two layers of heat-resistant clay, melted and drained off and then replaced with molten metal poured into the cavity that the 'lost-wax' has created. However, Rattray (1927) and Mcleod (1981) contend that a small clay cup or crucible containing pieces of metal is next grafted to the mould around the hole left by the wax rod. Clay is plastered heavily around the two to make a solid and perfect joint. Once the joint is thoroughly dried, the casting can be done.

Garrard (1980) stated that, the use of gold-dust and gold nuggets as currency in Ethnic and Colonial Ghana was forbidden by the Demonetisation of the Gold Dust Ordinance in 1889, while the use of goldweights became illegal as a result of the Weights and Measures Ordinance in 1896. These were policies of the British Colonialists. According to Garrard (1980), a system of annual inspection of

goldweights introduced by the colonial government caused a negative impact on the goldsmith's art and eventually ceased the production of goldweights. In Asante in particular, the goldsmiths' skills were neglected and the art of metal casting declined by 1920. Fox (1988) noted that, after the colonial policies in 1889 and 1896, individual goldweight owners began to sell their weights as curios to European collectors.

Information gathered from authorities provide evidence that, the major effects of the British Colonial policies of demonetisation of gold-dust, the illegality of keeping gold-weights, and introduction of annual inspection on Colonial Ghana especially, Asante were the decline of the goldsmith's art of metal casting by the *cire-perdue* method and extinction of goldweights production from the beginning of the Twentieth Century. Before the establishment of the policies, goldsmiths and metal casters based their production mainly on classical Ghanaian proverbs and folk stories which served as sources of information on culture, and traditional religion which was non scriptural. The negative impacts caused by the policies included:

- Massive sell-out of goldweights leading to absence of their records.
- Loss of interest in the goldsmith's art of goldweight casting.
- Inability to pass on the skill to interested family members especially of the next generation.
- Disorganisation of the guild of metal casters in Asante communities.
- Creation of unemployment as well as loss of livelihood.

Goldweights, therefore, played a lucrative role in the socio-economic lives of the people of Ethnic Ghana especially among Asante. Nonetheless, the proverbial weights which served as repository of Ghana's ancient wisdom have

been lost to modern Ghana. It is worrisome, for instance, to meet non Ghanaians who have conducted studies on Ghanaian goldweights in the British Museum, the Berlin Ethnographic Museum, or the National Museum of Denmark discuss history of Asante goldweights and the gold trade when most Ghanaians, especially, the youth do not have any idea about the role played by goldweights in ancient Ghana. Hof and Lesslauer (1994) noted that, although *cire-perdue* casting occupied a slightly uncommon position among the Asante crafts, its production started again around 1960 after a prolonged interruption as a result of the ban on goldweights in 1889. Another feature of modern brass casting in Asante is the limitation of its production to one location, Kurofofrom, since the revival of the handicraft.

Agyeman (personal communication, March 2002) stated that, there were twelve master craftsmen at the Kurofofrom casting village, and two others at Kentinkrono and the Centre for National Culture (CNC) in Kumasi. The production of goldweights was limited to making copies of the same old goldweights.

The indication was that the number of craftsmen involved in the revived art of goldweight casting was not encouraging and any hope of contemporary job creation vanished. Introducing new forms of goldweights with contemporary features could enhance attraction of the youth into the art.

Considering the historic and aesthetic roles played by goldweights in museums, art galleries, and institutions of learning both nationally and internationally, its place as a resource material on ethnic Akan world view could activate production of goldweights representing contemporary proverbs. The study into reinvigorating Asante *cire-perdue* technique in casting goldweights for

contemporary Asante proverbs would unearth new proverbs beside already existing classical Asante proverbs.

1.3. Statement of the problem.

The problem that the study sought to address was the non-existence of Asante goldweights that represented proverbs created from contemporary objects and activities since the establishment of the then Gold Coast to the current period in Ghana. The absence of the practice of Asante technique of *cire-perdue* casting process since enactment of the Demonitisation of Gold-Dust and Nugget Ordinance in 1889, and Weights and Measures Ordinance in 1896 by the British Colonialists led to the creation of a gap of metal casting in Asante. The study sought to reinvigorate the *cire-perdue* technique which originates in Asante. According to Leuzinger (1992) and supported by Agyeman (p.c., 2002), the Asante technique of lost-wax casting originates from Asante but has not been used over a long period of time as a result of introduction of a new method of pouring molten metal after decline of the process at the end of the Nineteenth Century.

Proverbs are traditionally and habitually used by Asante people in speeches, music, poetry, oral drama, and in ordinary conversations. They are, therefore, important instruments in the ethnic Akan, and Ghanaian oral record keeping. They are used by Asante in particular and Ghanaians in general in everyday conversation. Kyeremateng (2000) stated that, proverbs are used to interweave long sentences; they are also used to shorten long conversations to enhance palatability of the language. According to Agyekum (2011), proverbs are used to provide better explanation to certain statements, while Boadi (2014)

posited that they are parts of speech created by forefathers for current generations based on wisdom.

Barima (personal communication, April, 2012) argued that Asante proverbs have no known composers and that they were created by forefathers and have passed on to the present generations through oral tradition. Barima's assertion of unknown composers of Asante proverbs excludes contemporary Asante proverbs which are composed based on contemporary and modern experiences.

After the use of gold-dust as currency in ethnic Ghana had been forbidden and the keeping of the goldweights had become illegal, English coinage was imported into Colonial Ghana which replaced gold as medium of exchange and, therefore, the active production of goldweights of commercial value declined. Instead, the goldweights were henceforth, developed into gift items of aesthetic delight (Menzel, 1968 & Garrard 1980).

The ethnic Akan proverbs as useful as they are in oral tradition also inspired an artistic tradition of the goldweight miniatures which had a commercial value in the weights and the gold trade. These goldweights were produced in brass and bronze alloys using the lost-wax casting process by Asante artisans. However, innovative goldweight miniatures continue to be produced in Asante as new proverbs also continue to be inspired by such post independent national challenges such as freedom of speech, youth curiosity regarding the socio-religious and political past, as well as Ghana's experiences of erratic military governance, hunger, drought, the use of sophisticated gadgets (for social, economic, and academic purposes), and Human Immune Virus / Acquired Immune Deficiency Syndrome (HIV/AIDS).

Most of these new challenges have not been used to create proverbs; neither have they been used to produce contemporary goldweights to serve as resource materials for Ghana's museums and institutions of learning.

It would be clearly observed that innovations are being carried out continually in our communities, so as new proverbs are being created through factors including; freedom of speech, Ghanaian thought on life, and curiosity of the youth regarding history, religion, life, politics, social behaviour, economic activities, academic work, and responsibilities of the individual.

This research sought to create proverbs based on contemporary items, events, and lifestyles, and representing them in brass castings of miniature sculptures known as Asante goldweights to resource museums.

Some examples of contemporary proverbs are:

- 'If the television is a good informant it is the antenna that receives signals'.
Literal meaning is; the antenna is a receiver of the signal to feed the television set. A related classical proverb is; 'the greatness of a chief depends on his army'. The philosophical meaning is; greatness is achieved through little things
- 'A lorry full of items is unloaded in bits'. This is related to; patience removes mountains
- 'At the mercy of Europeans we all wear fabrics', meaning; some people became modernised and prosperous as a result of others.
- 'It takes wisdom for Whiteman to launch into the sea', meaning; one has to use one's brain fruitfully in difficult times.

- ‘It is not difficult to board a lorry but it is difficult to alight’, meaning; it is easy to get into trouble but difficult to get out of it.

1.4. The gap that the study intended to fill

The art of goldweight casting became illegal as a result of the two Colonial policies of Demonetisation of Gold-Dust Ordinance in 1889, and Weights and Measures Ordinance in 1896. Following their passage, goldweight casting ceased for more than four decades. However, with the importation of European workmanship by the Colonialists, a new form of *cire-perdue* casting was introduced into the Gold Coast leaving the Asante *cire-perdue* technique to become extinct (Garrard, 1980).

The study, therefore, identified extinction of the Asante technique as lacuna created by the Colonial Administration and to re-introduce the technique to be used in casting goldweights to sustain this local technology. With proverb creation remaining anonymous with no authorship, the study sought to update some existing Ghanaian proverbs by creating proverbs based on contemporary objects and events to match them and stating the date (year) of composition.

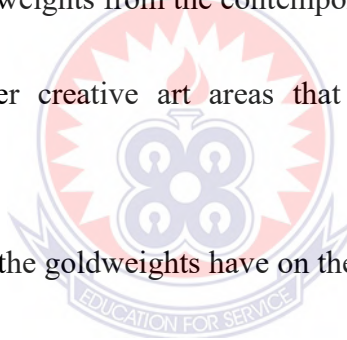
1.5. Research questions.

Agyedu, Donkor, and Obeng (2013) state that, research questions are formulated in such a way that answers found to them would serve as the solution to the research problems, and they are best suited for studies which aim at describing ‘what is’, rather than to test explanations for ‘what is’. They further state that the research questions must be closely related to the objectives of the study. In a related statement, K. Fosu (personal communication, March, 2015)

opined that, research questions must be dictated and directed by the objectives that derive from the topic.

An analysis of the above statements indicates that the following research questions are appropriate to form the focus of this study.

1. What constitutes indigenous and contemporary proverbs in Asante and in what ways could Asante proverb creators be identified?
2. What is the practicability of using the proverb creators to compose contemporary proverbs?
3. What is the possibility of using the Asante *cire-pedue* technique in the production of goldweights from the contemporary proverbs?
4. What are the other creative art areas that the created proverbs could be represented?
5. What relevance do the goldweights have on the created proverbs?



1.6. Purpose of the study.

The purpose of the study embodies the objectives or goals the researcher hopes to achieve with the research. It serves to guide the activities of the research as the objectives give direction to the study, and will convey to the reader the intent of the research. At the end of the research when the objectives have been attained, the problem posed under 'statement of the problem' must necessarily be addressed. There should therefore, be a linkage between statement of the problem and purpose of the study. (Agyedu, Donkor, & Obeng, 2013).

Since the art of goldweights production has declined in Ghana and there are no identified research reports on goldweights that illustrate Asante contemporary proverbs and present day experiences; this study proposed to:

1. Investigate what constitute contemporary proverbs in Asante and introduce the production of goldweights that represent contemporary proverbs and events by using the Asante lost-wax metal casting technique.
2. Make recommendations for the research to be used by craftsmen, students, and educators in African Art and related Cultural studies. These would enhance teaching, learning, and research.

1.7. Objectives of the study.

The objectives of a research project summarise what is to be achieved by the study. They should be closely related to the statement of the problem. (Obeng, 2013).

The objectives of this study revolve around composers of Asante proverbs, the Asante *cire-perdue* metal casting technique, and the production of goldweights. Based on the research questions the study, therefore; has the following five objectives to investigate.

1. To identify indigenous and contemporary proverbs, and proverb creators in Asante.
2. To organise the proverb creators to compose contemporary proverbs.
3. To use the Asante *cire-perdue* technique in the contemporary goldweight production process.

4. To determine other creative art areas where the created proverbs could be represented.
5. To determine the relevance of the goldweights to the proverbs.

1.8. Significance of the study.

The researcher needs to show that the study is sufficiently important to justify the researcher's effort as well as the efforts of others involved in it. The writer must show who the beneficiaries or stakeholders would be and how they would benefit from solution to the problem. Creswell (2009) as cited in Agyedu, Donkor, and Obeng (2013) suggests that the researcher may provide three or four reasons why the study is important regarding contribution to knowledge, improving practice, and improving policy. Denkyira, and Agbeke (1999) also suggest that, it is useful for an author to tell his or her readers why the study is important by indicating reasons in terms of the development of knowledge, the implications for further study, and the relevance of educational practice.

This study sought to investigate five objectives to come out with reinvigoration of Asante *cire-perdue* technique in casting goldweights for Asante contemporary proverbs. The write-up would add to scholarly research and literature in the field of Creative Arts and Cultural Studies. The findings would unearth what would be known as contemporary Asante proverbs, and goldweights based on Asante contemporary proverbs. The implications of this study would contribute to knowledge as it introduces new trends in goldweights production that is the revival of the Asante technique that has been in extinction after enactment of the two Colonial policies, and the use of a mathematical equation to calculate the

weight of brass to be used for a particular wax model in the casting process. This research would, therefore; be relevant to clients, connoisseurs, metal casters, museum curators, Art educators, and students. It would serve as a resource material for the teaching and learning of Art, African Studies, and other related cultural studies. It would also open up the way for further study into goldweights based on modern proverbs.

1.9. Delimitation.

This study on production of goldweights that represent contemporary proverbs in Asante sought to identify Asante proverb composers from five communities and goldweight casters from two communities in Asante for the composition and confirmation of the contemporary proverbs and casting of goldweights to represent them. The study communities were; Appiadu, Ayeduase, Bantama, Deduako, Dwease, Kurofofrom, and Kwamo. The study also sought to identify manufactured objects and current events in Ghana as contemporary items and events respectively, and use them for proverb composition. Proverbs could be identified in various Ghanaian languages including Dagbani, Katsina, Dagare, Twi, Fanti, and Eve from different regions. The study, however, targeted Asante Twi in Asante, where many of the proverb composers could be identified and whose language could be easily understood and translated by the researcher.

The population for the research was mostly proverb composers, lost-wax metal casters, traditional leaders, and Art educators in Asante. However, thirty (30) participants were selected from the identified communities for data collection. The *cire-perdue* metal casting, the technique employed in the study is also practised in the two identified metal casting communities in Asante. Additionally, there is a cluster of

auto mechanic workshops (*Magazine*) at Suame, a suburb of Kumasi where brass scrap is available and could be purchased for use in the casting. The study area chosen for the research was, therefore, appropriate for the work to be executed within the given time frame.

1.10. Conceptual and Operational Definition of Terms.

When a concept or an object an author refers to in the essay has more than one operational definition, the author needs to explain to the reader the sense in which the concept or word is being used. It is critical for an author to provide the operational definition for each term that needs to be explained. That is the definition identifies the observable criteria of what is being defined. Operational definitions (as in Tuckman, 1994) are used when such a word or term is likely to bring about communication problem, because the same word or phrase can have different meanings for different people. It is important to do this for the fact that research report writing is about communication and, therefore; requires preciseness of language in order to make replication possible (Denkyira and Agbeke 1999).

In furtherance of the above, the following conceptual and operational terms are defined.

Borax: A crystalline compound used in metal casting to separate dirt from molten metal.

Brass: An alloy of copper and zinc with a usual composition of 70 % and 30 % respectively, with a bright yellowish colour.

Cire-perdue: The process of melting wax from a mould to create room for casting.

(A French word also meaning ‘lost-wax’).

Contemporary: Existing or coming into being during the same period of time, or things happening in the present time.

Contemporary objects: Manufactured objects that can still be rebranded and reproduced.

Contemporary events: Recent lifestyles, current and on-going activities.

Contemporary proverbs: Proverbs that are created from manufactured objects and events that have recently occurred. It is also update of existing proverbs.

Contemporary goldweights: Asante goldweights that depict proverbs created from recently produced artificial objects and recent lifestyles and activities in Ghana.

Connoisseur: One who understands the technique or principles of an artwork and can competently act as a critical judge.

Expendable mould: Any mould that is destroyed to retrieve casting.

Gating: Constructing a pass into a mould to be used as a passage through which molten metal enters the mould.

Goldweight: Counter weight used as the balance to weigh gold-dust and gold-nuggets in Ethnic Ghana before colonisation.

Indigenous proverbs: Existing Ghanaian proverbs.

Magazine: Cluster of mechanic workshops at Suame, a suburb of Kumasi in Ghana.

Miniature sculpture: A smaller copy of a block art work.

Proverb creators: Knowledgeable people who are able to compose statements containing wisdom that give both literal and philosophical meanings by observation of events, as well as observation of functions and uses of both natural and artificial objects.

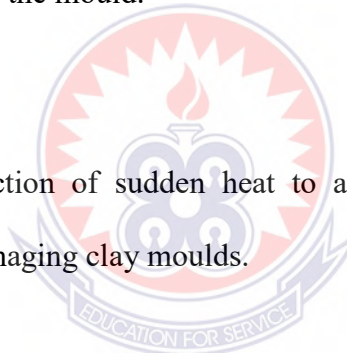
Refractory materials: Materials used in metal casting which cannot be easily damaged by high temperatures.

Slurry: A thick liquid of water and clay, or charcoal used in coating models before metal casting.

Sprue: The waste piece on a casting that creates the hole through which molten metal flows into the mould.

Terra-cotta: Fired clay.

Thermal shock: Introduction of sudden heat to a substance that causes damage. Common in damaging clay moulds.



1. 11. Abbreviations and Acronyms used.

C.N.C. - Centre for National Culture.

F.A. – Field Assistant.

FGD. – Focus Group Discussion.

HIV / AIDS. - Human Immune Virus / Acquired Immune Deficiency Syndrome.

K.N.U.S.T. - Kwame Nkrumah University of Science and Technology.

L.P.G. - Liquefied Petroleum Gas.

O.F.Y. – Operation Feed Yourself.

PH.D. - Doctor of Philosophy.

PNDC – Provisional National Defence Council

SDDIG. – Self-Designed Drawing Interview Guide.

UNIGOV. – Union Government.

U.E.W. - University of Education, Winneba.

U.S.T. University of Science and Technology.

1.12. Organisation of the chapters.

This section discussed all the chapters in this work in chronological order from the first to the sixth chapter.

The reader is introduced to how the report has been organised based on commonly accepted conventions of writings, organising, and formatting of the report. The report is usually organised into five distinct sections, labelled chapters, each of which is concerned with a specific aspect of the study. The section enables the reader to get an insight into what is contained in each chapter. (Agyedu, Donkor, and Obeng, 2013).

This research is, however, organised in six chapters because the study consist of studio activities which are practically explained in the fourth chapter. The studio work includes designing of the contemporary weights, wax modelling, slurry coating of the models, drying, firing and de-waxing, embedding of brass nuggets in the mould, and casting of the weights.

Chapter one provided introduction to the research with the title, background to the study, statement of the problem, background to the study, the gap that the study intended to fill, research questions, purpose of the study, objectives, justification of the objectives, significance of the study, delimitation, limitation, definition of conceptual and operational terms, abbreviations and acronyms used, research methodology, and organisation of the chapters.

Chapter two discussed literature related to the research. This is organised under topics including; introduction, theoretical framework, conceptual framework, goldweights, origin of goldweights, owners of goldweights, meanings of goldweights, production period of goldweights, proverbs, composition of proverbs, use of appropriate or relevant proverbs, contemporary proverbs, lost-wax (*cire-perdue*) metal casting process, knowledge of metal casting in Asante, Asante lost-wax metal casting technique, properties of brasses, and summary of discussions.

Chapter three is the research methodology organised under the following headings; introduction, geographical location of the study area, research design, artistic research, importance of art-based research method to the study, qualitative research, justification for employing qualitative research, population for the study, characteristics for population of the study, the study area, sample and sampling techniques, training of Field Assistants, data collection instruments, data specific treatment, method of data analyses, justification of sample selected, a pilot study with two proverb composers, the survey instruments, interview guide preparation, identification of contemporary items, administration of interview guide, interviews, creation of contemporary proverbs, focus group discussions, ethical considerations, theoretical framework and creation of contemporary proverbs, conceptual framework and creation of contemporary proverbs, anecdotal record, collation of data, the need

for creating new and existing proverbs, materials and tools for modelling and the *cire-perdue* casting, preparation of the wax models, the *cire-perdue* casting method, how the study intends to introduce new trends in the production of goldweights, and summary of discussion.

Chapter four dealt with activities employed in casting the goldweights using wax and brass. The main activities were wax modelling and brass casting. The chapter is arranged under the following headings; introduction, information from secondary sources, written records, gender distribution of respondents, age distribution of respondents, participants selected for the field survey, information gathered on objectives of the study, composing the contemporary proverbs, composition of proverbs by the researcher, presentation of the contemporary proverbs, Focus Group Discussions, the *cire-perdue* casting process, the flow diagram of the casting process, the assembled contemporary goldweights, themes used for the casting of 186 contemporary goldweights, selected castings of classical goldweights and contemporary goldweights, and summary of discussions.

Chapter five discussed the analyses and interpretation of findings from the field study. It is organised as follows; introduction, exploratory study, positionality of researcher in the study, analyses and discussions, and summary of discussions.

Chapter six discussed summary of findings, offered conclusions, and provided recommendations as well as implications for further research.

At the end of the thesis report is a list of references to all the chapters that are arranged alphabetically.

Additionally, numbering of pages from chapter one to references is made in Arabic symbols.

The appendices follow the references with numbering of pages in Roman symbols. The appendices are not part of the chapters and are arranged as follows:

Appendix A -- The interview guide used for data collection.

Appendix B – The cast objects

Appendix C – Self-Designed Drawing Interview Guide (SDDIG)

Appendix D -- Notes



CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Introduction

This chapter on related literature deals with subjects on goldweights production based on Asante proverbs in general, and contemporary proverbs and events in particular. This study is qualitative research which is based on gathering of information from both primary and secondary sources. Agyedu, Donkor, and Obeng (2010) indicated that, one of the main reasons for conducting a qualitative study is its exploratory nature and the researcher seeks to listen to informants and to build a picture based on their ideas, as a result, literature is used inductively so that it does not direct the questions asked by the researcher. Obeng (2013) stated that, review of related literature helps to interpret and summarise what is known in the area; it puts together and synthesises different results, and points at areas where previous studies agree or disagree and where major questions remain to be answered. Denkyira and Agbeke (2013) suggested that, in reviewing the related literature the researcher may have an idea about how to organise and classify the data into a coherent pattern. This, therefore; suggests that review of related literature involves locating, reading, identifying, and analysing documents containing information related or relevant to the research.

The review of related literature further deals with; theoretical and conceptual frameworks, classical proverbs, collection of Akan proverbs, proverbs and idioms, composition of proverbs, use of appropriate or relevant proverbs, contemporary proverbs, contemporary period, significance of proverbs, goldweights, origin of goldweights, owners of goldweights, production period of goldweights in Asante, goldweights and proverbs, lost-wax metal casting, Asante

lost-wax metal casting technique, proficiency and precision casting of gold-weight in Asante, metals used in goldweights casting, acquisition of brass for goldweight casting, some properties and applications of brasses, general properties of brass, and summary of discussions

Most of the information gathered in this chapter were obtained from books, journals, newspaper reports, research and theses reports, and internet sources. The researcher, however, presented some direct quotes, and mostly used paraphrastic sentences in the chapter as a preferred review presentation style.

Theoretical framework

Many theories that explain creation of contemporary proverbs have been developed by some theorists; however, the few selected for review are from Thomason (1983), Fauconnier and Turner (1996), Rubing and Babbie (1997); Ward (2004), Underwood (n.d.); Walaszewska (2013); and Bakker (2017).

Theory is a set of inter-related constructs, definitions and propositions that give a systematic view about a phenomenon by specifying relations among variables with the purpose of explaining and predicting such a phenomenon (Kerlinger, 1973, as in Ehondor 2017). According to Walter (1996), a contemporary proverb is an update of the traditional proverb. Such traditional proverbs, meant to convey cultural knowledge and wisdom, are often closely tied to a culture's values and everyday experience. As a result, their meanings are not always readily apparent to us in current times. This challenges learners of proverbs to craft more apparent meanings for traditional proverbs. They first search for proverbs to be more contemporary, and finally, they write new proverbs of their own. For instance; "Do

not store all your data on one disk” is a contemporary update of the traditional proverb "Don't put all your eggs in one basket."

2.2.1. *Conceptual metaphor theory*

Conceptual Metaphor Theory (CMT) is primarily concerned with the conceptual structures from which language is held to arise naturally (Fauconnier & Turner, 1996. pp 113). Ward (2004) proposed that, metaphor is not just an aspect of language, but a fundamental part of human thought or conceptual metaphors. It is where some aspect of the real world is used to describe something similar, and often only relates to some facets on the comparison. It involves describing the subject as the comparison, rather than comparing them using “as” or “like”. Some metaphors have become so familiar that they have passed into speech as the description of something used without people realising that they are using a metaphor.

According to Underwood (n.d.), a metaphor is a figure of speech that describes an object or action in a way that is not literally true, but helps an idea or makes a comparison. It states that one thing is another thing; it equates those two things not because they actually are the same, but for the sake of comparison or symbolism. A metaphor is used in poetry, music, literature, and anytime someone wants to add some “colour” to the language. Metaphors can make your words come to life or in the case of examination, ‘to death’ as it could be said by students that “this examination was murder” Often times, one can use a metaphor to make a subject more relatable to the listener or to make a complex thought easier to understand. They can also be of a tremendous help when one wants to enhance his writing speech or with imagery. As a common figure of speech, metaphors turn up

to presidential speeches and even popular songs. When they are especially good, they are hard to miss.

A metaphor is a conceptual view rather than a sequence of words. It construes one object as another (an idea is construed as a concrete object). Through a metaphor, some qualities are transferred from a source domain to a target domain. Metaphor, therefore, means “x is y” (www.tangibleobjects.target-ideas.com)

Another school of thought indicates that, a metaphor is a conceptual integration network that links mental spaces to develop novel conceptualisations, and this involves mapping entities and relations between them (Fig. 1).

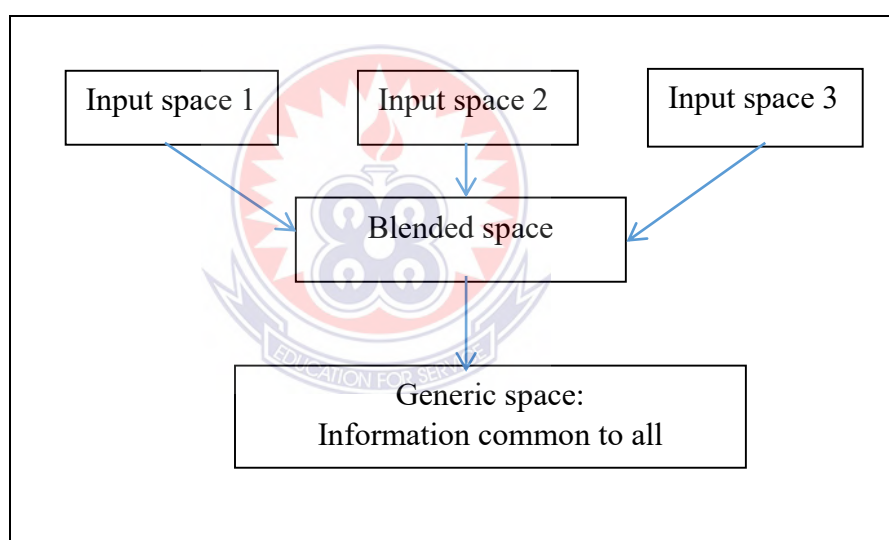


Fig. 1: Blending: Establishment of spatial mapping.

Source: (www.coli.uni-saarland.de, 2016).

2.2.2. *Theory of figurative speech (simile)*

Walaszewska (2013) stated that, what similes have in common with metaphors is that they involve the process of *ad hoc* concept formation. If they actually involve *ad hoc* concepts, this may explain why it is so easy to transform similes into metaphors by omitting *like*. However, the *ad hoc* concepts resulting

from the use of a simile are different from those arising from the use of a metaphor; the former exploit broadening and the latter both broadening and narrowing. This hypothesis captures the intuition that metaphors are more abstract than similes. On the other hand, it is not too difficult to see what similes have in common with literal comparisons, namely the presence of *like*. However, it is argued that *like* operates differently in those two cases. In literal comparisons, *like* seems to encode the concept of similarity, whereas in similes the word appears to be both conceptual and procedural in nature; it encodes the concept of similarity and procedure to construct an *ad hoc* concept. Assuming that similes are more related to metaphors than to literal comparisons, it makes sense to claim that *like* in similes introduces an *ad hoc* concept. Moreover, in similes, *like* is both conceptual and procedural, with the procedure it encodes instructing the hearer to construct an *ad hoc* concept by broadening the concept encoded by the expression following *like*. Such an account shows how similes are similar to and different from metaphors and literal comparisons. Namely, unlike literal comparisons, both metaphors and similes involve *ad hoc* concepts, even though the concepts are constructed differently. It also shows how the *like* used in similes is both similar to and different from the conceptual *like* used in literal comparisons and the procedural *like* functioning as a pragmatic marker.

2.2.3. *Theory of mixed languages*

A mixed language is a language that arises among a bilingual group, typically very abruptly, combining aspects of two or more languages but not clearly deriving primarily from any single language. It differs from a [creole](#) or [pidgin language](#) in that, whereas *creoles* / *pidgins* arise from populations trying to imitate a

language where they have no fluency, a mixed language arises in a population that is fluent in both of the source languages. Because all languages show some degree of mixing by virtue of containing loanwords, it is a matter of controversy whether the concept of a mixed language can meaningfully be distinguished from the contact phenomena of certain languages from the type of contact and borrowing seen in all languages. Other terms used in linguistics for the concept of a mixed language include *hybrid language*, *contact language*, and *fusion language*; in older usage, 'jargon' was sometimes used in this sense. Thomason (1983) classifies mixed languages into two categories: Category one languages exhibit "heavy influence from the dominant group's language in all aspects of structure and grammar as well as lexicon", while Category 2 languages show a "categorical specificity of the structural borrowing" or a uniform borrowing of specific categories.

Bakker (2017) explained that, the identification of a set of contact languages, many of which shared structural and social features that set them apart from other results of language contact, has led to a broad acceptance of mixed languages since the 1990s. Mixed languages are languages in which whole component parts are from distinct language families or branches. In some, the vocabulary from one language and the grammatical system (phonology, morphology, syntax) from another are combined. This type has been called "intertwined" languages. A second type has verb phrases from one language and noun phrases from another. For a long time it was believed that Michif (Cree verbs, French nouns) was the only language of this type. In the meantime, information has come forward on a language with *Igbo* verbs and *Ijo* nouns spoken in *Okrika*, Nigeria (no publications yet), and extensive information has been obtained on two Australian mixed languages, *Gurindji Kriol* and *Light Warlpiri* (English Creole verb

phrase, Aboriginal noun phrase). Languages with a mixed everyday vocabulary constitute a third type. A claim has been made that a few creole languages, such as Berbice Dutch (Dutch, Ijo) and pidgins (Trio-Ndyuka pidgin), constitute this third type. A final type consists of languages in which all of the vocabulary, including grammatical words and endings, are etymologically from one language, but they do not share the typological profile of the other languages of that family; instead, they have a typological profile close to, or identical to, that of another, typologically distinct, language family. The process involved has been called metatypy. Languages that could belong to this group include Sri Lanka Malay (Malay lexicon, Sinhala-Tamil typology) and Haitian Creole (French lexicon, Fongbe typology). Other terms used for mixed languages are split languages, stable mixed languages, bilingual mixed languages, intertwined languages, converted languages, syncretic languages, and hybrid languages.

2.2.4. *Constructivist theory*

Constructivism is a learning theory found in psychology which explains how people might acquire knowledge and learn. It, therefore, has direct application to education. The theory suggests that humans construct knowledge and meaning from their experiences. Constructivism is not a specific pedagogy. Piaget's theory of Constructivist learning has had wide ranging impact on learning theories and teaching methods in education and is an underlying theme of many Education reform movements (http://sydney.edu.au/education_social_work/learning_teaching/ict/theory/constructivism.shtml)

Formalisation of the theory of constructivism is generally attributed to Jean Piaget, who articulated mechanisms by which knowledge is internalised by learners.

He suggested that through processes of accommodation and assimilation, individuals construct new knowledge from their experiences. When individuals assimilate, they incorporate the new experience into an already existing framework without changing that framework. This may occur when individuals' experiences are aligned with their internal representations of the world, but may also occur as a failure to change a faulty understanding; for example, they may not notice events, may misunderstand input from others, or may decide that an event is a fluke and is therefore, unimportant as information about the world. In contrast, when individuals' experiences contradict their internal representations, they may change their perceptions of the experiences to fit their internal representations. According to the theory, accommodation is the process of reframing one's mental representation of the external world to fit new experiences. Accommodation can be understood as the mechanism by which failure leads to learning; when we act on the expectation that the world operates in one way and it violates our expectations, we often fail, but by accommodating this new experience and reframing our model of the way the world works, we learn from the experience of failure, or others' failure. (<https://pdfs.semanticscholar.org>.)

In a similar vein, Rubing and Babbie (1997) stated that, Theory of constructivism focuses on better understanding and interpreting social phenomena being studied through direct in-depth contact and relationship with the research subjects.

This theory could be applied to relate well with the selected respondents in the study area to obtain reliable information through interviews.

Conceptual framework

The Akan people use proverbs throughout their life-cycle events during; libation, court sessions, durbars, counselling sessions, working periods, marriage and divorce, battles, and everyday conversations. Ampem (1998), Kyeremateng (2000) and Agyekum (2011) explained that, *asem mmaeε a, yemmu bε*, meaning; when there is no discourse, there is no recourse for engagement in proverbs. Another version of this same proverb is; *asem ba a, na abεbuo aba*, meaning; a proverb comes only when an occasion arises. Giving further explanation to Akan proverbs, Agyekum (2011) stated this in Asante Twi; *Akanfoε bu bε wε wεn asetenam nneyεε nyinaa mu. Berε a yεbu εbε na εdidi soε yi: nsaguo mu, asennie ase, adwabε anaa badwam, afotuo mu, adwumayε, awaregyeε ne awareguo ase, εko berε mu, ne daa daa nkεmmε diemu.*

If the proverb is used in all life-cycle events, as well as everyday conversation, then it is the belief of this researcher that, the moment a conversation begins, there is a demand for the use of proverbs.

2.4. Proverbs

The Merriam-Webster's Collegiate Dictionary (2009) explained a proverb as a brief popular epigram, or maxim, and further explains epigram and maxim as a concise poem dealing pointedly and satirically with a single thought or event and often ending with an ingenious turn of thought; and a general truth, fundamental principle, or rule of conduct respectively. The Encarta World English Dictionary (1999), the Advanced Learner's Dictionary (2000) and the Microsoft Encarta Dictionary (2009), described a proverb as a short well-known phrase,

saying or sentence that expresses an obvious truth and often advice. The Collins Cobuild Advanced Learner's English Dictionary (2006) explained a proverb as a short sentence that people often quote which gives advice or tells a person something about life. Ampem (1998) explained a proverb as a concise and picturesque expression of a well-tryed wisdom. Kyeremateng (2000), Appiah, and Appiah (2002), Kwakye (2013), and Dede (2015) provided a similar explanation of a proverb as a short well known and acceptable saying that states a general truth. Gives advice, warning, and encouragement, expresses traditional thought on life, wisdom and superstition. The Collins English Dictionary (2005) stated that, a proverb is a short memorable saying embodying some commonplace fact. It is also a wise saying providing guidance. Amate (2011) stated that, proverb is a short but well condensed statements that are commonly used in man's daily activities to advise, correct, educate, and entertain people. They are a form of verbal art handed down from generations in oral tradition. History of a group of people may be embedded into proverbs in order not to forget about it as time goes on. Proverbs are guarded meticulously among the royals or beneficiaries of history of the society. Proverbs can also be used as a channel of educating people both at literary and non-literary educational levels. They are formed out of a lengthy oral tradition for easy remembrance and translated.

Proverbs are short and witty traditional expressions that arise as part of everyday discourse as well as in the more highly structured situations of education and judicial proceedings. Each proverb is a full statement of an approach to recurrent problem (Abrahams 1982: 119, quoted in Valiulyte 2010). According to Honeck (1997: 11-12, quoted in Siauliai, 2010), from the linguistic standpoint, a proverb is a phonological, syntactic, semantic, pragmatic, and, some would add a

semiotic (complex sign) entity. There is no question that all proverbs exhibit regularities on the one or more of these levels.

As proverbs usually go with ‘sayings’, ‘poetry’, and ‘expressions’ in verbal communication they are vividly positioned as an oral culture. Proverbs are although, written for readers’ attention; it is usually during conversations that a proverb is commonly used and interpreted for clear understanding of a particular situation. Proverbs are; therefore, a valuable form of verbal communication in the Ghanaian society. Moon (n.d.) states that, when approaching oral cultures, proverbs can be regarded as sturdy time-tested stepping stones placed by the elders to move people from the river bank of unbelief or young faith to mature faith.

The explanation of a proverb could, however, incorporate features with characteristic of both verbal and written communication. Mish’s (2009) explanation of a proverb included ‘epigram’ which deals with inscription, and according to Paczolay (1998: cited in Valiulyte, 2010), a proverb is a short, standard, written, or stored statement sometimes allowing for one or a few standard variants too and sometimes in a poetic form, having an evident or implied general meaning (or general idea) related to a particular typical common or typical rare field of general human conditions, attitudes or actions, with implied proper scope and limitation of validity. The reference to the general meaning or idea may be direct (maxim-type proverb) or implied (metaphoric proverb).

The people of Asante use proverbs in their day to day conversations, a situation about a person which is regarded as maturity in public speaking and eloquence. Sutherland and Rattray (1969) posited that, Asante proverbs seem to be part of the people, as of a truth all such sayings really are. They contain some

thought which, when one, more eloquent in the tribe than another has expressed in words, all who are of that people recognise at once as something which they knew full well already, which all the instincts of their lives and thoughts and tradition tell them to be true to their own nature.

The Akan proverb is an important conversational weapon in the daily oral life. They make the language more interesting and the more proverbs are added to a conversation the more attractive the conversation becomes. Ofei-Ayisi (1966) indicated that, proverbs make the Akan language short, make listeners reason, draw the attention of listeners to the speaker, and make listeners conscious of listening at public gatherings. Sharing a similar view, Amate (2011), and Obeng (1996) stated that, proverbs play a very important role in the everyday language of the Ghanaian. The languages have beautiful proverbs covering all aspects of life including careful observation of social events, the lives of people and animals, experiences in occupations (such as farming, hunting, and weaving), family and human relations, good and evil, poverty and riches, and joy and sorrow.

During conversation the Asante people generally understand each proverb that is applied or used without further explanation. If the conversation is, however, between an elderly person and a young one, or an eloquent person and ineloquent then a further explanation would be required. Sutherland and Rattray (1969) further stated that, in most cases proverbs explain themselves. Perhaps one man will give an interpretation, one another even in the same tribe; one of another race will almost certainly give yet a third; but, as the Asante themselves say, 'the traveller who returns from a journey may tell all he has seen but he cannot explain all'; this indicates that the meaning of a proverb in one local language may have a different implication in another.

The meaning of Ghanaian proverbs in general could be closely related as corresponding proverbs from different Ghanaian languages. Awedoba (2000) stated that, the *Kasena* proverb, *chworo ba ke kaɔzgɔ lei* (the chicken does not thank the mortar), indicating that fowls keep on picking gains which fall around the mortar. Although the imagery in both cases may be linked to everyday life in a *Kasena* village, the actual proverbial meaning has its equivalent in Akan: *Esie ne kagya nni aseda*. (The *kagya* tree does not always have to thank the termite-hill). In this comparative example, a different imagery is being used which is linked to a different geographical and economic environment (the *Kasena* savannah versus the Akan forest) but the syntactic formulation remain similar.

Proverbs as part of Ghanaian oral literature were used in antiquity and have passed on through the generations as oral traditional culture. They are, therefore; an important form that helps in constructing and maintaining the Ghanaian culture's view of reality. Mieder, Wolfgang, and Dundes (1994) stated that a proverb is a short, generally known sentence of the folk which contains wisdom, truth, morals, and traditional views in a metaphorical, fixed, and memorisable form and which is handed down from generation to generation. Accordingly, Valiulyte (2010) contributed that, proverbs constitute a cultural heritage, which is bequeathed to the current societies by the past generations. They are considered to be the items of traditional knowledge, occurring for centuries over the world.

The origin of Ghanaian proverbs is not known as they are not dated. There are, although, authors of documented Ghanaian proverbs, their sources are all attributed to the forefathers. Paczolay (1998, cited in Valiulyte, 2010) posited that, a proverb has a currency, that is; it is well known and often quoted in a period

of time in a certain small or large language community (or in the part of the community), sometimes in a short form (the rest being implied). In common knowledge it has no known author or literary source. Valiulyte (2010) arguably stated that, when a person takes a dictionary or some other corpus he or she discovers that there are no authors provided alongside proverbs. The authors (composers) of these peculiar expressions are commonly unknown. However, it must be considered that, proverbs as well as everything in a person's life has a beginning – they have been produced either orally or appeared in some written form for the first time. Consequently, the origin of certain proverbs can be retraced through certain ancient sources revealing that proverbs have a long history.

2.5. Collection of Akan proverbs

Gathering of proverbs in Ghanaian languages and sometimes translating them into the English language as manuscripts and subsequently publishing them is known as collection of proverbs. This is used to differentiate between Composers (creators, coiners, or authors) of proverbs, and publishers of proverbs. Opoku (1997) stated that, collection of Akan proverbs began in the nineteenth century with Sir Richard Burton's (1865) collection of two hundred and sixty-five Akan proverbs in his book. The largest collection to appear fourteen years later was Christaller's (1879) *3,600 Twi Proverbs*. Other collectors have been identified in the twentieth century including Rattray (1914), Adaye (1947), Acquah (1940), Annobil (1955), Akrofi (1958), and Ofei-Ayisi (1966). Only very few of these collections have commentaries on the proverbs and the need for more collections with commentaries cannot be overemphasised. The collections in the existence constitute a fraction of the proverbs that are in use among the Akan. Besides,

most of the elderly people who have a large stock of proverbs are passing away and taking their vast knowledge with them and it is urgently important that a concerted effort is made to collect more proverbs before it is too late.

2.6. Proverbs and idioms

Another form of wise sayings is known as idiom, also known to be part of speech. Idiomatic expressions are used publicly by linguists, family heads, and spokespersons when they do not want to use raw language that will be understood by all the listeners. This means that only a particular class of the audience will be communicated to at the time of idiomatic expression and that makes idioms unpopular or not well-known as proverbs are. However, Buaduo (2012) citing from Christaller, (1933), Appiah, Appiah and Agyeman-Dua, (2007) argued that, the Asante ethnic group of Ghana do not always favour clear and direct statements in their speeches. Proverbs and idioms are used when people do not want to be immediately and directly understood, especially, where a double meaning or prevarication is required. Proverbs and idioms are used to emphasise statements or arguments where it is desired to show that there is precedent action to be taken. The actions are interpreted in terms of the past by giving the aura of the conventional by their associations with familiar forms of words. Ahene-Atttoh (1976) argued that, idiom is seen to be related to proverbs but it is a bit different. When proverb is used to clarify situation in a sentence idiom is not that way; it rather makes understanding of the sentence difficult. This means the idiom is a complex way of expressing an idea. As a result, idioms must be learnt to capture their meanings. – If at a durbar a speaker does not want to unveil a statement for everyone to understand, he uses the idiom, *baabi ase* (a place is destroyed) or

odupɔn atutu (A big tree has fallen) to denote, ‘the chief is dead’. Zolfaghari and Ameri (n.d) propose that, a proverb is a short sentence, which is well-known and at times rhythmic including advice, sage themes and ethnic experiences, comprising simile, metaphor or irony which is well-known among people for its fluent wording, clarity of expression, simplicity, expressiveness and generality. While Ahene-Attoh (1976) has drawn a clear line between proverbs and idioms, and Zolfaghari and Ameri’s (n.d) proposition clearly differentiates proverbs from idioms.

2.7. Akan proverbs and tales

Most Akan stories or tales are told by elderly people to members of the family especially, children and grandchildren in the evenings in the Akan communities. At the end of the tale is usually a proverb that serves a lot of purposes including advice, warning, direction, encouragement and amusement. The Akan in Ghana and the Asante in particular coin tales from proverbs. A set of tales or stories popularly attributed to the spider as *Anansesem* (Spiders’ Tales) are created on moral grounds as a way of instilling moral lessons and discipline to especially the youth; these tales usually end with proverbs. Ackah (1988) stated that, the stories abound in Akan land are nearly all classified as *Ananse* tales. When adults assemble around the fire on a coal night, or when they sit at ease on the compound of their home or just outside the house on a warm evening, or when they wish to amuse themselves at the end of a meal, that follows the toil and labour of the day, they entertain themselves with and learn from *Anansesem*. *Ananse* tales are about vices and wrongs, and the punishments that follow them. Garrard (1980) affirmed that, the Akan are born story-tellers and the ability to quote an

appropriate proverb could be employed with great effect to take a discreet allusion or to point a moral in a delicate and inoffensive way.

2.8. Composition of proverbs

Composition of a proverb is a creative way of coming out with a wise saying by observing events, natural and unnatural objects and relating them to the normal human life as advice, warning, or encouragement. Proverb composers are good informants who are valuable repositories of the wisdom of Ghana's forefathers. Dzobo (1975) stated that, an important requirement in the composition of proverbs is the skill of careful observation and reflection on the ordinary events of life, and secondly, the ability to deduce a moral lesson from such events.

Proverb composition or creation is not commonly observed in the Ghanaian oral tradition as those who frequently apply proverbs in ordinary conversation begin with, "according to elders", or "our elders say", an indication that Ghanaian proverbs are of unknown composers or originators and cannot therefore, be dated. Y. Barimah (personal communication, 2012) said, he had never observed the creation of proverbs in any of the proverb competitions he had participated because all the competitors started by referring the proverbs to either elders or particular persons who frequently used those proverbs in daily conversations, public speeches, or even in typical Asante folk songs. He said most of the proverbs during the competitions came from memory and sometimes while claiming that he is the composer of a particular proverb a counter proverb and a sequel proverb would come from his competitors all beginning with "our elders

say”. This he claimed support the Ghanaian proverb that ‘*asem ba a na abɛuo ba*’ (a proverb comes only when an incident occurs); ‘*asem nnyae ba a yɛnnyae die*’ (as long as offensive issues have not stopped litigation would not stop); and ‘*asɛnkɛsɛ da hɔ kyɛ a asɛnketewa tumi nyane no*’. (if a serious matter is left dormant over a lengthy period, it could be awakened by a trivial one).

The suggested information by Barimah (2012) indicated the reliability of proverb composition from memory through the wisdom of our forefathers, and supported by Lange (2006) that, Dagbani proverbs are the collective wisdom of the Dagomba of Ghana that have been passed down through the elders from time immemorial. Proverbs are not only short statements that reflect the thought and insight of a people into realities of life, but are also a technique of verbal eloquence. They are the reflection of the elders on the experiences on life and their environment, which is predominantly a moral and traditional one. — When a proverb is used it is often preceded by the statement, ‘the Dagbon elders say’.

Similarly, Ackah (1988) stated that, the origin of any proverb has usually been a terse, pithy or metaphorical statement which falls from the lips of a wise or elderly person, such as a chief, his linguist, or a respected or wealthy man, in a particular situation or context. If it impresses his audience as rich and pregnant with wisdom, any of them may quote it in a similar situation, and soon it becomes a popular wise saying in the language of the people. In the case of proverbs with moral significance, they become current and popular, if they are acceptable to what might be called the social conscience of the tribes. Linguists and chiefs are accepted among all Akan tribes as the class of people who have the greatest mastery of proverbs. Being the best exponents of this form of speech, they have an

excellent manner of employing proverbs in messages, speeches and during hearing cases, so that it is always a treat to listen to a linguist addressing a gathering.

2.9. Use of appropriate or relevant proverbs

Proverbs are although, used mainly in Akan oral literature; they are also applied in other areas as motifs in textiles, pendants in jewelry, and decorative designs in the construction industry. Dolphyne (1996), stated that the use of appropriate or relevant proverbs in one's speech is considered a mark of eloquence. These eight common proverbs given are also used as names for certain wax prints. Usually, though not always, the main noun in the proverb refers to the motif in the wax print. '*Woafa me nwa*', (you have caught me like you would catch a snail); '*dua korɔ gye mframa a ɛbu*', (if one tree stands in the path of the wind, it falls); '*ahwene pa nkasa*', (precious beads do not rattle); '*anoma antu a ɔbuada*', (if a bird does not fly it starves); '*kɔnkɔnsani bɛbrɛ*', (the gossip will suffer in life); '*owuo atwedɛ baako mfo*', (death's ladder is not just for one person to climb); and '*ohuriɛ si akyekyerɛ akyi a ɔsi hɔ kwa*', (if the tsetsefly stands on the back of the tortoise it wastes its time).

The study therefore, agrees with the explanation that the main noun in the proverb is identified and used as a motif for textile designing. These motifs could however, be made as silhouettes and used as pendants in jewellery, and symbols for metal work, ceramics, sculpture, and graphic design.

2.10. Contemporary period

This study on production of goldweights that interpret contemporary proverbs in Ghana differentiates goldweights based on classical proverbs from goldweights based on contemporary proverbs which are made to depict current and recent events, themes, and objects. Contemporary things occur simultaneously or around the same period that could be described as modern and most current. In Ghana, many artists, and public entertainers are known to belong to the contemporary world of artists and artistes respectively taking into consideration their styles of blending their own created styles and old ones which were recently considered as modern styles. The contemporary period in Ghana does not have a particular starting date, however, different authorities have given their views to draw a line between the modern and contemporary periods using for example; artists and their artworks based on modern history.

The Collins English Dictionary (2005) explains contemporary as living or occurring in the same period; existing or occurring at the present time; conforming to modern ideas or style and fashion; and having approximately the same age as one another.

Recent goldweights include themes of contemporary lifestyles and genre subjects such as bicycle and motorcycle riders. Technically they demonstrate more refined design and finish. They constitute a major attraction in the tourist art market of the late Twentieth Century. (Fosu, 1994). Stiles (2012) posited that, encompassing a range of views from the mid-Twentieth Century to the early Twenty-first Century, there was confirmation of unprecedented transformations in the structure of the visual arts, the identity of the work of art, and the perception of what it means to be an artist. *'Theories and Documents of Contemporary Art'*

contains many of the most challenging aesthetic ideas of the past six and a half decades, writings that have been instrumental in instigating new ways of thinking in the visual arts.

Brivati *et al.* (1996) denoted that, the contemporary period is a subset of modern history which describes the historical period from approximately 1945 to the present.

Contemporary art and contemporary music are activities based on which the contemporary period could be determined as part of modern history. Yayoh, Wilson, Amlor, Frimpong-Nnroh, and Alidza (2015) explained contemporary music as music based on African melodic and rhythmic structures that makes use of western harmony, employs a blend of both African and Western musical instruments as its rhythmic foundation. This new African music is performed in the church, concert halls, and at local and national functions. The musical instruments are a blend of both African drums; bells, rattles, xylophones, and castanets, and Western guitars; organs, trumpets, jazz sets, and amplifiers. Contemporary African musical types performed are Highlife music which is popular in Ghana, Juju music from Nigeria, and Gospel music which has impacted on the music traditions of African societies. Gospel music, which is contemporary African music developed in Africa through Western technology that brought a plurality of synthetic and entirely foreign brands of music to Africa and has caught up with almost all African Christian influenced churches and communities with the aim of shaping the lives of the people both physically and spiritually.

Yayoh, Wilson, Amlor, Frimpong-Nnroh, and Alidza (2015) indicated that Contemporary highlife music is one of Ghana's most important and highly

patronised musical types composed by Ghanaian musicians and partly accompanied by Western musical instruments like strings, wood, and brass wind instruments. This music which was used around the early 1920s in musical concerts and drama became the main source of information, education, and entertainment to the Ghanaian rural and urban poor.

Brivati *et al.* (1996) noted that adult contemporary music is a form of radio-played popular music ranging from 1960s vocal and 1970s rock music to predominantly ballad-heavy music of the present day, with varying degrees of easy listening, pop, soul, rhythm and blues, quiet storm, and rock influence. Contemporary art is the art of today produced by artists who are living in the Twenty-first Century, and it provides an opportunity to reflect on contemporary society and the issues relevant to ourselves and the world around us. A contemporary society is also a setting characterised by technological innovation and increasing human interconnection and globalisation. It brings about changes such as increased life expectancy, literacy and gender equality, bringing a natural equilibrium.

Most elements of early modern history especially designs in art forms are very popular and are being incorporated into contemporary designs. This is evident in with the use of *Adinkra* symbolism in textile printing, jewellery making, wood carving, and furniture production. Assessing the difference between modern and contemporary, a document by Relish Interiors (2012) identified that modern and contemporary in interior designing are not the same. Whereas modern design refers to a design style that was created in the 1920s to 1950s and does not change and will remain such forever; contemporary design is ever changing and it is

existing, occurring, or living at the same time and can be eclectic for that reason because it is ever changing and borrows pieces and styles from all other eras.

Relating contemporary to modern, Gyekye (1996) suggested that, making a transition to modernity involves profound and perhaps also radical changes in several aspects of the culture of the people. The changes must also be sufficiently progressive to bring about the enhancement and fulfillment of human life. The idea of profound changes suggests the conviction that modernity must be seen in terms of the innovative spirit of an unrelenting commitment to innovation. This leads on to the need for a society to commit itself unreservedly to making such necessary changes in its values, practices, and institutions inherited from the past as to make them really worthwhile and functional in the contemporary world. An innovative spirit is the most outstanding feature of modernity; but the foresight to perceive which aspects of the cultural life of a people should be brought within the scope of the innovative enterprise is equally important. The far-reaching consequences of the activity of a dynamic innovative spirit will be the attainment of a new stage in cultural development, characterised by advanced forms of human knowledge, techniques, and socio-economic structures.

Innovation, however, does not by any means imply a rejection of the entire cultural heritage of a people; it emphasises the conviction that modernity in many respects compatible with tradition and therefore, does not represent a break with tradition as such. It would be true to say that every society in the modern world has many traditional elements inherited and accepted from previous, that is, pre-modern generations, that every modern society takes pride in several of these elements and builds on them. Many of the enduring elements of modern societies

can be traced far back into their past. This means that tradition is not necessary at variance with modernity. (Gyekye, 1996).

The contemporary period is again characterised by the dominant use of Information and Communications Technology (ICT) in facilitating communication and information sharing with drivers such as cellular phones, laptop and desktop computers, robots, Automated Teller Machines (ATMs), remote controls, and web applications. Brivati *et al.* (1996) stated that, the Information Age or Information Era, also known as the Age of Computer, is an idea that the current age will be characterised by the ability of individuals to transfer information freely, and to have instant access to knowledge that would have been difficult or impossible to find previously. The idea is heavily linked to the concept of a Digital Age or Digital Revolution, and carries the ramifications of a shift from traditional industry that the Industrial Revolution brought through industrialisation, to an economy based around the manipulation of information. The period is generally said to have begun in the latter half of the Twentieth Century, though the particular date varies. The term ‘contemporary’ began its use around the late 1980s and has been used up to the present with the availability of the internet.

2.11. Contemporary proverbs

Contemporary proverbs are proverbs that are composed with reference to contemporary items, objects or recent themes as the main characters and as such could be dated. Most Ghanaian proverbs are ancient, however; they were created or coined newly at certain points in time by people who are now attributed to as forefathers. Most of the items used in contemporary proverbs have no known local

names. As there are written records through oral tradition so as contemporary proverbs could be coined from indigenous Ghanaian proverbs. Moon (n.d) stated that, indigenous proverbs are creative expressions using the local language and reasoning processes. As such, the appropriate use of proverbs promotes additional creativity and opens further worlds of discovery. When tapped into, this creative force can encourage contextualisation. Litovkina and Mieder (2006) noted that, innovative transformations of proverbial wisdom are an important phenomenon as they discuss various social problems, such as AIDS, education, politics, work, love, sex, money, and air pollution. In general, they deride and reject values of common proverbs as being too naïve and introduce ideas that depict social problems and challenges of contemporary times. The Encarta World English Dictionary (1999) and the Merriam Webster's Collegiate Dictionary explained contemporary as, existing occurring, living, coming into being, or dating from the same period of time as something or somebody else. However, the Collins Cobuild Advanced Learner's English Dictionary (2006) explained contemporary as things which are modern and relate to the present time; and modern, as any means relating to present time, for example, the present decade or present century. It further states; 'something that is modern is new and involves the latest ideas or equipment'. The Encarta World English Dictionary (1999) relating contemporary to modern further explained the modern period as: 'Relating or belonging to the present period in history; using the latest styles relating to or using ideas and techniques that have only recently been developed or are still considered experimental'.

Dzobo (1997) stated that, 'the art of composing proverbs is not at all dead. New proverbs have been composed by using present day experiences. Two

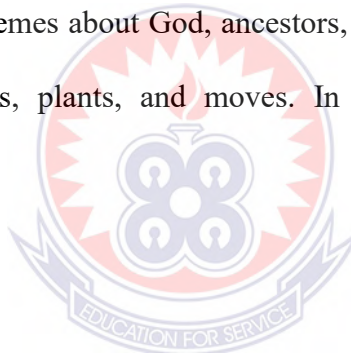
such proverbs are firstly; *life in Europe is not easy otherwise the Whiteman will not cross the seas*. This proverb is derived from our contact with the White and so can be roughly dated. The second; *the load from a lorry is removed in bits*. This is a way of showing that one should not be in a hurry to achieve too much in a go; one is likely to accomplish a great deal based on a little at a time. Because of the use of the “lorry” this proverb can also be dated’.

2.12. Significance of proverbs

The very fact that proverbs are used by our contemporaries proves that they still play a significant role in modern age societies; they are independent of time and are strongly rooted in the minds of people. Although, they appeared at a certain time and place, proverbs became traditional folk expressions due to their long-term frequent usage. They maintain their currency, because these expressions reflect what is considered to be a general truth (Valiulyte, 2010). Proverbs reflect mode of life, relationships, views, trades of people of different centuries. Thus one can see that some proverbs might depict scenes specific to a certain historical period or contain distinct words or phrases characteristic of it. – Even though through proverbs students develop their thinking and imagination, enrich their vocabulary and are introduced with the wisdom of the folk people, these peculiar folk expressions are seldom used in schools for educational purposes. Due to lack of knowledge of proverbs, students may not recognise them and may not interpret them properly when encountered in social life. Being the case proverbs become rarely used by younger generations and consequently they leave everyday speech. (Malinauskiene, 2004, cited in Valiulyte, 2010). Valiulyte (2010) advised that, proverbs are a product of human mind, which resulted from generalised

experiences and observations, hence; it is natural that these units are often met in everyday life and are constantly used by people for practical purposes.

Proverbs form part of many Ghanaian languages and Awedoba (2000) postulated that the proverbs of the Akans of Ghana are one of the most documented West African cultural entities; the few *Kasena* proverbs analysed showed similarity to most Akan proverbs. Tetteh (n.d.) observed that, Akan proverbs are the main ingredients in the Akan language. They are small words, symbols, anecdotes or stories usually represented in all respects of Akan culture, and always have didactic significance given in context of the beliefs of the Akan people. Proverbs act as catalyst of knowledge, wisdom philosophy, ethics and morals. They cover themes about God, ancestors, human beings, marriage, family, death, values, animals, plants, and moves. In all aspect of life the Akan is embedded in proverbs.



2.13. Goldweights

Goldweights are miniature models of major nouns in Ghanaian proverbs, themes of folk stories, and major events, usually made of brass, used as a measuring system by the Akan people for weighing gold dust and nuggets; their main currency until replaced by European currencies. Goldweights were based on particular known measurements that ensured acceptable medium for exchange that came to replace the barter system. Kyerematen (1964) stated that, goldweights are perhaps the best known of Ghana's artifacts; they and wooden fertility dolls are usually used to represent Ghana in books on African Art. They are made of copper, bronze or brass by the *cire-perdue* method of casting, from wax models enclosed

in clay. Arhtur, and Rowe (2001) indicated that, goldweights, also known as *abrammoo*, cast from bronze or copper using the *cire-perdue* method, served the basis for denominating gold dust as money. These weights were not only valued aesthetically, but they were also valued as the repository for certain aspects of the Akan knowledge systems as they served as visual markets for recalling among other things , proverbs, historical events, or everyday expressions. Sutherland and Rattray (1969) stated that the weights commonly known as Ashanti's weights are cast from metal by the *cire-perdue* process and often show a high degree of aesthetic art. Each weight is designed to represent some object; man, woman, animal, hunting-belt, and also pumpkin.

Goldweights are said to be used by the Akans of which the Asante people constitute a part. It is well known in many circles as Asante goldweights. Gyanfosu, Sey, Korsah, Yayoh, Agyeman, and Obeng (2010) posited that, the goldweights of Asante attest to the gold production industry and the craftsmanship that made it a rich and proud people. In the same vein Asmah (1992) postulated, that goldweights of the Asante are among the most fascinating of West Africa's art forms; they reflect the wealth from which the Gold Coast now Ghana, took its name. However, they did not exist in isolation, but had frequent contact with other West African people and also with Europeans. In bringing together those of different backgrounds this commerce favoured the spread of cultural influences, enabling knowledge of weights to be transmitted from one people to another.

There were other uses of the goldweight apart from its role in weighing gold dust and nuggets. Arthur and Rowe (2001) noted that, the goldweights, like other Akan art, were created and used like spoken language, to commemorate social or historical events or entities, to express philosophical or religious views,

aspirations, and dreams, or simply to ask questions, or to express displeasure. - They further stated that, there were thousands of goldweights that could be divided into four broad categories on the basis of their appearance; figurines that portray various human forms and human activities; depict human forms and human activities; fauna and floral patterns of the country; those that depict human made objects; and those of geometric, abstract, or purely ornamental designs. Each of the goldweight is encoded with a proverb, a story, an aphorism, myth or some other aspect of the extensive Akan oral literature and songs. Asmah (1992) affirmed that, philosophy plays an important role in the brass arts of Krofofrom. The brassmen employed proverbs, expressions and history in their brass arts in order to preserve them. These proverbs have been arrived at through careful thinking and observation of nature, the inherent qualities of the particular things and their dilemma in life. The proverbs are also observations of the society; what the society should arrived for, and how members of the society should behave. To express themselves in the brass arts, they slowly and carefully, evolve some symbols including the observed things in nature. Garrard (1980) added that, it is well known of goldweights depicting human figures, animals and other objects often represented popular sayings or proverbs, and they are referred to by some writers as proverb-weights. Gyekye (1996) supported the idea that, the Ghanaian artist contrasts what he considers the Akan conception of art with the European emphasis as “art for art’s sake”. In the Akan, and what most writers would regard as African conception of art, the aesthetic value of a given African work of art is determined by its functional value or symbolic aspects.

2.14. Origin of goldweights

Labi, K. A. (2008 cited in Garrard, 1980), stated that gold was mined in Ghana for several centuries. Its lustre, brilliance, rarity, and malleability made it a preferred metal among the Akan and many other West Africans for use as jewellery and adornment for Kings, Queenmothers, and the wealthy. Whether in its raw state as ore, dust or nuggets, or made into works of art, gold became part of the state's treasury and was equated with economic stability and prosperity. Gold therefore attracted Muslim traders and craftsmen from the Western Sudan cities of Jenne and Timbuktu. The traders included Mande migrants, the Ligbi and Dioula, who came to the Akan as well as non-Muslim craftsmen called Numu. The Numu, often called blacksmiths and were responsible for the transfer of their skills in brass casting through the settlements they set up in the Akan areas where they traded.

Labi, K.A. (2008) posited that, through the international demand for gold to the northern Africa market, it acquired a high value requiring a precise method for sale. Every significant gold trader had a set of weights, either of seed, stone, iron or later cast brass weights, and weighing scales. These sheet and cast brass objects are commonly called "goldweights" and acquired great significance in the gold trade with several types being created locally and some introduced from different parts of the world. The use of goldweights as counterbalances in selling gold probably before the end of the fifteenth century, as Portuguese traders who arrived on the coast noted in their sixteenth and seventeenth century chronicles that the Akan were already using them. Their use ended around the mid-nineteenth century.

Some of the most popular pieces of Akan art are the Akan goldweights which were made of copper, bronze, and brass, and were cast using the lost-wax technique. Goldweights were created for economic transactions involving gold and it is not clear when the convention of weights were first introduced. The Akan first traded gold with Muslim merchants from the West African interior long before the European contact. The weight system corresponds to the Islamic weight system of North Africa, and appears to be part of early sub Saharan trade. (Wikipedia/akan-art, 2015).

Gold trade that was carried out in Ethnic Ghana between the Fourteenth Century and the Seventeenth Century started as an economic activity that involved the use of balance scales and counter balances of Islamic origin as a result of the gold trade between the Akan and the people of Western Sudan. However, after sometime the Akan made their own weights of cast metal blocks with geometric designs inspired by the Islamic weights, and later developed figurative weights both in human and animal forms; an indication that the goldweight is of Akan origin.

2.15. Owners of goldweights

K. A. Sarpong (personal communication, December, 2001) said that goldweights occupied a respectable position such that only chiefs, elders, and wealthy people could own them. Women were not allowed to own goldweights until when its use was banned; however, it became obvious for women to own them after the 1920s when they were sold to European merchants. A known female

goldweight collector was Peggy Appiah who studied Asante goldweights and wrote extensively on both the figurative and geometric pieces.

The status of a man increased significantly if he owned a complete set of goldweights. Complete small sets of goldweights were gifts to the newly married men, insuring them of successful and respectable entry into the merchant trade. (Appiah, 1993 cited in Wikipedia, 2015).

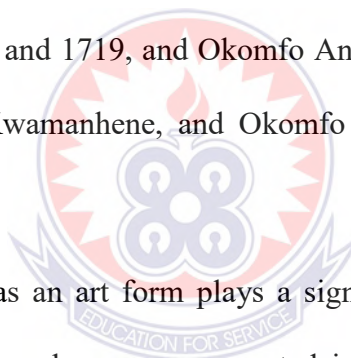
2.16. Production period of goldweights in Ghana

Most goldweight collectors in Ghana cannot provide exact dates of production of their collections because some inherited them while others purchased theirs from non-Ghanaian nationals. Production is currently based on the use of metal scrap which might already have undergone processes of recycling. Oral and artistic traditions therefore, provide information on provenance and production periods of goldweights especially in Asante. Amoaye, (p.c. 2002) stated that, his predecessor had no idea about the dating of the geometric weights in his palace; however, oral records indicated that the weights had been kept in the palace for over 500 years. Appiah (1993) contended that, stylistic studies of goldweights can provide relative dates into two, namely early and late periods. The early period is thought to have begun from 1400 to 1720 AD, with some overlap with the late period from 1700 to 1900 AD. There is a distinct difference between the early and late period weights; while geometric weights are the oldest forms dating from 1400 onwards, figurative weights in the image of human beings, animals, and buildings first appeared around 1600. He further states that radiocarbon dating which is a standard and accurate method in many disciplines

cannot be used to date the weights because they are made of inorganic base materials including copper and zinc which makes the alloy and which are exponentially older than the artifact itself.

2.17. Goldweights and proverbs

A number of Ghanaian proverbs and events exist in visual forms depicted in a variety of media such as pottery, paintings, etchings, textiles, and sculptures (wood, clay, cement, and metal). The Okomfo Anokye statue situated in front of the Komfo Anokye Teaching Hospital (K.A.T.H.) in Kumasi represents a period of history in the lives of the Asante. Osei (2004) indicated that, Nana Osei Tutu who reigned between 1695 and 1719, and Okomfo Anokye were enstooled at the same time; Osei Tutu as Kwamanhene, and Okomfo Anokye as Agonahene in their respective towns.



Goldweight as an art form plays a significant role in the philosophical lives of the Akan. Proverbs were represented in these forms as preservation of philosophical ideas to the future generations. Kjersmeier (1948), Leyten (1979) and Meyerowitz (1949) posited that, the weights were not only used in commerce but in other ways in everyday life. In justice, for instance, it was possible to obtain absolution from punishment for most crimes by paying a fine in gold dust in accordance with a certain weight. When the King wanted to enforce a decree he often did so by having weights moulded with a symbolic meaning. Besides the weights were also used by professional storytellers to illustrate the course of events in their story, and as a means of communication from man to man, a proverbial meaning will often be attached to the figurative weights. Asmah (1992) claimed

that philosophy plays an important role in the brass arts of Krofofrom. The brassman employed proverbs, expressions and history in their brass arts in order to preserve them. These proverbs and maxims have been arrived at through careful thinking and observation of nature, the inherent qualities of the particular things and their dilemma in life. The proverbs are also observations of the society; what the society should strive for, and how members of the society should behave. Garrard (1980) and Phillips (1996) affirmed that, goldweights depicting human figures, animals and other objects often represented popular sayings and they are referred to by some writers as proverb-weights. Goldweights have a wider significance; primarily they represent Akan proverbs, serving as a mnemonic device to call to mind a particular proverb or saying.

There are also busts of three High Court Judges at the premises of the Supreme Court in Accra representing the abduction and killing of three Supreme Court Justices and a Retired Army Officer in 1982. Yidana (2002) argued that, ‘the gist of the message was that three High Court judges, namely Mr. Justice Sarkodie, Mr. Justice Agyapong, and Mrs. Justice Cecilia Koranteng-Addow, had been picked up by unidentified persons in plain clothes from their respective houses the previous night and taken to an unknown place. — In the evening the Chairman of the Provisional National Defence Council (PNDC) gave a speech to the nation and used the occasion to extol the virtues of his revolution as follows:

*Fellow countrymen, yesterday evening, Saturday, 3rd July 1982,
I was informed that four corpses had been found in the Accra Plains.
Investigations have revealed that these were bodies of the three judges
abducted on Wednesday (30th of June) evening together with the body of
Major Sam Acquah. The three judges are Mrs. Justice Cecilia*

Koranteng-Addow, Mr. Justice K. A. Agyepong and Mr. Justice S. P. Sarkodie.

I wish to express my horror and that of the Government at these heinous acts of terrorism. We condemn these acts from the depth of our hearts that they are against the principles, which this revolutionary process is designed to advance.

The statue and the busts discussed are monuments that convey historical messages of both the Ethnic and Independent Ghanaian people. In Christianity there are religious images that convey messages of the role played by certain individuals of the early Christian church. These include the crucifix, statue of Jesus Christ's mother (Holy Mary) which is evident in most Catholic cathedrals and grottoes, and the numerous religious icons of early prophets, apostles, and disciples of Jesus Christ.

Most of the goldweights of the Asante as well as other metal objects are cast to provide meaning to certain actions and activities including proverbs, hence; the proverbial weights which are either figurative or abstract. The goldweights are cast to depict ideas in the proverbs by relating to a major noun or activity in the proverb. By merely looking at its configuration the viewer memorises the associated proverb and its interpretation in that particular situation. Opoku (1997) indicated that, the Akan traded in gold with outsiders and counterweights for measuring gold and gold-dust, cast in brass, were used. In most cases ordinary people used brass weights, but the King and some real dignitaries also had weights which were cast in gold or silver. The weights were cast by goldsmiths whose profession has as aura of sacredness about it. The oldest weights were geometric

in form, but there were other weights shaped in the form of people, trees, animals and objects which represented proverbs, stories, legends or historical events.

Much of the information on goldweights is taken up with their association with proverbial mottoes. Akan conversation is made lively by apt use of well-known sayings, and formal speech is partly judged by the ingenuity with which proverbs are deployed, often with an original twist that will earn a murmur of approval from the listener. In an oral culture knowledge is stored in and extended by speech, songs, anecdotes, and the recitals of history and lineage. As themes multiplied, goldweights provide a memory with its illustrative identity. (Phillips, 2010). Ross (2002) explained that, the subject matter of Akan arts ranges from the flora and fauna of the local environment to most of their material culture to images of themselves involved in important social, religious, and political interactions, as well as more mundane situations. It can be argued that, no other African culture represents more of its worldview in its arts than the Akan. Even more interesting than the range of imagery, the vast majority of depictions represent the 'oral literature' of the verbal arts of the Akan as well. Typically these verbal representations take the form of proverbs, but lengthy folktales, short boasts, insults, praise poems, jokes, riddles, and other verbal forms also appear. – Akan goldweights include more of these images than any other object type. Despite their name these are actually brass castings used as counterbalances in the weighing of gold, but they far exceed in creativity what is in most cultures, a staggered set of simple forms of slightly varying sizes and weight.

Gillon (1984) observed that, many, though certainly not all, figurative goldweights represent proverbs, which are an important aspect of Akan life and culture. While

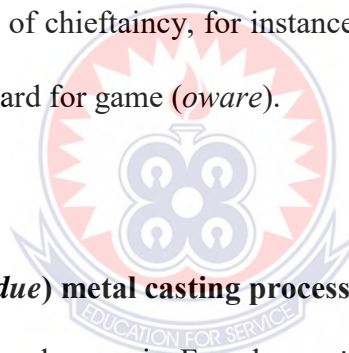
some were made to illustrate well-known proverbs, others included the coining of new ones.

On the use of proverbs for casting other objects, Fraser and Cole (1975) said that, the sword decorated with a treasure container called *kuduo* signifies the responsibility of the King for his people's maternal needs. It is associated with the proverb; *the big pot provides for many* and is used when the *Asantehene* sends a message to the Queenmother. Similarly, Rachewiltz (1966) claimed that, the shape of the *kuduo* varies, there is a box type; and there is one shaped like a vase which swells out at the base, narrows at the middle and widens again towards the mouth. All the types are supported by small feet. They were produced by means of *cire-perdue*, as were the other minor bronze works of the Ashanti and the Baule, notably the well-known weights called *mmrammuo* which were used to weigh the gold dust.

Production of proverbial goldweights could also enhance advertisement of Ghanaian proverbs. Analysing visual representation of proverbs, Naciscione (2015) reiterated that, Mieder's (1989) contribution to visual representation of paremiological thought lies in a detailed and exciting account of the use of proverbs in visual representation, their context and purpose. Mieder (1989) stated that 'metaphorical proverbs can be described as verbalised pictures, and it is only natural that modern artists will continue to translate the images into effective pictures commenting on the concerns of our time'. Mieder's works present cases of striking and innovative use of proverbs in advertisements, including creative headlines and effective advertising slogans. When discussing use of proverbs in the ever growing world of advertising, he points out that many advertisements are built on proverbial structures. Advertisers often introduce changes to standard

proverbs in an effort to promote their product and make it memorable and recognisable. With advertising growing fast, resorting to new means and modes of visual representation, it opens up a vast field of investigation for paremiologists.

Although, most figurative proverbial goldweights are cast in human, animal, and other natural forms; however, there are few of the weights which are cast to represent man-made objects that could be used in the composition of proverbs. Phillips (1996) noted that, this group of weights provides unique evidence of the range of artifacts used by the Akan in past centuries. It includes domestic furniture, items of culinary equipment, weapons and tools, implements for use in agriculture and hunting, and an extra ordinary range of objects connected with the paraphernalia of chieftaincy, for instance; woodcutter's axe, ladder, stool, and carved wooden board for game (*oware*).



2.18. Lost-wax (*cire-perdue*) metal casting process

Lost wax, also known in French as *cire-perdue* is the process used in producing goldweights or counter weights for measuring gold dust and gold nuggets, the main currency of the Asante in Ethnic Ghana. The process involves the modelling of beeswax into a desired shape and coated with slurry of a mixture of fine charcoal and powdered clay. The coated model is embedded with clay or other refractory materials, leaving a small area uncovered. The refractory material is allowed to dry after which the whole investment is heated to melt out the wax through the uncovered area known as the sprue, which creates a passage for molten metal to be poured through into the mould cavity. The expendable mould is broken up after solidification of the molten metal to retrieve the casting which could be

made in both solid and hollow forms. Adu-Akwaboah (1994), Kyerematen (1964), Fox (1988), Asare (1981), Untracht (1985), and Ghana Museums and Monuments Board (1970) explained the lost-wax process as a method of metal casting in which a wax model is inlaid with clay or other refractory materials leaving a small area uncovered. The clay is allowed to dry after which the whole investment is heated until the wax is melted out which creates a passage for molten metal to be poured through into the mould cavity. The mould is broken up after solidification of the molten metal to retrieve the casting. Vansina (1984) stated that, lost wax casting involves the construction of a ceramic mould, the core, on which the icon to be cast is modelled in wax. The core is then covered with a hollow clay mantle and fixed to it to keep it relative position. The completed structure is then heated up till the wax runs out, leaving an empty space in which the molten metal is then poured. Okyere-Boateng (2003) wrote that the process was practised during the classical period in Ethnic Ghana and it is still in use. Similarly, Chilvers and Osborne (1988) stated that the process was used by the Egyptians, Greeks, and Romans, and is still the main means of casting used for traditional bronze sculpture.

The lost-wax technique is employed in both solid and hollow casting, and according to Goetz (1988), lost-wax is a method of hollow metal casting and small solid castings in which a layer of wax corresponding to the desired shape is enclosed within two heat-proof layers. During heating the plaster dries and the wax runs out through ducts created by the wax tubes. Molten metal is poured through the ducts filling the cavity and when cooled, the plaster is removed to retrieve the casting.

The lost wax process is common on every continent except Australasia and dates back to the third millennium B.C. (Chiverns & Osborne, 1988; Goetz, 1988).

2.19. Asante lost-wax metal casting technique

The Asante lost-wax metal casting technique differs from the main process described by Adu-Akwaboah (1994), Fox (1988), Plass (1967), and Untracht (1985). The Asante technique does not involve separate melting and pouring of molten metal; it rather entails the encasing of both the mould and a crucible containing pieces of the metal to be used in the casting such that the molten metal runs through a sprue to fill the mould when inverted. Phillips (2010), Mcleod (1981) Gidal, (1971), and Rattray (1927) explaining the Asante lost-wax casting technique postulated that, the model of the casting is made in wax and encased by degrees in a ball of clay provided with pipelines through which wax can be poured out. Sealing coats are painted over the wax using a very mixture of charcoal and clay applied and grafted between the two units until the whole model is encased. The process of casting begins by heating the ball-like mould that encases the model until the wax within becomes liquid; it is turned upside down so that all the wax runs out. A cup is made of similar clay and filled with brass scraps more than equal the volume to the model and is attached to the mould to act as crucible. The metal smith makes a generous estimate as to how much brass is needed to make sure that, the cup covers all the sprue openings. Both cup and mould are then sealed together by the application of more clay, resulting in a union of both, shaped more or less like a giant peanut. With the heat at its maximum, the crucible end of the mould is kept on the furnace. When the liquefied metal is

judged to be bubbling the whole object is speedily inverted so that the molten brass goes down the channel provided by the sprue and spread out into the blank space vacated by the wax model. Hof and Lesslauer (1994) stated that the casting process starts with wax modelling, followed by mould preparation, removal of the wax to get the mould ready for casting, encasing the pieces of brass together with the mould, casting, removal of the mould, breaking of the mould to remove the cast objects, and cleansing of the figures. Okyere-Boateng (2003) supported the Asante technique with the claim that, in the case of closed sprue method (Krofofrom process), the metal to be cast and the mould are embedded together. After encasing the wax model with the refractory material, the metal to be cast is placed on top of the sprue, and the same material used to coat and join them together in one mould. The moulds are parked into a furnace and fired until the metal melts; this is detected by the appearance of a bluish flame. Using a pair of tongs the moulds are picked and turned over for molten metal to flow into the mould cavity. That part of the casting created by the sprue is cut or filed off, and any blowhole created in the casting is filled with lead. The process is employed in the casting of goldweights and miniature sculptures.

The Asante lost-wax metal technique also includes the casting of hollow objects that involve casting in between two layers of inner clay model and an outer coating. This process of hollow casting is usual with the production of large castings. Sutherland and Rattray (1969) explained the production process of goldweights as follows; a rough model of the object desired is worked in clay; when dry this is coated all over with beeswax, and all the finishing touches added. The whole model is covered over with clay, a duct or passage being left leading to the wax. The clay is then heated and when the wax runs out leaving a space

between the first and second layers. Into this the molten metal is run. When the clay is broken, the metal model is found.

This Asante technique of lost-wax casting is believed to have originated from Asante (Agyeman, personal communication, 2002; Leuzinger, 1992).

Phillips (2010) said, a refined version of the lost-wax method is found in fairly rare instances of weights that are hollow cast. These are made with a core of material akin to the clay of the mould. Around the core the shape to be made is formed in thin wax with enough apertures so that after the object is cast the core can be chipped away via the gap until it crumbles and is eased out in pieces. The resulting brass shell would then be very large in proportion to its height. Goldweights of the type are usually made and restrict their subject matter to those animals and emblems that have also a heraldic function in court regalia as sword embellishments.

Explanations about production of goldweights by the *cire-perdue* processes are usually silent on the relationship between the weight of the wax model and the weight of the metal to be used in casting. Phillips (2010), McLeod (1981) and Rattray (1927) claimed that brass scraps more than equal the volume to the model are employed during the casting process. K. A. Sarpong (personal communication, January, 2003) was mathematical, and provided considerable insight with the use of brass in *cire-perdue* casting and postulated that, knowing the *specific gravity* of the metal to be used in the casting is important such that the weight of the wax model multiplied by the *specific gravity* of the metal to be used would be equal to the weight of the casting.

2.20. Proficiency and precision casting of goldweight in Asante

Goldweights were used in everyday transaction in Asante during the Classical Period and that made Asante metal casters increase their production level leading to proficiency of metal casting in the area. The Asante became masters in the art and came out with innovations in designs and new forms. Garrard (1980) specified that, with the rise of the Asante confederation after 1700 the work of its goldsmiths achieved a greater variety of exuberance. Many influences combined to create a new art which broke away from the more restrained traditional forms of the past. During this period many Asante became goldsmiths and as they worked, perhaps side by side with craftsmen from Denkyira, Bono, Akyem, and elsewhere, goldweights reached the peak of their development. The wealth of new forms and designs seem to have been widely copied in the other Akan states. In 1868 one of the Basel missionaries, Eisenschmid, who was stationed in Akyem noted that the finest brass weights come from Asante, and he claimed that he had been given the same information in a Bono village. The term 'Asante goldweights' may perhaps be applied with some justification to the products of the Eighteenth Century, for the new artistic stimulus which has such a pervasive influence among the Akan was at its strongest in Asante. Bowdich (1819) declared that, the Dagomba people surpass the Asante in goldsmith work, though the latter may be esteemed proficient in the art. The Asante weights were very neat brass casts of almost every animal, fruit, or vegetable known in the area. The King's scales, blow pan, boxes, weights, and even the tongs which holds the cinder to light his pipe, were neatly made of the purest gold that could be manufactured.

Asante metal casters achieved some level of precision casting by the lost-wax as well as the lost-beetle process without the use of any centrifugal device.

The process of casting wax models with a mixture of finely ground charcoal enhanced smooth-surfaced castings. The addition of palm-nut fibre to the clay for embedding seems to be responsible for the moulds' high resistance to thermal shock when heated in the furnace. Ayensu (1997) stressed that, many Asante castings in both brass and gold are distinguished by their great legacy and quantity and precision of the detail they show. Some have found it difficult to believe that this was achieved by such simple techniques. It has even been suggested that Asante goldsmiths swung their moulds and molten gold around their heads at the end of a rope such that the gold was driven by centrifugal force into the tiniest details in the mould. Although modern western jewelers and technicians use centrifuges in this way to cast items when great precision is necessary, the Asante never did. Western jewelers achieved their superb results far more easily and safely, without whizzing containers of molten gold around their heads.

2.21. Metals used in lost-wax casting

Asante goldweights were mostly cast in brass with a few cast in bronze and copper. However, brass is the most common metal identified among goldweights found in most collections in Ghana. Certain properties of brass might have been considered for its preference including colour, hardness, lustre, melting temperature as well as cost. Okyere-Boateng (2003) stated that, after inspecting more than two thousand abstract and geometric weights in Peggy Appiah's collection goldweights cast in brass and bronze were identified.

Kyerematen (1964) stated that goldweights were cast in copper, brass, or bronze; whereas, Gidal (1971), Rattray (1923), and Fox (1988) posited that,

Asante goldweights were usually cast in brass and a usual name given to these weights is 'brass goldweights'.

The great majority of Asante goldweights were made of brass of varying quality. Brass, copper, lead, pewter, and other metals were imported into the Gold Coast in great quantities from the Fifteenth Century onwards. Brass of every quality circulated for hundreds of years and it became the usual metal for casting goldweights. The use of copper for late period weights seemed to be unknown, although a few recent fake ones have been cast in this metal. Goldweights of silver are rare, and small weights of lead occasionally turn up in both early and late period styles, but they are very scarce. A small group of goldweights are cast in a whitish metal and each is more likely to have been pewter or base silver than tin. (Garrard, 1980).

Phillips (2010) indicated that, the goldweights are cast in brass (an alloy of zinc and copper) and bronze (an alloy of tin and copper) using the lost-wax process. They are often referred to as miniature bronzes. This is merely a case of metallic snobbery indulged in by collectors, dealers, and auction houses since the word bronze retains a whiff of the renaissance or the antique. Aesthetically the distinction is important for with the patination acquired through time and use, brass and bronze closely resemble each other. The ratio of the alloy can vary according to period, location and fluctuations in availability. A small proportion of lead is frequently added to lower the boiling point and facilitate the pouring of the molten metal.

2.22. Acquisition of brass for goldweight casting

Pieces of brass are collected from junk sites as scrap metal and used in Asante goldweight casting. The pieces of metal are mostly scavenged by individuals from refuse and sold to scrap metal collectors. Most foundries in Asante have over the years, depended on scrap metal for their work and as a result, metal recycling has become a vocation at Suame Magazine, a suburb in Kumasi where a cluster of automobile mechanics and metal workers are located. Donkor (2015) stated that, scrap metals are rusty pieces of nuts, bolts, iron, spark plug, nails, automobile and motorcycle parts. They are fragment, piece of discarded compact material (an element, compound or alloy) that have typically hard, opaque, and shiny features of good electrical and thermal conductivity. According to McNab (2008) scrap metals have been used throughout recorded history for fine and decorative art. By the 1st Century AD, the metals in prime use today; iron, copper, tin, lead, gold and silver had a long development that had begun some 10,000 BC earlier with the working of copper. The distinction between precious metals (gold, silver and since the 18th Century – platinum) and base metals (iron, copper, tin and lead) dates from the ancient civilizations of the Middle East and prehistoric Europe. Donkor (2015) postulated that, scrap metals in Ghana can be found throughout commercial, industrial, household, and demolished company sites as well as from junkyards, landfills, fitting shops, and metalworking places. They are often sold in small amounts by scavengers and traders who deal in scraps. Unwanted metals like aluminium of beverage cans, pots and pans, brass faucets, fixtures, keys, copper communication wires, electrical wires, plumbing pipes, stainless steel sinks, appliances, steel file cabinets, grills, lawn mowers and vehicles are some common household metals that serve as sources or location of scraps.

Moyes and Vannachack (2005) argued that, these remnants derive from the full range of metal military paraphernalia, from vehicles and oil drums through to bullet casings and large unexploded aircraft bombs. The bulk of the remaining metal is ferrous scrap, but there are also smaller quantities of non-ferrous metal such as aluminium, tin and copper in the trading of scrap metals.

Brass is an alloy of copper and zinc and it is a non-ferrous metal among a wide range of non-ferrous metals recycled regularly as raw materials that could be converted by manufacturing, or processing industries into new and useful products. Engineering handbook (2004) explained that non-ferrous metals are metals that do not contain iron. Bureau of International Recycling (2008) stated that, the most commonly used non-ferrous metals are aluminium, copper, lead, zinc, nickel, titanium, cobalt, chromium and precious metals. Millions of tonnes of nonferrous scrap are recovered annually and used by smelters, refiners, ingot makers, foundries, and other manufacturers. Secondary materials are essential to the industry's survival because even new metals often require the combined use of recycled materials. Bridged Books Group (2012) argued that non-ferrous metals include a great many metals that are used mainly for metal plating or as alloying elements, such as tin, zinc, silver, and gold. Bureau of International Recycling (2006) indicated that, the aluminium skeleton left after can lids are punched out of aluminium sheets, brass punchings from a screen manufacturer, copper scrap from manufacturing, and aluminium turnings generated in machine shops - all of these scrap materials are processed by the scrap recycling industry into specification grade commodities for manufacture into new products.

Tsikata, Fenny, and Aryeetey (2008), indicated that, scrap metal recycling has been in existence since the 18th Century. The industrial revolution

which saw the emergence of large metallurgical industries was commonly regarded as the period when large scale metal recycling truly commenced. Today, with increasing public awareness and research into the many environmental implications, metals recycling is now of paramount importance due to a number of reasons including reduced contamination of air and groundwater, reduction in energy consumption during production, reduction in mining raw materials and hence saving large scale destruction of the natural environment.

These benefits as well as the economics of the scrap metal industry have established a great deal of collaboration between developed and developing countries (Tsikata, Fenny, & Aryeetey 2008, as cited in Broni-Sefa, 2012). Emery, Williams, and Griffiths (2002) posited that, Many different types and grades of metals at present fall in the category where recovery is extremely economical with high levels of metals being recovered. Recycling basically occurs on three recognised levels. First is manufacturing in which this operation is normally well organised and often occurs in-house, incorporated into the production of primary metal in many cases. Second is industrial or post-sales scrap and residues and third is household scrap collected by a local scrap merchant or local authority via a local municipal solid waste refuse collection system. Emery, Williams, and Griffiths (2002) reiterated that, to have a truly successful recycling operation, the backing and participation of the general public, industry and the government is required. The scrap metal industry gathers waste scrap metals to ultimately produce a valuable raw material end product for use by the metal manufacturing industries. If the scrap metal industry did not exist then there would be vast quantities of waste polluting our environment as well as an increased burden on primary resources.

Scrap collection is the first step in recycling of metals. Scrap metal collection is largely performed by young men in their teens and twenties. Collection usually spans from early hours of the morning to late in the afternoon lasting about eight hours daily. Scrap metal collectors may usually go as individuals or in groups of two. The method of scrap collection varies from the use of simple technological tools to the use of the hands. Scrap metals are usually collected from the land surface with the hand and stored in the houses after collection for sale later depending on the situation in the local area. Simple tools like metal detectors are often used for metals hidden underneath the land surface. The use of magnetic detector is paramount in the collection of scraps in that the collectors are able to differentiate between ferrous and non-ferrous scraps. Ferrous scraps are attracted to the magnetic detector when passed over a stockpile of scraps. (Moyes, 2005).

In Ghana, when scrap metal pieces are collected, they are sorted out by visually inspecting and identifying the real brass to handpick and remove unwanted materials. The scrap brass is washed and then weighed to facilitate efficient use. European Commission Joint Research Centre Institute for Prospective Technological Studies (2008) stated that, Sorting is carried out following identification of the scrap. Sorting of scraps is done at the point of sale to the scrap dealers. Foulke (2008) wrote that, scraps are usually sorted based on the metal types. However, the sorting of scraps is mostly done by visual inspection and not with any special devices. This requires a lot of skill and expertise especially in cases where the metals have degraded beyond recognition. In some cases, chemical processes are used in a wide range of metal scrap recycling industries as a means to separate scrap into its component metals. The chemical

processes clean the scraps prior to using physical processes and also remove contaminants such as paint from scrap material. It also extracts selected metals from a batch of scrap containing many metal types. Chemical processes may include high-temperature chlorination, electro-refining, plating, leaching, chemical separation, dissolution, reduction, or galvanising.

2.23. Some properties and applications of brasses

Traditional metal casters of Asante have over the years been using brass as the metal for goldweight casting. Brass is an alloy of copper and zinc and the composition of the two base metals could vary during alloying, hence, the name brasses used to describe various types of brass.

Wright (2008) explained that brasses are copper zinc alloys with a wide range of engineering uses. The addition of zinc to copper raises the strength and gives a range of properties, and the brasses are a very versatile range of materials. They are used for their strength, corrosion resistance, appearance and colour, ease of working, and joining. Okyere-Boateng (2003) supports the view that brass casters in Asante use mostly brass in executing their work because they see brass as a common alloy compared to others, and as well its melting temperature is below the capacity of the local firing furnace, and it is easy to work with. Additionally, its brilliant and golden colour explains its preference as a replacement of gold since gold is very expensive to come by.

2.24. General properties of brass

Brass is a metal which is easy to work with as a result of its workable mechanical properties including resistance to stresses without suffering damage. Army Institute for Professional Development (1985) discussed that, the strength and plasticity are considered the two most important properties of metals and alloys. These are tensile strength, shear strength, elasticity, ductility, malleability, plasticity, toughness, brittleness, corrosive resistance, abrasion resistance, fatigue, corrosion fatigue, hardness, and machinability. Socorro (2014) illustrated some of the general properties of scrap metals including brass as; tenacity (brass is tenacious), ductility (it is ductile), malleability (it is malleable), hardness (it is relatively hard), density (it is compact with a high mass per unit volume), electrical and thermal conductivity (it is a good conductor of electricity and heat), and metallic shine (it has a shiny colour before oxidation).

There are many brasses with properties tailored for specific applications by the level of addition of zinc. The single phase alpha brasses containing up to 37 % zinc are very ductile and easy to cold work, weld, and braze, whereas the dual phase alpha-beta brasses are usually hot worked. Brasses of different compositions have different names; gilding metal (90 % copper, 10 % zinc), gilding metal (85 % copper, 15 % zinc), and brass (70 % copper, 30 % zinc). These brasses are often used for their appearance, and as the zinc content increases, the colour changes. (Wright, 2008).

2.25. Summary of discussions

This summary of discussions on review of related literature highlights the major themes in the review.

Proverbs as explained by the various authorities deal with ‘sayings’, ‘poetry’, and ‘expressions’ in verbal communication positioning a proverb as an oral culture. Proverbs are although, written for readers’ attention; it is usually during conversations that a proverb is commonly used and interpreted for clear understanding of a particular situation. Proverbs are; therefore, a valuable form of verbal communication in the Ghanaian society.

Proverbs are classified to be wise sayings; however, another form of wise sayings is known as idioms also known to be part of speech. To avoid the use of raw language idioms are used such that only a particular class of the audience will be communicated to at the time of idiomatic expression.

Composition of a proverb is a creative way of coming out with a wise saying by observing events, natural and unnatural objects and relating them to the normal human life as advice, warning, or encouragement. Proverb composers are good informants who are valuable repositories of the wisdom of Ghana’s forefathers.

Proverbs are although, used mainly in Akan oral literature; they are also applied in other areas as motifs in textiles, pendants in jewelry, and decorative designs in the construction industry.

Contemporary period is a subset of modern historic era which is characterised by current activities including ICT. Contemporary proverbs are composed with reference to contemporary items, objects or recent themes as the

main characters and as such could be dated. Most Ghanaian proverbs are ancient, however; they were created or coined newly at certain points in time by people who are now attributed to as forefathers. Most of the items used in contemporary proverbs have no known local names

Goldweights are miniature models of major nouns in Ghanaian proverbs, themes of folk stories, and major events, usually made of brass, used as a measuring system by the Akan people for weighing gold dust and nuggets; their main currency until replaced by European currencies. Goldweights were based on particular known measurements that ensured acceptable medium for exchange that came to replace the barter system.

The goldweight of Akan origin was developed from Islamic weights from North Africa into figurative weights both in human and animal forms; however, only men were encouraged to own them until its use was banned between 1889 and 1896.

The Asante technique of lost-wax (*cire perdue*) metal casting differs from the common method. The Asante technique involves the embedding of both the mould and the crucible containing the metal to be used in casting whereas the other method involves separate mould and separate crucible. Bronze, copper, and brass were previously used in casting; however, brass appears to be common in Ghana and has been the preferred choice of Asante metal casters. Asante metal casters developed the casting method by achieving some level of precision casting even in the Eighteenth Century.

Brass is mostly used in the casting of goldweights. It is obtained from the collection of scrap metal pieces from individuals or group of persons whose job is

to scavenge for the alloy from dump sites and junk yards. It is a beautiful metal with a shiny yellowish colour, and easy to work. It has workable mechanical properties including resistance to stresses without suffering damage. They include strength, shear strength, elasticity, ductility, malleability, plasticity, toughness, brittleness, corrosive resistance, abrasion resistance, fatigue, corrosion fatigue, harness, and machinability. Brass, however, tarnishes when oxidised and would need polishing to regain its beautiful shiny colour.



CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter of the thesis deals with the methods and procedures employed in gathering data for the research. It provides a clear description of the various sections and explains how data were collected to give meaning to reinvigoration of Asante *cire-perdue* technique in casting goldweights for contemporary Asante proverbs. Research involves adoption of a methodology that gives it credibility and as such, data are gathered from different sources and analysed with various tools that are recognised by academic and research conventions. Denkyira and Agbeke (1999) noted that methodology of a dissertation is developed to tell the reader what was done to solve the problem, therefore; care must be taken to meticulously report that the criterion of replicability is satisfied ensuring that the report is sequentially done to allow any investigator to follow the procedure to reproduce the research, reanalyse the data and arrive at unambiguous conclusions as to the adequacy of the methods and data collection.

Both primary and secondary data were used in the study. Primary data were collected from 30 research participants in Asante whereas secondary data were based on information gathered from books, newspapers, journals, periodicals, theses and project reports, and internet sources.

The sections under review include introduction, research design, artistic research, importance of art-based research, qualitative research, justification for employing qualitative research, characteristics for the population of the study, sample and sampling technique, criteria for selection of population, selection of

sample, justification of the sample selected, training of Field Assistants (FAs), data collection instruments, interview guide design, identification of contemporary items and some events, a pilot study with two proverb creators, interview guide preparation, ethical consideration, conduct of interviews, creation of contemporary proverbs, Focus Group Discussions (FGD) and confirmation of the created contemporary proverbs, anecdotal records, collation of data, materials and tools, preparation of the wax models and mould, the *cire-perdue* metal casting process, and summary of discussions. These sections were developed and treated to ensure obtainment of adequate and reliable information from the investigation through the interviews for enhancement of good quality of the research.

3.2. Geographical location of the study area.

3.2.1. *Background information on Asante.*

The study area comprises seven (7) communities in Asante namely; Ayeduase, Appiadu, Bantama, Deduako, Dwease, Kwamo, and Krofofrom. Each of the seven communities is headed by a traditional chief and a council of elders who play a greater role in ensuring that all members of the communities observe and adhere to traditional laws and order.

The choice for selecting the seven communities in Asante was based on the fact that, five popular proverb creators come from five of the communities (Appiadu, Ayeduase, Dwease, Deduako & Kwamo) whereas goldweight casting is practised in the other two communities namely; Kurofofrom and Bantama.



Fig. 2 a: Position of Asante (including Ahafo) in Ghana.
Source: Okyere-Boateng (2003).

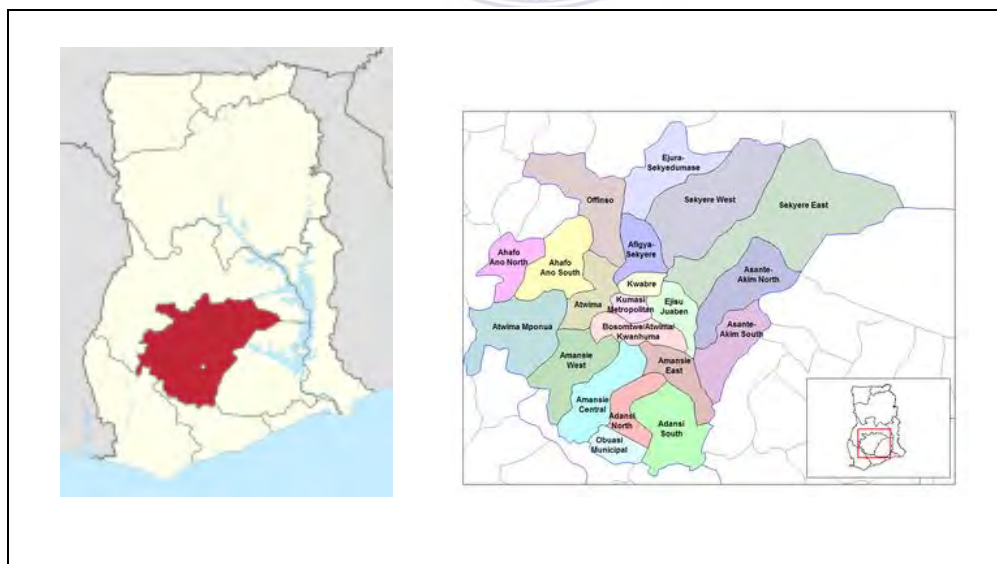


Fig. 2 b: The position of Asante in Ghana.
Source: Wikipedia (2016).

It is, however, important for one to know why there is the word ‘Asante’, and ‘Ashanti’, both having the same meaning. The former is the name and the language of an Akan ethnic group in Ghana, however, the name was corrupted into ‘Ashanti’ by the Gold Coast’s colonialist (British), and it (Ashanti) has been accepted by the society as an English word. The Merriam Webster’s collegiate dictionary 11th Edition explains that Asante also known as Ashanti is the name of a group of people of southern Ghana and the dialect of Akan spoken by the Ashanti people.

The description of Asante as a southern Ghana ethnic group, however, does not provide an exact location of the area; this is due to the fact that Ghana has usually been divided into north and south of which Asante is counted among the southern ethnic groups. Asante is one of the large ethnic groups located in the central part of Ghana, specifically, the whole of the Ashanti Region and the Ahafo part of the Brong-Ahafo Region (Figure 2) as well as Asante communities in isolated locations in the Eastern and Volta regions of Ghana. Appiah and Gates (1999) argued that, Asante was a dominant ethnic group of a powerful Nineteenth Century empire and now one of Ghana’s leading ethnic groups with more than two million men has concentrated in south-central Ghana.

The political, military, and spiritual foundations of the Asante date to the first Asante King Osei Tutu I. He forged the Asante Union by bringing together several subgroups from about 1670 to the late 1690s. He also built a capital town, Kumasi; created his rule; and began celebrating the yam festival as a symbol of national unity. (Appiah & Gates, 1999). Osei (2000) indicated that, The Asante nation, known as *Asanteman*, is a homogenous society comprising a number of states all serving one king known as the *Asantehene*. Each of the individual states

has a paramount chief and all the paramount chiefs owe allegiance to the *Asantehene*. The individual sates forming *Asanteman* have the same culture and speak the same language. The sates united in the Seventeenth Century to form the Asante Nation.

The Ashanti region is bounded by five (5) other regions of Ghana namely; Brong Ahafo region in the north, Western region in the west, Central region in the south-west, Eastern region in the south, and Volta region in the north-east.

Chieftaincy in Asante is much respected in Ghana, and the Asante Kingdom which is known as Asanteman constitutes more than fifty-five (55) traditional areas headed by Paramount chiefs. (Okyere-Boateng, 2003).

In the Asante set up, the Golden Stool is the highest authority, which unites the people. It is believed that, the soul of the nation is in the Golden Stool. The *Asantehene* who is the occupant of the Golden Stool, therefore, is accorded the highest honour and respect. He is the King of the Asante Kingdom and occupies the highest authority.

Asante is economically viable due to the existence of minerals such as gold, and cash crops like cocoa and oil palm. The natives are primarily farmers cultivating cocoa for export and yams, plantains, cassava and other produce for local consumption. Its capital town, Kumasi is a nodal centre and a metropolis linked to all parts of Ghana with an airport, a network of roads, and a railway line, offering a lot of potential to promote the development of marketing activities and diffusion of information and innovation. Asante became famous for gold trade, brass craftsmanship, wood carving, and woven textiles known as *kente*. Asante

engaged in a lot of wars with the British who sought to expand their control of power in Asante but after series of defeats the Asante established a confederacy which was recognised by the British as a political organisation in 1935.

Asante lies within the semi-deciduous forest belt and it is endowed with beautiful flora and fauna, the abundance of various species of butterfly in the *Bobiri* Forest Reserve serves as a tourist attraction.

Some other places that have been made attractive to tourists include: The Kumasi Zoo, which is situated in the centre of the metropolis; Lake Bosomtwe, found in the south-eastern part of the region; the Offin and Owabi rivers which have been dammed to form reservoirs to serve as source of water supply to the people in most parts of the region; the Centre for National Culture (CNC) situated at Bantama a suburb of Kumasi where groups of artisans practising indigenous art including brass casting are located; the *Suame Magazine*, a cluster of mechanic and metal workshops established by individuals to repair motor-engines, fabricate, cast, and forge metal products to feed the local markets; the *Kente* weaving village at Bonwire designated as a craft centre by the Asante Regional Office of the Ghana Tourism Authority; the Manhyia Palace and home of Otumfuo Osei Tutu II, has a museum which exhibits artefacts made of gold, effigies of past and present Kings and Queen-mothers, and also has an Art Gallery where crafts and books on Asante Culture are sold; other museums are the Yaa Asantewaa Museum at Ejisu, Prempeh II Museum at the Centre for National Culture, and the Military Museum which displays artefacts used by the military.

Asante Traditional Chiefs' palaces, are also places of tourism attraction, traditional rites are performed every fortieth day which falls on a Sunday to

commemorate the *Akwasiadae* Festival. These traditional rites are also performed in the shrines by priests and traditional religious leaders to seek communion with the gods and ancestors of the land. As a sign of unity, the Asante Kotoko Football Club was formed in 1935 to fortify the state of unity in the Asante Kingdom, and as a result, the King of Asante is the Life Patron of the Asante Kotoko Football Club.

The Asante Kingdom known as the Asanteman Council has the following membership;

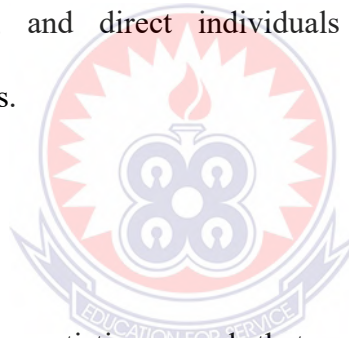
- a. The *Asantehene* as President.
- b. All Paramount Chiefs of the Asante Kingdom and four senior divisional chiefs from the Kumasi Traditional Council as members.

3.3. Research design

The study used qualitative research approach as the methodology for conducting the study. It employed descriptive and the explorative research design to collect information for the study. Bryman (2004) explained research design as providing a framework for the collection and analysis of data. Agyedu, Donkor, and Obeng (2013) stated that descriptive research seeks to gather information to provide answers to the questions of who, what, when, where, and how associated with a particular research problem so that a description of what is going on can be made. In qualitative descriptive research, methods including open-ended questionnaire, observation, and interview are used for gathering information which provide useful and depth answers to the research questions of decision-makers and information seekers (Denkyira and Agbeke, 1999). As a result, the descriptive

research was appropriate for the research as it intended to obtain independent and authentic information from the respondents.

Exploratory study aims at gaining insights and familiarity into a research problem that has few or no earlier studies to refer to. This kind of study often attempts to establish certain facts relating to a phenomenon, and seeks to establish preliminary information about an object (Agyedu, Donkor, & Obeng, 2013; Obeng, 2013). The study on contemporary Asante proverbs and contemporary goldweights is explorative and, therefore; needed a meticulous study from the survey to provide reliable information for future research. The study was expected to create statements that would be accepted as words containing wisdom that teach, warn, advice, and direct individuals in the entire community as contemporary proverbs.



3.4. Artistic research

The study is an artistic research that used an art-based research method. Artistic research as an aspect of visual research that uses a systematic visual process; the making of artistic expressions in all of the different forms of the arts, as a primary way of understanding and examining experience by both researchers and the people who are involved in the studies (McNiff, 2004). Art-based research makes use of element of design, these elements (which vary according to art form) are important for their usefulness in recasting the contents of experience into forms with the potential for challenging beliefs and values (Barone, 2001, cited in Amate, 2011).

3.5. Importance of Art-Based research method to the study.

The researcher considered and adopted the Art-based concept to enhance observation of the illustrations, and easy identification of objects and ideas in them by participants who could not read or understand the English language. The contemporary proverbs were created from interpretation of the illustrations so visualising the words into drawings and photographs enhanced easy identification of objects and their functions as well as recollection of contemporary events. Amate (2001, citing Eisner, 1995; & Williams & Bendelow, 1998) asserted that, four factors make Art-based research method important to Artistic research.

1. Flexibility: By its very nature, artistic self-expression taps into and reveals aspects of the self and puts the researcher in closer touch with how he really feels, looks, and acts. Leading potentially to a deepening of the self-study, such acts as drawings by the researcher.
2. Capturing the ineffable (the hard to put into words): Aesthetics is natural to our need to make sense of experience, and that visual forms afford “all at oneness” that reveals what would be hard to grasp through language and numbers alone.
3. Making the ordinary seem extra ordinary: These art forms could be used to create many symbols useful for different activities.
4. More accessible than most forms of academic discourse: Artistic forms of representations provide a refreshing and necessary challenge to prevailing modes of academic discussion. The use of widely-shared cultural codes and popular images make some visual expressions far more accessible than the usual academic language.

The researcher, therefore; cast the contemporary goldweights in brass based on the contemporary proverbs and events created from the images that visualised the words in the proverbs for interpretation.

3.6. Qualitative research.

Obeng (2013) indicated that researchers using qualitative approach view the phenomena under investigation to be as more personal and softer. They use methods such as personal accounts, unstructured interviews, and participant observation to gain an understanding of the underlying reasons and motivations for people's attitudes, preferences or behaviours. From this approach the emphasis is on generating hypotheses from the data collected other than testing a hypothesis. This is affirmed by Wiersma and Jurs (2009) that, qualitative research design is a plan or strategy for conducting a research. As a plan, research design deals with matters such as selecting participants for the research and preparing for data collection-activities that comprise the research process. Research design tends to be specific to the type of research.

3.7. Justification for employing qualitative research approach.

Using qualitative approach in conducting research, although; has some limitations. The study has, however; identified this approach as the most suitable means of conducting this research which addresses a phenomenon dealing with human perceptions. This method of survey would enhance direct interaction to study participants' attitudes, concerns, aspirations, and lifestyles in relationship with their understanding of the values of the Asante proverbial goldweights, and

how these values contribute to the uniqueness of lifestyle of the people. The study in addition employs statistical methods in presenting results of the survey and analyses to enhance simplification of the presentation.

3.8. Population for the study.

The total population for the study comprised all proverb creators, traditional rulers, metal casters, educators in Art and Cultural studies, and tertiary level students in Art and Cultural studies in Asante. Both males and females between the age range of 20 and 70 years were involved, however those above 70 years but are still active were consulted. This age range was preferred because it was gathered that the minimum age of a metal caster with about four years' experience, and who has completed the Junior High School (JHS) before apprenticeship of about three years was not less than 22 years. In the same vein only students above the age of 20 years in tertiary level educational institutions and have spent not less than two years were selected. The maximum age of 70 years and above 70 but active was to ensure that none of the elderly persons selected could possibly be suffering from slow retentive memory.

3.9. Characteristics for the population of the study.

The concept of population is basic to descriptive and analytical research. Chambers 21st Century Dictionary explains population as the number of people living in a particular area, or a group that consists of all the possible quantities or values relevant to a statistical study from which representative samples are taken in order to determine the characteristics of the whole.

Selection of population for the study was based on 30 research participants from Asante. This number was appropriate because the study sought to gather different valuable information from different thought process among respondents to enhance;

- a. Seeking of more information from the participants' own ideas and individual opinions on creation of contemporary proverbs also for further research.
- b. Assessment of the respondents' true feelings on creation of contemporary proverbs and Asante technique of *cire-perdue* casting.
- c. Prompting many participants to respond with sentences, stories, and giving deeper and new insights about creation of contemporary proverbs and goldweight casting.
- d. Many respondents answering creatively to find more answers to what the study anticipated and to learn more from respondents.
- e. Provision of adequate information on production of goldweights that represent contemporary proverbs for collaborative work (Focus Group Discussion).

The population is homogenous and consists of all proverb creators, *cire-perdue* metal casters, traditional elders, and educators in art and cultural studies in Asante, however, only those in identified communities in the area were selected for the field survey. Ghanaian proverbs are identified in many Ghanaian languages including Twi, Fanti, Katsina, Dagbani, Ewe and Ga. The accessible population was identified in seven communities including chiefs' palaces in Asante; these were Appiadu, Ayeduase, Bantama, Deduako, Dwease, Kurofofrom, and Kwamo.

3.10. Sample and sampling techniques.

Purposive sampling technique was employed based on selection of participants and the snowball sampling technique was also considered in course of the interviews to enhance convenience. In all, 30 respondents were sampled for the study. The sampled population was divided into five categories comprising: A - 2 proverb creators; B – 12 chiefs and elders; C - 2 metal casters, D - 4 educators in art and cultural studies; E - 10 students, as shown in Table 1. Denkyirah and Agbeke (1999) explain purposive sampling as handpicking the cases to be included in the sample on the basis of the judgement of their typicality. What the researcher will, therefore be doing is to build up a sample that is satisfactory to his or her specific needs. They posit that, in the case of snowball sampling, the researcher needs to identify a small number of individuals who have the required characteristics to be used as informants to identify others who qualify for inclusion; they in addition will also identify others for inclusion.

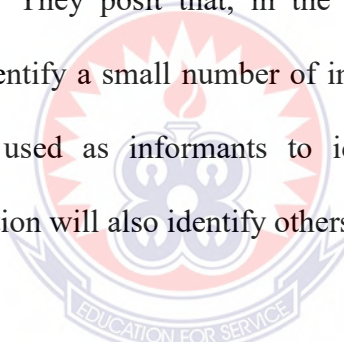


Table 1. Criteria for selection of population.

Category A	Proverb creators with the minimum age of 30 years.
Category B	Traditional rulers and elders with the minimum age of 35 years were selected.
Category C	Metal casters with more than five years' working experience and above the age of 23 years.
Category D	Educators in Art and Cultural Studies with the minimum qualification of Diploma and above the age of 30 years.
Category E	Postgraduate, and third and final year undergraduate students in Art were selected.

Source: Field survey, 2016.

Table 2. Selection of sample.

Status	Number in sample	Percentage of sample
Category A	2	6.67
Category B	12	40.0
Category C	2	6.67
Category D	4	13.33
Category E	10	33.33
Total	30	100

Source: Field survey, 2016.

3.11. Justification of sample selected.

The selection of 30 participants for the interview was appropriate since the total response of 60 % from each category would provide enough information for analysis. Table 2 provides detailed information on selected sample for the study in which Category A represented 6.67 %, Category B – 40 %, Category C – 6.67 %, Category D – 13.33 %, and Category E – 33.33 %.

3.12. Training of Field Assistants for data collection.

The researcher engaged the service of two Field Assistants (FAs) and provided them with training in Asante Twi language writing skill. This helped in communicating details in the interview guide to identified proverb creators who could neither read nor write. This was to ensure that in the absence of researcher conducting the interviews, the respondents could go ahead while the FAs help in

identifying and explaining functions of the selected contemporary items, as well as contemporary themes that were to be used for creation of the proverbs.

During the training, a mentorship model developed by Green and Baxen (2002) was employed. According to them, mentorship involves a process whereby "inexperienced researchers work alongside more experienced researchers". Researchers with good academic background at a high level of responsibility work together with research assistants with less academic background and with less responsibility. Researchers would go to the field with fieldworkers and would engage with research participants, work together and produce joint stuff with some shared responsibility.

The two Field Assistants were from Asante and were able to communicate effectively in the Asante language and could as well, read and write. The detailed explanation of the topic and the objectives were explained by the researcher to the research assistants, in both Twi and English Languages. Each of the questions was explained to them as well as the uses and functions of the drawing objects in the SDDIG.

They were tasked to perform the following:

- a. To explain to the respondents that their views were sought solely for research purpose and that, their anonymity was assured.
- b. To be very humble and patient in collecting the views of respondents.
- c. To feel free in asking them any question that would enhance achieving the objectives of the study.
- d. To take time in writing while creation of the proverb is being done.
- e. To seek the consent of respondents for either audio or video recording.

- f. To provide 'refreshment' if participants request for. (Provision had been made by researcher, and as well, pens and A 4 bond sheets were made available to the Field Assistants for use).

3.13. Data collection instruments.

Instruments for interviews were Self Designed Drawing Interview Guide (SDDIG) for the 2 Proverb Creators while an open ended interview guide was designed for the other 28 participants engaged in interviews, Focus Group Discussion (FGD), observations, field note taking, and photography. Conduct of the interview with proverb creators, traditional chiefs and elders, traditional metal casters, and experts in the Asante language within the selected communities were made. Interviews were conducted by researcher and FAs through administration of the interview guide in a face to face interaction.

Observation was a key factor in the field survey as researcher closely observed respondents through hearing and sight-seeing to determine the kind of conclusions to draw. Amate (2011) stated that, observation in philosophical terms is the process of filtering sensory information through the thought process. Input is received by hearing, sight and smell, taste or touch and then analysed through rational or irrational thought. With the passage of time, impressions stored in the consciousness about many related observations, together with the resulting relationships and consequences, permit the individual to build or construct about the moral implications of behaviour. Observation involves drawing of conclusions, as well as building personal views about how to handle similar situations in the future other than simply registering that something has happened.

3.14. Interview guide design.

The SDDIG and unstructured interview guide were designed as fact-gathering devices in which respondents would respond to specific drawing activities and written statements. Obeng (2013) explained the interview guide as a set of questions that has been specifically formulated as a means of collecting information and surveying opinions on a specified subject or theme based on interaction.

The first set of unstructured questions was designed to allow respondents to freely provide their own discretionary information. It was a set of questions to obtain reliable information for use in the creation of the contemporary proverbs as well as the casting of the goldweights. Obeng (2013) said that unstructured questions have although, some disadvantages, they permit an unlimited number of possible answers, creativity, self-expression, and richness of detail.

The second set of questions was the SDDIG; a twenty-page document with drawings and photographs of all the contemporary items, and themes designed for the field survey. Because the respondents were not familiar with the contemporary objects identified for the study, the drawings were made to assist in easy identification of the objects, their functions and uses, as well as to depict the main activities in the selected events for use in creation of the proverbs. The photographs and drawings of these items and themes were picked from secondary sources and Microsoft Word applied to create outlines for use as information gathering drawings. Respondents were asked to identify and use each drawing or photograph as well as its function, or meaning in the case of photographs depicting activities for the creation of the proverbs. The drawings were chosen to be the best form of identifying contemporary objects and their functions. Selected drawings

designed by researcher are shown in Tables 20 and 21. The two sets of interview guide (Appendices A and B) based on the objectives and research questions of the study were, therefore, administered to seek relevant information from the selected population, and respondents were allowed to answer only questions applicable to them.

The SDDIG had 186 drawings and photographs of contemporary objects and themes. The section one of this set requested for personal data of respondents including; sex, age, occupation, and experience in proverb creation.

Section two of the SDDIG asked respondents to identify, observe the physical properties, and understand the functions of each of the 186 objects and themes such that each item could be used to create a proverb or even more. A space was provided for the composition to be either written in English language or Asante *Twi* language.

Section one of the unstructured questions requested for personal data of respondents with indication of sex, age, occupation, name of institution, status, and educational level. The rest of the questions were set from the research questions and objectives of the study and were expected to provide reliable answers to the research questions.

3.15. Audio-visual formats

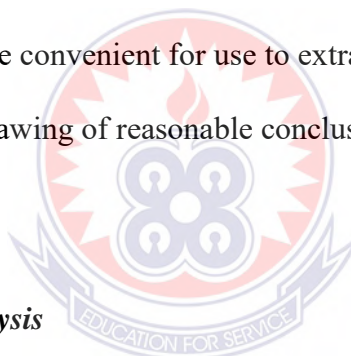
The study identified the relevance of using audio-visual formats in the data collection. Benard (2006) stated that the activity of using film in ethnographic data collection has a long history. MacDoughall (1998, 2006 as cited in Dorgbadzi

2016) postulated that there are various uses of film in data collection and these include photos and movies which are effective in researching social aesthetics.

The two proverb composers had initially agreed to allow video recording during the collection of data but they later decided to participate off video recording with personal reasons and rather allowed the taking of ordinary photographs. One of the Field Assistants, however, managed to record some portions of the FGD.

3.16. Method of data analysis

The method identified for data analysis for the study is thematic data analysis. This would be convenient for use to extract information based on themes of the study leading to drawing of reasonable conclusions.



3.16.1. *Thematic analysis*

The study which is also explorative and employing qualitative research approach requires employment of descriptive data analysis. Burns and Groove (1999) identified three phases of qualitative data analysis as; description, analysis, and interpretation. The data gathered would be collated and put into themes for thematic analysis in order to enhance easy interpretation.

3.17. Identification of contemporary items and major events

Tables 3 to 19 indicate the number of identified contemporary items and events for the study. These items were identified through observation in homes of family members and colleagues, offices, hospitals, departmental shops, construction sites, automobile workshops, educational institutions, newspapers, journals, online, books, and memory. These items and events were presented under 17 thematic areas as follows; domestic items, electrical / electronic items and accessories, kitchenware, hospital items, construction equipment, travelling items, body adornments and protective items, communication gadgets, agricultural equipment and implements, educational items, recreational items, sports equipment, office equipment, musical instruments, edible items, other items, and major events.



Table 3: Domestic items.

S/N	Item	S/N	Item
1	Clip	2	Box iron
3	Match box	4	Toilet roll
5	Candle	6	Plastic chair
7	Mosquito spray	8	Suitcase
9	Wardrobe	10	Ironing board
11	Toothbrush		

Source: Field study, 2016.

Table 4: Electrical / electronic and communication gadgets and accessories

S/N	Item	S/N	Item
12	Decoder	13	Laptop computer
14	Computer keyboard	15	Compute mouse
16	Television	17	Radio
18	Microphone	19	Megaphone
20	Light bulb	21	Electric iron
22	Fluorescent tube	23	Desktop computer
24	Refrigerator	25	Electric stove
26	Dry cell battery	27	Audio cassette
28	Compact disc	29	Diskette
30	Water heater	31	Electric fan
32	Washing machine	33	Electric pre-paid meter
34	Antenna	35	Traffic lights
36	Flash drive	37	Sim card
38	Remote control	39	Modem
40	Video cassette	41	DVD player
42	Solar panel	43	Portable hair dryer
44	Hair dryer	45	Electric hair cutter
46	Score board	47	Satellite dish
48	Extension board	49	Hand drill
50	Wall clock (pendulum)	51	Table clock
52	Headphone	53	Voltage stabiliser
54	Air conditioner	55	Electric voltage transformer
56	Cell phone	57	Land line telephone

Source: Field study, 2016.

Table 5: Kitchenware

S/N	Item	S/N	Item
58	Feeding bottle	59	Food blender
60	Kettle	61	Microwave oven
62	Disposable food bowl	63	Spoon
64	Vacuum flask	65	Disposable cup
66	Opener	67	Tin cutter
68	Breadknife	69	Fork

Source: Field study, 2016.

Table 6: Hospital items

S/N	Item	S/N	Item
70	Syringe	71	Pair of scissors
72	Digital weighing scale	73	Wheel chair
74	Thermometer	75	Sphygmomanometer
76	Stethoscope	77	Microscope
78	Ambulance		

Source: Field study, 2016.

Table 7: Construction equipment, materials, and tools

S/N	Item	S/N	Item
79	Helmet	80	Screw driver
81	Water tap	82	Caterpillar
83	Road roller	84	Water closet
85	Louvre blades	86	Pair of pliers
87	Spanner	88	Shovel
89	Wash-hand basin	90	Forklift

Source: Field study, 2016.

Table 8: Travelling equipment, items and accessories

S/N	Item	S/N	Item
91	Navigators' compass	92	Car
93	Aeroplane	94	Bicycle
95	Automobile battery	96	Articulated truck
97	Train	98	Ship
99	Vehicle tyre	100	Lorry
101	Scooter / moped	102	Motor bike

Source: Field study, 2016.

Table 9: Body adornments and protective items

S/N	Item	S/N	Item
103	Spectacles	104	Wedding ring
105	Shoes	106	Canvass
107	Gas mask	108	Wrist watch

Source: Field study, 2016.

Table 10: Agricultural equipment and implements

S/N	Item	S/N	Item
109	Wellington boots	110	Tractor
111	Pruning shears	112	Chainsaw
113	Rake		

Source: Field study, 2016.

Table 11: Educational items

S/N	Item	S/N	Item
114	Pen	115	Pencil
116	Book	117	Eraser
118	Calculator	119	Slide rule
120	Seminar bag		

Source: Field study, 2016.

Table 12: Recreational items

S/N	Item	S/N	Item
121	Balloon	122	Unicycle
123	Cigarette	124	Bottle of beer
125	Tricycle	126	Casino slot machine

Source: Field study, 2016.

Table 13: Sports equipment / items

S/N	Item	S/N	Item
127	Football	128	Trophy
129	World cup	130	Hockey sticks
131	Table tennis bat and ball	132	Racket
133	Lawn tennis ball	134	Boxing gloves

Source: Field study, 2016

Table 14: Office equipment

S/N	Item	S/N	Item
135	Swivel chair	136	Office stamp
137	Stapling machine	138	Paper perforator
139	Office printer		

Source: Field study, 2016.

Table 15: Musical instruments

S/N	Item	S/N	Item
140	Saxophone	141	Piano
142	Electric organ		

Source: Field study, 2016.

Table 16: Edible items

S/N	Item	S/N	Item
143	Bottled water	144	Sachet water
145	Tinned fish	146	Coca cola

Source: Field study, 2016.

Table 17: Other items 1.

S/N	Item	S/N	Item
147	Padlock	148	Fuel dispenser
149	ATM	150	Lawn mower
151	Camera	152	Bill board
153	Wallet	154	Fire extinguisher
155	Babies' car seat	156	Stroller

Source: Field study, 2016.

Table 18: Other items 2.

S/N	Item	S/N	Item
157	Rain gauge	158	Binoculars
159	Water dispenser	160	Sewing machine
161	Sign post	162	Score board
163	Money counting machine	164	Cash register
165	Waste bin	166	Gas cylinder
167	Robot	168	Key holder
169	Disposable shaving razor	170	Laptop bag







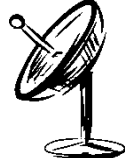



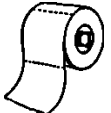




Source: Field study, 2016.

Table 19: Major contemporary events

S/N	Event	S/N	Event
171	Independence era	172	Military dictatorship
173	UNIGOV	174	Operation Feed Yourself
175	Returnee from Nigeria	176	HIV / AIDS
177	Ebola scare	178	2001 Stadium disaster
179	Cocoa evacuation exercise	180	Female soccer
181	Bumping dance	182	<i>Azonto</i> dance
183	NHIS	184	School feeding programme
185	Zoomlion operations	186	Democracy











Source: Field study, 2016.

Table 20: Selected drawings 1 designed for the survey.

Domestic items	Electrical items/gadgets	Kitchenware	Construction equipment	Educational items
 Ironing board	 Adaptor	 Kettle	 Caterpillar	 Calculator
 Candle	 Satellite dish	 Fork	 Road roller	 Pencil
 Toilet roll	 Electric iron	 Food blender	 Louvre blades	 Book

Source: Field study, 2016

Table 21: Selected drawings 2 designed for the survey.

Sports items	Office equipment	Agricultural equipment/items	Travelling equipment	Other items
 Boxing gloves	 Perforator	 Tractor	 Articulated truck	 Binoculars
 Football	 Office printer	 Wellington boots	 Train	 Robot

Source: Field study, 2016.

3.18. A pilot study with two proverb composers.

A pilot study was carried out with two proverb composers to ascertain the style of interview guide they would prefer as some of the identified composers did

not have formal education, and would not be able to understand certain English nouns that would be named. The researcher proposed drawings of selected contemporary objects, and events, arranged in classes or categories. The proposed categories would for example be arranged in the order of domestic appliances, sports equipment, communication equipment and accessories, and motor vehicle components. The respondents in the pilot study on the other hand preferred a mix-up of objects in non-specially classified groups with a reason that proverb creation does not follow a particular format; however, the researcher preferred the former for easy reference. The two proverb composers suggested that the composed proverbs be screened by some identified elders who are traditionally trained in linguistics. This, therefore; demanded consideration of snowball sampling.

3.19. Preparation of the interview guide.

The two sets of interview guide were prepared. The first was a set of interview guide used for participants in Categories B, C, D and E. (Appendix A), while the second was a set for SDDIG based on the information in Tables 3 to 19 which were used to interview the two proverb creators. (Appendix B).

The phase one of the interview guides dealt with bio-data of participants, and asked questions based on the objectives of the study. These included:

1. Participants' understanding of a contemporary proverb.
2. How proverb creators could be identified in Asante.
3. The possibility of using the identified proverb creators to compose contemporary proverbs.

4. Description of the general process of *cire-perdue* metal casting.
5. How the Asante technique of *cire-perdue* casting process is carried out in goldweight production.
6. Relevance of the use of the Asante technique of the *cire-perdue* process.
7. Relevance of the goldweights production to the created contemporary proverbs.
8. Impacts that the relevance of the contemporary goldweights have on the contemporary proverbs.

The second phase of the interview guide was a set of drawings of 186 contemporary items and events. The two proverb composers were made to identify each of the drawing, looked at its function or functions, and used the particular drawing to create one or more meaningful proverbs.

3.20. Focus Group Discussion and confirmation of the created proverbs.

A focus group discussion is a panel of people led by a trained moderator, who meet for ninety minutes to two hours. The facilitator or moderator uses group dynamics principles to focus or guide the group in an exchange of ideas, feelings, and experiences. Too small or too large a group results in less effective participation. The facilitator introduces the topic and encourages the group to discuss it among themselves. Following a topical guide, the moderator will steer the discussion to ensure that all the relevant information desired by the client is considered by the group. The facilitator also keeps gregarious individuals from dominating the conversation, ensuring that each person enters the discussion. (Cooper, & Schindler, 2001).

During a previous research four types of focus group were identified including; Face-to face focus group, telephone focus group, online focus group, and video conferencing. This research sought to use face-to face focus group discussion since all the selected participants were available within the study area and the moderator had total control over all the members. According to Cooper, and Schindler (2001) the primary advantage of face-to-face focus group discussion as an exploratory research tool is its ability to quickly and inexpensively grasp the core issues of a topic. The researcher is provided with a chance to observe reactions to their questions in an open-ended group setting. Participants respond in their own words, rather than being force-fit into a formalised method; because they can freely react to each other's responses, the unexpected often occurs.

The selected chiefs and traditional elders were engaged in the FGD to listen carefully and analyse the content to enable them either accept or reject a particular proverb for its credibility and wisdom, or lack of credibility.

3.21. Ethical considerations.

Individual consent was sought from each of the participants before the start of the data collection process. They were encouraged to fully participate as the rationale of the study was explained to them by giving assurance of anonymity as well as confidentiality. This was done to help build their confidence and to remove all forms of fear, uncertainties, mistrust, suspicion, and intimidation; and to enhance their free expression of opinions, ideas, and feelings.

3.22. Theoretical framework, interviews, and creation of contemporary proverbs.

Some theories on creation of contemporary proverbs were reviewed including; constructivist theory, metaphor theory, figurative theory (simile), and the theory of mixed languages, however, the constructivist theory was considered for the provision of theoretical framework of the study.

This theory of constructivism that supported the conduction of interviews and creation of contemporary proverbs was driven by the objectives, and putting theory and creation of contemporary proverbs at an equal rate formed the basis for this study. The theory of focuses on better understanding and interpreting the phenomena being studied through direct in-depth contact and relationship with the research subjects involved (Rubing & Babbie, 1997). The constructivist theory suggests that, through processes of accommodation and assimilation, individuals construct new knowledge from their experiences (Rubbing & Babbie, 1997). This theory related well with the thirty (30) selected research participants in the study area to help obtain reliable information by interviewing them in the Asante language. This was done together with the two Field Assistants by interviewing 28 participants from categories B, C, D and E, and creation of the proverbs with the 2 proverb creators from category A, as well as the Focus Group Discussion.

The first phase of the interview sought information from 28 participants from 4 categories, and this was carried out before composition of the contemporary proverbs with the remaining 2 participants from category A who were the proverb creators.

A key informant interview was carried out using the SDDIG as a preferred effective and flexible method during the second phase of the survey.

Healey (1998) noted that, an interview guide is an effective tool to probe for more information about the topic and give the respondents freedom of self-expression and more creativity in providing detailed answers. The survey was initially intended to apply the obtrusive method, however; because of the engagement of trained Field Assistants, the unobtrusive method was also used where researcher played an active supervisory role in the survey. Copies of the SDDIG were given to the proverb composers as they went through with the guidance by the Field Assistants (FAs), however; the researcher was present most of the time to interview the respondents with the FAs.

During the event of proverb composition, the participants were made to identify each object on the SDDIG, understand its functions and properties and then use them for the proverb creation. While composing the proverbs the Field Assistants went ahead with scribing as well as rearranging the scribes to make them meaningful to the researcher and other readers. The researcher worked together with the assistants and also observed the whole activity while notes and photographs were taken. At certain points, audio recordings were made and replayed later for clarity.

3.23. Conceptual framework and creation of contemporary proverbs.

The study was guided by a conceptual framework identified in an Asante proverb on “the period to use Asante proverbs”. A popular Asante proverb says; *asem ba a, na abebu aba*, meaning; a proverb comes only when an occasion arises. Agyekum (2011) stated that, *Akanfoɔ bu be wɔ wɔn asetenam nneyɛɛ nyinaa mu. Bere a yebu ebe na edidi soɔ yi: nsaguo mu, asennie ase, adwabɔ anaa badwam, afotuo mu, adwumaye, awaregyee ne awareguo ase, ɔko bere mu, ne daa daa*

nkɔmmɔdie mu. This means, the proverb is used in all life-cycle events including libation, court sessions, durbars, counselling sessions, working periods, marriage and divorce, battles, as well as everyday conversation.

It is the belief of this researcher that, the moment a conversation begins; there is a demand for the use of proverbs. This conceptual framework was; therefore, appropriate for the creation of contemporary proverbs with the proverb creators in the study.

3.24. Anecdotal records

The methodology also included observation of activities of proverb-saying competitions on *Peace FM*, a radio station in Accra that features proverb-saying competitions usually for two contestants known as “*Wo bu be a yen nso yete be*” (if you speak in proverbs, we do understand proverbs). One of such competitions observed was held at 6.30 P.M. on 15th May, 2016; moderated by Nana Agyei Sikapa and Opanin Kwame Kyere. The two contestants Adam Idrisu and Samuel Danso presented 66 and 65 indigenous proverbs respectively during the programme which span over an air time of about one and a half hours. A portion of the competition was recorded and used during the FGD.

3.25. Collation of data.

The primary data collected from the respondents were collated and assembled, and thematically analysed, interpreted, and conclusions drawn from them. All the information gathered were presented in a descriptive form with

empirical explanations. Tables, and figures, were also provided to fortify the information gathered and presented in the research.

3.26. The need for creating new and existing proverbs.

Proverbs are terse sayings that embody general truths or principles and ways of life of a people. The general truths are based on people's past experiences, philosophy, perception, ideology, socio-cultural concepts and worldview (Agyekum, 2017).

The contemporary period is dynamic; new things are emerging, old things are being rebranded to have new looks, and existing proverbs are being updated. Popularity of a proverb is identified when many people can easily use it. To connect with other people from other parts of the world, the proverb has to play a universal role such that it could be related to proverbs in other cultures to provide universal meaning. Identifying contemporary objects that are mostly used universally as sources for creation of contemporary proverbs in this study was the best option to serve this purpose.

3.27. Materials and tools for wax modelling and the *cire-perdue* casting.

Selection of materials is a step in the process of designing any physical object. Material selection is one of the foremost functions of effective design, as it determines the reliability of the design in terms of industrial and economical aspects. A great design may fail to be profitable product if it is unable to find the most appropriate material combinations. It is, therefore; imperative to know what materials would be suitable and best for a particular design. The performance of an

engineering component is limited by the properties of the material of which it is made, and by the shapes to which this material can be formed. Under some circumstances a material can be selected satisfactorily by specifying ranges for individual properties. (Ashby & Cebon, 1993; Dieter, 1997: & Jayakody, 2011; cited in Aboagye, Yankson, & Frimpong, 2016).

In selecting materials for metal casting certain factors that enhance quality, durability, and performance were put into consideration. Aboagye, Yankson and Frimpong (2016, cited from Jayakody, 2011; & Kalpakjian & Schmid, 2006) postulated that, important factors to be considered when selecting materials for a particular design include; mechanical properties, corrosion, ability to manufacture, cost, and service required. In line with the aforementioned, brass was chosen as an alloy to be used.

Materials - Brass was chosen as the main metal for the casting process because as an alloy of two base-metals (copper and zinc), it is readily available, especially, in the scrap form at Suame *Magazine* (a cluster of mechanics workshops), a suburb of Kumasi. According Ofosu (p. c. 2016), brass has a golden colour that matches the name 'goldweights' and it is readily available and obtainable from scrap dealers at the Suame *Magazine* in Kumasi and at some points near sanitary sites where scrap dealers are located. Wikipedia free encyclopedia (accessed, 11th May, 2015) states that, brass is an alloy of copper and zinc and the proportions of the two metals can be varied to create a range of brasses with varying properties. It is used for decoration for its bright gold-like appearance and for applications where low friction is required such as locks, bearings, doorknobs, ammunition castings, and valves. It is also used for plumbing and electrical

applications, and extensively in brass instrument such as horns, saxophone, trumpet and bells where a combination of high workability and durability is desired.

Wright (2008) posited that, brasses are alloys of different composition of copper and zinc, and have 70 % and 30 % respectively as brass (C 26000) with green-gold colour, 85 % and 15 % respectively as gilding metal (C 23000) with tan-gold colour, and 95 % and 5 % respectively as gilding metal (C 22000) with bronze-gold colour.

By choosing brass as the appropriate material for the production of the goldweights, the study considered among other things the high malleability, the relatively low melting temperature of about 964° C, and its flow characteristics that makes it relatively an easy material to cast. Brass that has a composition of 70 % copper and 30 % zinc has a golden colour (specifically green-gold) and this was preferred because of its availability and its colour resemblance to that of 18 carats gold alloy of 75 % gold and 25 % silver which is commonly used in jewellery alongside gold alloy of 75 % gold and 25 % copper with red-gold colour.

Bees-wax was chosen to be the best material for the modelling. It was obtained in weights of one kilogramme from bee-keepers and honey-tappers at Ejura in Asante. Other materials used included fire-clay, palm-fruit fibre, and charcoal.

Tools - Modelling tools designed, forged, and carved in metal and wood respectively by the researcher would be used to model the wax miniature sculptures. The tools were rods with round and pointed noses, spatulas with flat and round ends, a knife, a pair of scissors, a pair of pliers, razor blades, chisels, clay crucibles, 2 pairs of tongs, a hacksaw, a piercing saw, a pair of shears, anvil,

and bench vice. These would be used for modelling of the wax into desired shapes and also in casting the miniature sculptures.

3.28. Preparation of the wax models and moulds.

Based on the drawings and photographs identified, the researcher used beeswax and employed the use of hand tools to model pieces of beeswax into required shapes. A thin strip of wax was joined to the topmost part of the model that created a sprue in the mould. The solid models are preferred to ensure solid castings, however; some of the castings were made by using the hollow casting process. Care was taken while using the tools to create surface details of the models; wax threads were also made and used to increase the surface texture of the models. Slurry (mixture of ground charcoal, dried clay, and water) was prepared and the models were dipped into the solution for every part to cover apart from the top of the strip. After 24 hours when the slurry had dried a second coating was made to increase the thickness and allowed to dry for another 24 hours. Palm-nut fibres were then mixed with wet clay and used to embed the entire models leaving the top of the wax strip after which they were left to dry in the hot sun completely. After drying, the expendable moulds were heated in the furnace until the wax models melted out leaving the cavities as exact replicas of the wax models.

These processes of wax modelling and mould preparation are in consonance with the postulation of Kyerematen (1964), Fox (1988), Asare (1981), and Untracht (1984) that the wax model is encased with refractory material and left to dry after which it is heated for the liquid wax to flow out to create a cavity in the mould.

3.29. The *cire-perdue* casting method.

Pieces of brass were loaded into crucibles while the moulds were turned upside down and fixed onto the crucibles with clay and left to dry in the hot sun. The moulds which were embedded together with brass were parked into the firing furnace with the crucible side up and fired at a temperature above 954° C until the metal melted. This was detected by the appearance of a bluish flame, and using a pair of tongs; the moulds were picked and turned upside down for the molten metal to flow into the mould cavity. The expendable moulds were broken to retrieve the casting after cooling.

The *cire-perdue* technique employed in the casting of the contemporary goldweights is justified by the process described by Phillips (2010), Mcleod (1981), Gidal (1971,) Rattray (1927), and Okyere-Boateng (2003) that, with the closed sprue method (Krofofrom process), the metal to be cast and the mould are embedded together and placed in the furnace; fired until the metal melts, and turned over for molten metal to flow into the mould cavity.

The cast contemporary goldweights were cleaned and assembled for some metal casters to compare with the already existing classical and contemporary weights to give them room for comments to be made.

3.30. How the study intends to introduce new trends in the production of goldweights.

- a. The study re-introduces the Asante technique of the *cire-perdue* casting process that has been neglected and almost in extinction to metal casters in Asante. It

involves the encasing of both the mould and pieces of metals to be used in the casting.

- b. The study adopts the mathematical equation that deals with weighing of the wax model on a weighing scale, and multiplying its weight by the Specific Gravity of brass (8.5) to determine the weight of brass to be used in casting a particular object. In this case, pieces of wax are measured by the same weight before modelling takes place.
- c. The study introduces identification of artificial (manufactured) objects for the production of goldweights which, hitherto, were based on mostly natural objects.

3.31. Summary of discussions.

The methodology for this study on production of goldweights that represent contemporary proverbs in Asante employed qualitative research approach and identified purposive sampling method for selecting thirty participants for the survey in seven communities in Asante including; Ayeduase, Appiadu, Banatama, Dwease, Deduako, Kwamo, and Korofofrom.

A self-designed drawing interview guide was made for the survey that gathered 216 contemporary proverbs used in the production of the contemporary goldweights by the Asante technique of the *cire-perdue* casting process.

Both descriptive and thematic analyses were employed to analyse the survey results collected for discussion.

CHAPTER FOUR

PRESENTATION OF DATA

4.1. Introduction

This chapter deals with presentation of data gathered from secondary sources and also explains the relevant information gathered from the interview results during the field survey. The study explored and generated goldweights based on Asante contemporary proverbs to support the already existing goldweights which are based on classical and indigenous proverbs and lifestyles.

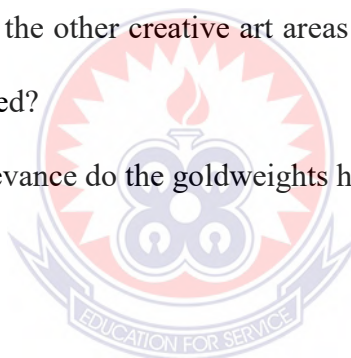
The study is an artistic research that used an art-based research method. The qualitative research approach was used as the methodology for gathering data as well as the employment of descriptive and explorative research design in the methodology. The results were gathered from documents, interviews, observation, guided by review of related literature and photography of the various activities carried out in the research.

In order to provide a convenient interpretation of the data, the results are presented in themes, tables, and photographs.

Thirty participants were involved in the survey in which they responded through interviews as well as Focus Group Discussion. The sampled population was grouped into five categories comprising: A - 2 proverb creators; B – 12 traditional leaders and elders; C – 2 metal casters, D - 4 educators in art and cultural studies; E - 10 students. The demographic data on respondents included age, sex, and educational background.

The main questions on the interview guide used during the survey were based on the five objectives of the research and the following corresponding five research questions:

1. What constitutes indigenous and contemporary proverbs in Asante and in what ways could Asante proverb creators be identified?
2. What is the practicability of using the proverb creators to compose contemporary proverbs?
3. What is the possibility of using the Asante technique of the *cire-perdue* process in the production of goldweights from the contemporary proverbs?
4. What are the other creative art areas that the created proverbs could be represented?
5. What relevance do the goldweights have on the created proverbs?



4.2. Information gathered from secondary sources

Researcher while conducting the interviews also read extensively on publications about English Proverbs from where many of the proverbs were gathered. The various compilations of the English Proverbs especially from the online also provided sources of some identified proverbs as Chinese. Contemporary proverbs gathered from compilation of English Proverbs on the internet and used were indicated as 'English proverb'. In all seventy seven (77) English proverbs were used. These proverbs were gathered from the Oxford Dictionary of English Proverbs (1963); <http://www.brainyquotes.com>; <http://www.thegreathandbookofquotes>; and

<http://www.englishproverbs.com>, and they were accessed between February, 2016 and March, 2017.

4.3. Written records

All the Field Assistants as well as the researcher had a copy of the SDDIG and a field note book for notes-taking both in English and Twi languages. The interview guide was arranged in the following pattern.

- a. Number of the item or event.
- b. Name of the item or event.
- c. Description and use or uses of the item or event.
- d. The created proverb or proverbs attached to the item or event.

Most of the proverbs were first written in Asante Twi Language by both researcher and FAs, while researcher later translated them into the English Language. The period spent on the creation of each proverb varied, all depending on the composer's knowledge of the function of the item and how it could be related to a classical Ghanaian proverb. The recorded average period of composing and explaining a proverb was about twenty minutes and the maximum number of proverbs created by the best of the composers per visit was five. In all one hundred and twenty-four (124) contemporary proverbs were composed by the proverb creators during survey, and these were presented in the work with 'Field survey' indicated against them, while the researcher composed 15 contemporary proverbs. The sources of all the contemporary proverbs used in the study are shown in Table 22.

All the 30 participants responded to the interview guide representing response level of a hundred percent.

Table 22. Sources of the contemporary proverbs used in the study.

Source	Number	Percentage
Field survey	124	57.40
Researcher	15	6.95
Secondary sources	77	35.65
Total	216	100

Source: Field survey (2016).

4.4. Gender distribution of respondents

In all, 26 out of the 30 participants were males while 4 were females representing 86.67 % and 13.33 % respectively as indicated in Table 23 female belonged to Category D while 3 females belonged to Category E. This is an indication that more males are involved in proverb creation, metal casting, traditional leadership, as well as art and cultural education.

Table 23: Gender distribution of participants

Status	Males	Percentage	Females	Percentage
Category A	2	6.67	0	0
Category B	12	40	0	0
Category C	2	6.67	0	0
Category D	3	10	1	3.33
Category E	7	23.33	3	10
Total	26	86.67	4	13.33

Source: Field Survey, 2016.

4.5. Age distribution of respondents.

The data indicated that, all respondents were between the ages of 20 and 70 years. In Category A, the two respondents were between 51 and 60 years.

In Category B, three respondents were between 41 and 60 years; four between 51 and 60 years, while 5 were between 61 and 70 years.

In Category C, one respondent was between 41 and 50 years while the other was between 51 and 60 years.

In Category D, all the four respondents were between 51 and 60 years, while in Category E, the entire 10 respondents fell within the age range of 21 and 30 years. There was no respondent above the age of 70 years and this is represented in Table 24.

Table 24: Age distribution of respondents

Status	20-30 Years	31-40 Years	41-50 Years	51-60 Years	61-70 Years	Total
Category A	-	-	-	2	-	2
Category B	-	-	3	4	5	12
Category C	-	-	1	1	-	2
Category D	-	-	-	4	-	4
Category E	10	-	-	-	-	10
Total	10	-	4	11	5	30

Source: Field Survey, 2016

4.6. Participants selected for the field survey

Out of 30 participants selected for the field survey, two were proverb creators whereas 28 answered questions on the phase two interview guide. These questions were based on the five research questions dictated by the objectives of the research. Both phase one and phase two interview guides were unstructured and all the respondents fully participated by answering most questions to the admiration of both researcher and FAs.

4.7. Information gathered on objectives of the research

4.7.1. *Objective one*

Information gathered from secondary data on research one on *what constitutes indigenous and contemporary proverbs in Asante and in what ways could*

Asante proverb creators be identified? indicated that indigenous Asante proverbs are wise sayings being part of oral literature that have been used since antiquity and have passed on from generation to generation without known authorship. Ampem (1998), Appiah and Appiah (2002), Kyeremateng (2000), Mieder, Wolfgang, and Dundes (1994), Paczolay (1998), and Valiulyte (2010), all share the view that, Ghanaian proverbs are well known and acceptable wise sayings that state a general truth, give advice, warning, encouragement, and express traditional thought on life; but the origin of the Ghanaian proverbs are not known, as they are not dated, although; there are authors of Ghanaian proverbs, their sources are all attributed to the forefathers.

From the results of the interview on research question one: *What constitutes indigenous and contemporary proverbs in Asante and in what ways could Asante proverb creators be identified?* The component questions were:

(a) *What is indigenous Asante proverb?* Seven respondents indicated that indigenous proverbs are old proverbs left behind by forefathers; a group of eight were of the view that, indigenous proverbs are those left behind for the current generation through oral tradition, another group of eight respondents indicated that, indigenous proverbs are those that were created from antiquity, whereas the last group of five indicated that indigenous proverbs are unrecorded wise sayings from the olden days.

(b) *What do you understand as contemporary Asante proverb?* eight respondents said, contemporary proverbs are newly created proverbs, eight mentioned that, contemporary proverbs are modern Ghanaian proverbs, seven said that contemporary proverbs are those describing contemporary items, and five respondents mentioned that, contemporary proverbs are proverbs depicting modern times activities. They all,

however, stated that Asante contemporary proverbs are coined from existing proverbs with the use of English nouns.

(c) *How can proverb composers be identified in Asante?* eight indicated that, proverb creators could be identified through traditional leaders in the Chief's palace, seven said that, proverb creators could be identified through elders and family heads, six indicated that, proverb creators could be identified through radio programmes on proverb competitions, whereas seven stated that, proverb creators could be identified through public speaking during durbars, outdoor ceremonies, funerals, and major festivals..

All the members involved in the FGD agreed to the respondents' views on three component questions on Ghanaian indigenous proverbs, contemporary proverbs, and identification of contemporary proverb creators.

It was also gathered from the FGD that, contemporary proverb creators could also be identified in Asante through public speaking during traditional durbars, funerals, festivals, and public events.

The contemporary proverb creators identified from the study include; Appiadu Yaw Barimah and Agyei Peprah (Also known as Akokora Nana or Nana Agyei Sikapa) currently of Peace F. M. both of whom became popular through "Akobalm Ebehene" proverb competitions organised by the Garden City Radio and moderated by Wɔfa Yaamoah Ɔnkɔ in 1992 and 1993. Others are Ɔkyeame Kwame Nsiah of Ayeduase, Ɔkyeame Osei Asibey, , Ɔpanin Kyei Gyamfi of Dominase, Emmanuel Oduro of Kwamo, Peter Faif of Fankyenebra, Akwadaa Nyame, Sukɔnoma Akwasi Gare of Appiadu, Ɔkyeame Takyi of Apromase, Omame Badu of Edweso, Kwabena Osei of

Bantama, Nana Antwi of Deduako, Akwasi Osei of Dwease, Nana Dwumfuor of Kurofofrom, Agya Kennedy, and ɔkyeame Takyi Mensah.

All the 28 respondents responded relatively to the questions. These corroborate with the proverbs by Agyekum (2011), Kwakye (2011), and Nsiah (2015) that, *Aboa a ɔnni dua, Onyame na ɔpra ne ho*. (God is the whisker for the tailless animal), *Akoa a ɔnim som no di ne wura adeɛ*. (A good servant can succeed his master), and *Se wopɛ se wohu suhyɛngyinabea a kɔ nsrahwɛ wɔ Tema* (If you want to see the harbour try a visit to Tema) respectively. While the first two proverbs are indigenous, the last is classified as contemporary, because ‘Tema’ ‘harbour’ are contemporary names in Ghana.

4.7.2. *Objective two*

On research question two: *What is the practicability of using the proverb creators to compose contemporary proverbs?* Twenty respondents stated that proverb creators could be gathered and be made to identify both contemporary items and events to be used for proverb composition, while the remaining eight were emphatic on the use of contemporary items only for the composition.

All members of the FGD agreed to the respondents’ view of the practicability of using the identified proverb creators to compose the contemporary proverbs based on both contemporary items and events.

It was observed that participants were not very sure of the possibility of existence of contemporary Ghanaian proverbs because their thinking was based on the fact that proverb creation is a reserve of the forefathers.

4.7.3. *Objective three*

On research question three: *What is the possibility of using the Asante *cire-perdue* technique in the production of goldweights from the contemporary proverbs?* Twenty respondents reported that, it involves the pouring of molten metal into a mould until it is dry for the casting to be retrieved, and it was being used for the production of body adornments including beads, finger rings, and necklaces, and therefore, could be possibly used for the production of the contemporary weights. The remaining eight respondents, who were not very sure of Asante being the origin of the Asante technique, reported that, it involves turning an embedded case of metal and mould upside down when heated for molten metal to flow into the mould to obtain the casting. They indicated that the Asante technique could possibly be employed in the contemporary goldweight production as it is employed in the production of a variety of artworks.

All members of the FGD agreed with the respondents' view of the possibility of using the *cire-perdue* casting process especially the Asante technique for the production of the contemporary goldweights.

It was observed that respondents had an idea about the *cire-perdue* casting process, however, most of them did not know the metals used in the process as well as history of the Asante technique. The name goldweight was also new to most of them although they had seen some weights which they described as mere forms of artworks. These observations were written down in the field note book by both researcher and Field Assistants and some goldweights depicting indigenous proverbs which were shown to the respondents are displayed in the this chapter.

During the casting process of the contemporary goldweights, photographs were taken from the wax modelling through, coating of wax models, moulding the wax models, de-waxing the moulds, embedding the pieces of brass and moulds, to the casting, and it was observed that although, the Asante technique appears to be complex; its employment is simpler than the general *cire-perdue* casting process which involves melting in a crucible and pouring into individual moulds. Selected photographs of the casting process are displayed in this chapter while photographs of all the 186 castings are displayed in Appendix C.

4.7.4. *Objective four*

On research question four: *What are the other creative art areas that the created proverbs could be represented?* The component questions were:

(a) *What interpretations or artistic impressions usually depict Asante proverbs?*

In response to component question 'a', eight respondents mentioned traditional *Adinkra* symbols, two said it was proverbial goldweights, seven mentioned textile motifs, three mentioned wall designs, three mentioned linguists' staff, while the remaining five respondents mentioned body adornments.

(b) *In which areas or art disciplines are the visual interpretations or artistic impressions used?*

Responding to component question 'b' twelve respondents mentioned textiles and fashion design, five mentioned wood works, three of them mentioned clay works, three of them mentioned metal works, three mentioned cement works, while two respondents mentioned canvas and paper works.

It was also observed that one of the areas of artistic impressions is curios. However, there was an indication that most respondents did not have much idea about goldweights because most respondents identified the weights that were presented by the researcher as mere decorative pieces.

The data gathered indicate that artistic impressions made from Ghanaian proverbs are used in all walks of life of the Ghanaian and almost everywhere in the environment. This is in consonance with an indication by Lange (2012) that, *Dagbon* proverbs are the reflection of the elders on the experiences on life and the environment which is predominantly a moral one. Similarly, Kyeremateng (2000), Appiah, and Appiah (2002), Kwakye (2013), and Dede (2015) noted that Ghanaian proverbs give advice, warning and encouragement, and express traditional thought on life, wisdom and superstition.



4.7.5. *Objective five*

On research question five: *What relevance do the goldweights have on the created proverbs?*

The component questions were:

(a) *What relevance do the goldweights have on the contemporary proverbs?*

Responding to the component question 'a' on the relevance the goldweights have on the proverbs, all the 28 participants responded that the contemporary goldweights serve as memorial or remembrance to the contemporary proverbs.

(b) *What impact does the relevance of the goldweights have on the contemporary proverbs?*

Responding to component question 'b' on the impact of relevance that the contemporary goldweights have on the contemporary proverbs, 15 responded that they are for historical and contemporary record keeping, while 13 mentioned that they are documentation of important events.

All the Focus Group Members agreed that both answers are related and, therefore, are positive to mean that, relevance the contemporary goldweights have on the contemporary proverbs is monumental record keeping other than oral record keeping.

It was observed that respondents had had some level of understanding of the study at the time of responding to the component questions under research question five.

Lastly on what other relevant information respondents have about brass casting of goldweights that interpret contemporary proverbs in Ghana, all the participants mentioned that the project was a step of reviving goldweight production and enhancing job creation in Ghana which needs to be encouraged and supported by the government.

4.8. Composing the contemporary proverbs

The two proverb creators fully participated in the exercise and throughout the data collection all the items and events identified were each used for a proverb composition. In some cases some objects were used to compose more than one proverb. The main language used for the proverb composition was the Asante *Twi* language that was italicised, however, because most of the contemporary objects do not have local names their English names were bolded and italicised, and maintained

in the write-up. Proverb composition and proverb creation were both used synonymously in the study.

4.9. Composition of proverbs by researcher

Researcher while collecting data was able to relate some contemporary items to nature, thereby, composing contemporary proverbs through this relationship. In all, the researcher composed fifteen (15) contemporary proverbs in course of the data collection and indicated ‘Researcher’ against those proverbs.

4.10. Presentation of the contemporary proverbs.

In all two hundred and sixteen (216) contemporary proverbs were gathered on the one hundred and eighty-six contemporary items and events for the study. This shows that two or more proverbs were created for some items or events. The following are the created contemporary proverbs arranged in groups and in this order: The name of the contemporary item or event, description, use (s), and corresponding proverb(s). The name of item or event is bolded while its description, function or meaning is placed in parenthesis. The proverb is italicised in the Twi Language followed by its meaning in the English Language.

4.10.1. *Proverbs about domestic items.*

1. **Clip** (A device for clipping clothes on dry lines). *Se mframa se zɔeyi nozɔma a esen ahoma soɔ agu fɔm a, emfaho ne clip a esɔ mu.*

The windstorm can decide to remove the cloth on the dry line regardless of the fact that the cloth held by a **clip**. (Field survey)

2. **Box iron** (A charcoal heat-producing device used to smoothen the surfaces of clothes)

Box iron se, enozɔmasie ntwaaamu na bidie nso nsaeɛ a, zɔnyae nozɔmatoɔ nso da.

The box iron says, as far as washing has not ceased and charcoal is available, it will never stop ironing. (Field survey)

3. **Match box / sticks**. (A box of slender pieces of wood which are scratched to produce flame)

(a) *Se zɔbi pa matches to baakofuo afuo mu peberɛ a, zɔmanmu no nyinaa di kɔm.*

If somebody carelessly scratches a match stick on a farm during the dry season, the whole community starves. (Field survey)

(b). *Dua korɔ ye matches mpempem nanso matches abaa baako betuni ahye nnua mpempem.*

One tree can make a million sticks of matches but a stick of matches can destroy a million trees. (English proverb)

4. **Toilet roll** (A roll of soft tissue paper used for toilet purposes)

(a). *Toilet roll asa no na yɛhu ne so mfasoɔ.*

Nobody appreciates the wealth of toilet roll until it is finished. (English proverb)

(b). *Abrabɔ te se toilet roll; erekɔ awieɛ no na ne ho reyɛ ha.*

Life is like toilet roll; the closer you get to the end, the faster it goes. (English proverb)

5. **Candle** (A round solid slick of wax with a wick lit to provide light as it burns)

Candle rehyerɛn ma obiara de ye nea ɔpe no nyinaa na n'ase rehye.

A candle lights for the benefit of others but consumes itself. (Field survey)

6. **Plastic chair** (A light-weight table chair made of plastic)

Ayɔnkofa bɔne te se plastic akɔnnwa (chair); se ɛbu na yɛsɔ a, ɛgya twa.

Bad friendship is like the **plastic chair**, if it breaks and is mended, it leaves a scar. (Field survey).

6. **Mosquito spray** (A tin containing a chemical used to repel mosquitoes)

Se ntontom si wo hwaa ho a yɛmfa mosquito sprayer nkum no.

When the mosquito lands on your testicles, you do not spray the spot with mosquito repellent. (Field survey)

7. **Suitcase** (A case with flat sides and a handle used for carrying personal belongings especially when travelling)

Se wo kuta w'ankasa wo suitcase a, wo ntumi ntu mmirika.

You cannot run when you are holding your own suitcase. (English proverb)

8. **Wardrobe** (A large case of furniture in which clothes are hung)

Baabi a wo wardrobe wɔ no, ɛhɔ ne wofie.

Your home is where you keep your wardrobe. (Field survey).

9. **Ironing board** (A table on which clothes are spread for ironing)

Ataadeɛ biara a y'asie no kɔ ironing board nkyɛn nanso obiara nyɛ n'adwene sɛ ɔbedware no da koro mpo.

Each washed clothe is assembled on the ironing board but nobody ensures washing the board. (Field survey)

10. **Toothbrush** (A plastic stick with bristle brushes at one end used to clean the teeth) (a). *Aduane nti obiara werɛ bɛfiri biribira anɔpa a, ɛnye ne toothbrush.*

Because of food nobody forgets toothbrush in the morning. (Field survey).

(b). *Sika yɛ ade pa, toothbrush yɛ ade pa; obiara nya obi sika a ɔpɛ, nanso obiara mpɛ obi toothbrush.*

Money is like standards; everybody likes it but nobody wants to use anybody's toothbrush. (English proverb)



4.10.2. *Proverbs about electrical / electronic and communication gadgets and accessories:*

11. **Decoder** (An electronic device that changes an electronic signal into a form that people can understand such as sound and pictures)

Senea yareɛ biara wɔ ano aduro no; saa ara na cypher ano aduro ne decoder.

Every disease has its medicine; cypher's medicine is the decoder. (Field survey)

12. **Laptop computer** (A portable computer that could be placed on the laps while in use).

ɔbaa pa te sɛ laptop computer; ɔba w'abrabɔ mu a, ɔwo wonkyɛn berɛ biara, ɔde wosie n'akoma mu, na ne werɛ mfi wo da.

A good wife is like a laptop computer; she enters your life and stays close to you, and saves you in her heart, and never deletes you from her memory. (English proverb)

13. **Computer keyboard** (A component of the computer that provides the all the alphabets and marks).

Computer keyboard a ɔye yɔnko pa no, deɛ chia no paa ne nnipa yɔnko fa.

A user friendly computer keyboard first requires a friendly user. (English proverb)

14. **Computer mouse** (A rounded component of the computer used to control its operation).

Senea remote control kyinkyim *television* no; saa ara na *computer mouse* kyinkyim

As the remote control drives the television; so as the computer mouse drives the computer. (Field survey)

15. **Television set** (A electronic system for transmitting both fixed and moving images with sound).

Se television se ɔnim wiase nsem a ɔnkyen ne *antenna*.

If the television is a good informant, it is not better than its antenna. (Researcher)

16. **Radio** (A device for transmitting voice information through waves).

(a). *Se radio* wɔ hɔ a, ankonam nni kuro mu.

The radio saves a community from boredom. (English proverb)

(b). *Radio* nni adamfoɔ koraa no, enye anifirafoɔ.

If the radio has no friends, at least it is a colleague to the blind. (Field survey)

17. **Microphone** (An electronic instrument that is connected to a speaker to intensify sound).

*Sɛ obi nni biribi ka kyere dɔm a, ɔmfa **microphone**.*

Nobody will hold the microphone if he has nothing to share with the public. (Field survey)

18. **Megaphone** (A conical shape device used to intensify the voice)

*Kwasea sɛ ɔntie afutuo a, emfa ho ne **megaphone** a wo bekasa agu mu abɔ dawuro.*

A fool will never take delight in good advice no matter the megaphone used. (Field survey)

19. **Light bulb** (A transparent rounded glass object that is plugged onto electric holder to produce light).

***Bulb** a obi de behye ne dan mu deɛ emfa aban ho.*

Government has no business telling an individual what kind of light bulb to buy. (English proverb)

20. **Electric iron** (An electric heat-producing device used to smoothen the surfaces of clothes).

***Electric iron** to ataadeɛ na mmom ento ataadeɛ nnwie da.*

The electric iron does the work of a great diversion from the reality you do not want to face. (English proverb)

21. **Fluorescent tube** (A tubular electric device that produces day-light).

*Onipa pa neyɔɛ te sɛ **fluorescent light**; sɛ enwuiɛ a, ehyiren bere biara.*

The good deeds of a man are like the fluorescent light; until it dies it always glows. (Field survey)

22. **Computer** (A programmable electronic device that can store, retrieve, and process data).

(a). *Computer* sɛ ɔnim biribiara nanso kyerekyerɛni na ɔma adesuafoɔ *computer* nimdeɛ.

The computer claims to know everything but it is the teacher who teaches the pupils to know the computer operation. (Field survey).

(b). *Sɛ wo internet te kɔ a, wo werɛ firi sɛ wo computer no tumi yɛ biribi foforɔ.*

If your computer loses internet service, you forget that it has other functions. (English proverb)

23. **Refrigerator** (An electrical cabinet that produces cold temperatures for food storage).

Ɛwɔmu sɛ nkwan nsɛɛ nti na yɛyi firi bokyɛa so a yɛdehyɛ fridge mu, nanso nkwan no firi fridge mu a yɛsan de si bokyɛa so biem ansa na y'adi; eno nti enye fridge ɔnko ne bokyɛa.

After cooking food on the tripod, it is kept in the refrigerator for preservation but it is again warmed on the tripod before it could be eaten, therefore; the refrigerator cannot compare itself to the tripod. (Field survey)

24. **Electric stove** (An electric heat produced gadget for cooking).

Sɛ wo werɛfi na w'annum wo bokyɛa mu gya a, ɛdane asɔmorofi ma kraman nya baabi da, nanso sɛ wo werɛfi na w'annum wo electric stove a ɛneɛ na asem sɛ bɛ.

If you forget to quench fire in the traditional tripod it turns a sleeping place for the dog, but if you forget to turn off your electric stove leads to destruction. (Field survey)

25. **Dry cell battery** (A device that produces direct electric current for portable electrical gadgets).

*Sɛna abodwɛɛ bɛtoɔ anintɔnnhwi no; saa ara na **electric power** bɛtoɔ **dry cell battery**.*

As the eyebrow is older than the beard; so as the dry cell battery is, to hydro-electric power. (Field survey)

26. **Audio cassette** (A small plastic case with a tape used to record and play sound).

*Abrabɔ te sɛ **audio cassette**; sɛ w'ammɔ a, worenhu deɛ ewɔ mu.*

Life is like an audio cassette; if you do not play it, you will never know what it contains. (Field survey)

27. **Compact disc** (A small flat disc on which sound or information is recorded).

(a). *Abrabɔ nte sɛ **compact disc** a ebɔ nnwom san bo biem.*

Life is not like compact disc on which music is recorded and could be replayed. (Field survey)

(b). *Apaawa bɛtumi de ne kɛsɛɛ asisi **compact disc** nanso enyɛ ne nimdeɛ.*

As the compact disc cannot compare itself to the record plate in size; so as the record plate cannot compare itself with compact disc in memory. (Field survey)

28. **Diskette** (A flat disk that is used to store data for computers to read).

*Yɛbɔ bra kɔ anim te sɛ **computer** yɔbea; ɛno nti **pen drive** ama **diskette** ho nni mfasoo*

Life moves forward like computer service; pen drive has made the diskette obsolete. (Field survey)

29. **Water heater** (An electric device that produces heat to boil water).

*Sɛ w'ani gye nsuohyeɛ ho na wotɔ **water heater** a, wotɔ **bucket** ka ho.*

If you love hot water; you do not buy only electric heater but also a bucket. (Field survey)

30. **Electric fan** (An electric machine with blades that turn round to create a current of air to cool the prevailing temperature)

Edan a me nana daa mu woo mma nyaa nananom no, ene se mansɔ electric fan a, meda mu a enyɛ yie, efiri se emerɛ sesa.

I cannot sleep in the room in which my grandmother lived her whole life today without the fan; because time changes. (Field survey)

31. **Washing machine** (A cabinet electric controlled machine used to wash and dry clothes).

Washing machine adwuma ne se ɔbesi nnoɔma a emfa ho se aponpono.

My job as the washing machine is to wash the dress, whether it smoothens or crumples; it is not my business. (Field survey)

32. **Electricity pre-paid meter** (A small case of electric device that records consumption of electric power).

Se pre-paid meter ho wɔ mfaso ma obiara a, eneɛ meter wura ne deɛ ɔretɔ anyinam ahoɔden no nyinaa mfa aseda ma recharge card.

If only required energy could make the re-paid meter supply power to the household; then both the owner of the prepaid meter and the user must be thankful to the recharge card that runs errand. (Field survey)

33. **Antenna** (An apparatus to receive and transmit radio waves and convert respectively to or from electrical signal).

Se antenna nni hɔ a, television nso nni hɔ.

Without the antenna the television cannot become a good informant. (Researcher)

34. **Traffic lights** (Signals that control traffic and pedestrians on the road by means of red orange and green lights as to when to stop, get ready, and move).

(a). *Awareɛ tesɛ traffic lights, ebi kɔ mu preko pe, ebi nya ntoboaseɛ, ebi nso nkɔ mu kora.*

Marriage is like traffic lights; some will go in, some will slow down while some will

not go in at all. (Field survey)

(b). **Yellow traffic light**; *obiara ntie m'asem nanso me na meda mfinimfini.*

Yellow traffic light; nobody pays attention to me but I am in the middle. (English proverb)

(c). *Onipa a ɔkasa bebree no te se yellow traffic light*; *obiara ntie n'asem.*

A person who usually complains is like the yellow traffic light; nobody pays attention to it. (English proverb)

35. **Flash drive** (A small tube-like device used to store data for computers to read).

Flash drive *wɔ nkaeɛ nanso nokwaresem ne se; deɛ w'awuo no, n'abrabɔsem nyinaa wɔ ateasefoɔ tirim.*

The flash drive has the ability to memorise; but the reality is that the life of the dead is in the memory of the living. (English proverb)

36. **Cell phone sim card** (A flat card on which information on how to use a cell phone is stored; and inserted in the phone before use).

Abrabɔ te se cell phone; *wode sim card hye mu pe na anigyesem foforɔ aba.*

Life is like a cell phone; whenever you insert a sim card, a beautiful day is activated. (English proverb)

37. **Remote control** (A small electronic gadget used to control electronic equipment from a distance).

Television *hwɛ te se ka bi ma menka bi amanmuo; tena baabiara wɔ wo dan mu na fa remote control yi station a wo pe.*

There is democracy in watching television; you sit anywhere in your room and use the remote control to vote. (Field survey)

38. **Modem** (A small device that encodes digital computer signals to analogue telephone signals and vice versa, and allows computers to communicate over a telephone line).

Modem de internet ma ɔdasani hwehwɛ deɛ ɔpɛ biara nanso awerɛhosɛm ne sɛ; sɛ modem yera a, obiara ntumi mfa internet so nhwehwɛ no.

The modem provides internet to search for everything but if the modem gets missing; the internet cannot search for it. (Researcher)

39. **Video cassette** (A plastic case with a tape used to record and play films on video).

Adansedie nti na video cassette yi mfoɔni ma obiara hu deɛ asi nyinaa.

It is because of evidence that the video cassette is there to provide demonstration of the actual operation. (Field survey)

40. **DVD player** (An electronic equipment that uses a disc to play music and films)
Esane sɛ compact disk player nnye compact disk nnie nti na ɔgye pen drive awaa awaa atuu.

Because the CD player does not trust the CD, it welcomes the pen drive. (Field survey)

41. **Solar panel** (A flat piece of equipment that is usually placed on a roof to collect energy from sunlight to generate electric power).

Ekwankyɛn solar panel kanea; ɔdasani tua ka nanso solar panel a ɔdan awia no; ɔntua hwee.

We pay for solar street lighting but the solar panel pays no tax to the sun for drawing solar energy. (Field survey)

42. **Portable hair dryer** (Small electric machines for drying the hair).

Hand dryer nni daberɛ wo barima travelling bag mu.

The hand dryer has no place in a man's travelling bag. (Researcher)

43. **Hair dryer** (A large electric machine in which the head is placed to dry the hair).

*Ahoofɛ; ne fɛ nti na ɔbaa bɛsia de ne tiri hyɛ **hair dryer** mu na anka nipa dasani nsɔ gya nsi n'apampa so.*

Beauty makes a woman put her head in the hair dryer, otherwise; under no circumstance would fire be set on the human head. (Field survey)

44. **Electric hair cutter** (A small electric machine used for hair cut).

*ɛnyɛ sɛ **hair cutter** ahyɛ n'adwuma ase ayi tire afiri anim anaa akyire no na ɛkyerɛ sɛ n'adwuma yɛ fɛ.*

Whether the hair cutter starts work from the back or the front of the head does not determine its perfect haircut. (Field survey)

45. **Score board** (A board on which the scores in a game or competition are displayed).

(a). *Yɛmmɔ **score board** soboɔ ɛfirisɛ **score board** ntumi nnye **bribe**.*

Do not blame the score board; human beings take bribes but not the score board. (Field survey).

(b). *Deɛ **score board** bɛka no ntumi mmu m'aba mu ɛfirisɛ me sunsum nyinaa hyɛ me m'agorɔ kuo mu.*

My heart can never break from what the score board says because my spirit is in my team and not the score board. (English proverb)

46. **Satellite dish** (An equipment with a big bowl that receives signals from a satellite, used to enable people watch satellite television).

***Satellite dish** wɔ ho yi, adwene nni ne tiri mu.*

A satellite dish has no conscience. (English proverb)

47. **Extension board** (A box with a cable for extension of electric power).

Extension board na ɔkyekyɛ anyinam ahoɔden ma dan mu noɔma nyinaa nanso deɛ ɔsɪi dan no ammɔ ne din wɔ krataa so.

The adaptor is the distributor of electric power to domestic gadgets but the builder does not include it in his design. (Field survey)

48. **Hand drill** (An electric tool held by the hands for making holes in wood, concrete and metals).

*Sɛ wopɛ sɛ wo pae pɔmpɔ a, ɛnyɛ **hand drill** na yɛde bɔ mu tokuro.*

If you want to burst a boil, it does not go by the use of a hand drill. (Field survey)

49. **Wall clock** (A large instrument hung on the wall of a building for measuring and showing time).

*Wo bɛtumi atɔ **wall clock** nanso wo ntumi ntɔ mmerɛ.*

You can buy the wall clock but you cannot buy the time it gives. (Field survey).

50. **Table clock** (An instrument that stands on the table used for measuring and showing time).

***Table clock** a ɛnyɛ adwuma no, aanyɛ bi koraa ɔkyerɛ mmerɛ mpɛnu dabiara.*

Even a table clock that does not work is right twice a day on the table. (Field survey)

51. **Headphone** (A piece of equipment worn over the head that makes it possible to listen to the radio or music without other people hearing the sound).

*Sɛ **headphones** hyɛ obi ti a, ɔnim sɛ wiase wɔ ɔno nkoa.*

If the headphones are on, one feels he is in his own world. (English proverb)

52. **Voltage stabiliser** (A small electric device that is fixed to big electric devices to control and stabilise its voltage).

*ɛkyena asem nti na yɛtɔ **stabiliser**.*

It is the enhancement of tomorrow's reuse that makes someone uses the voltage stabiliser to save today's breakage. (English proverb)

53. **Air conditioner** (An electric machine that provides cool or warm air to an enclosed area).

Sɛ air-conditioner rebɔ wo dan mu a, yɛmmue mpoma.

In an air-conditioned room, we do not open windows. (Field survey)

54. **Electric voltage transformer** (An electric device for increasing and reducing the voltage of electric power supply to allow a particular electric equipment to be used).

Transformer sɛ; ɔhwɛ merɛ tenten a ɔbɛsom ɔdasani na ɛnye ne som pa kɛkɛ nti na ɔwɔ hɔ.

The transformer says his secret is not how well he can serve but how long he can do it. (Field survey)

55. **Cell phone** (A portable cordless telephone for use in a cellular system).

(a). *Sika a yɛdesoma bofoɔ ma ɔkoka nkra no, cell phone agye; ɛfiri sɛ pam no o, tware no o, ne nyinaa ne sɛ m'akye no.*

Cell phone has confiscated the messenger's fee; all because everybody wants the fastest. (Researcher)

(b). *Amanedie nti na y'agye cell phone ato mu.*

The cell phone has been accepted because of distortion of information through messengers. (Field survey)

56. **Landline telephone** (A machine connected to cables used for talking to someone over long distances).

Telephone nni ani nanso ɔdi kɔkɔnsa sene obiara.

The telephone has no eyes but it is the most gossiper of all events. (Field survey)

4.10.3. *Proverbs about Kitchenware*

57. **Feeding bottle** (A bottle with a teat for storing babies' food and for feeding babies).

Sɛ wode feeding bottle ma woba aduane a woara na wopɛ; mmom nufuo deɛ ɛyɛ nhyɛ.

The use of feeding bottle is a choice but breast feeding is a responsibility. (English proverb)

58. **Food blender** (A electric gadget used for grinding vegetables).

Abrabo te sɛ blender; gyidie, ɛhu, ne abamubuo nyinaa di afra.

Life is like the blender where all hopes and aspirations are mixed up with fear and despair. (Field survey)

59. **Kettle** (A container for heating water).

Suban bɔne te sɛ kettle; wopɛ sɛ ɛma wo nsuohyɛɛ a, ɛyɛ dede ansa.

Bad habit is like the kettle; if you want it to provide hot water, it first provides hot noise. (Field survey)

60. **Microwave oven** (An electric container used to heat food).

Adwene a w'ada microwave oven mu da no nsuro ayɛɛne.

The fish that has been roasted in the microwave is not afraid of lightning. (Field survey)

61. **Disposable food bowl** (A food container made of plastic which is thrown away after use).

Onipa abrabɔ te sɛ take away bowl; ɛntena ase nkyɛ.

Man's life is like a disposable bowl; it is not made to last. (English proverb)

62. **Spoon** (An implement for eating, serving or stirring food).

Sɛ krakyeni sɛ ɔde atere (spoon) bedi aprapransa a, ma no kwan na ɛɛduru ne ntafereɛ mu.

If a person insists on using the spoon to eat potage, allow him; it would definitely get to the point of licking the plate. (Field survey)

63. **Vacuum flask** (A bottle-like container with double walls used for keeping both hot and cold liquids)

Deɛ ɔde nsuo guu vacuum flask mu no na ɔnim sɛ nsuo no yɛhye anaa sɛ ɛyɛ nwunu.

The one who filled the vacuum flask only knows whether the content is warm or cold. (Researcher)

64. **Disposable cup** (A drinking cup that is thrown away after use).

Disposable cup a yɛto twene san fa dane no yɛ biribi foforɔ no, sɛ yɛreka noɔma a yɛto twene a ɛnka ho bi.

A disposable cup that can be recycled must not be called disposable. (Researcher)

65. **Bottle opener** (A tool used to open the cork of bottles).

(a). *Sɛ opener nni hɔ a, obiara nte deɛ ɛwo toa mu deɛ.*

Nothing in the bottle can taste better without the opener. (Field survey)

(b). *Sɛnea gyeene nim sekan no, saa ara na toa nim opener.*

As onion knows the knife; so as the bottle knows the opener. (Field survey)

66. **Tin cutter** (A tool with a sharp side used to open canned foods by cutting).

Sɛnea opener nim beer no; saa ara na tin cutter nim tinapa.

As the opener knows the bottle of beer; so as the tin cutter knows the tinned fish. (Field survey)

67. **Breadknife** (A stainless steel one-edged zig-zagged cutting tool used for slicing bread).

(a). *Breadknife nhia sereboɔ.*

The breadknife does not need sharpening stone. (Field survey)

(b). *Breadknife nkoaa na onim deɛ ɛkɔso wɔ paanoo akoma mu.*

Only the breadknife knows what happens in the heart of the loaf. (English proverb)

68. **Fork** (A stainless steel or plastic tool with a handle and usually four sharp prongs for picking up and eating food).

(a). *ᲛᲃᲗᲗadeee ᲃᲗ nsateaa ansa na **fork** reba.*

Fingers were made before the fork. (Field survey)

(b). *Nsateaa nnum sᲗ adeee mu yie kyene **fork** mienu a wᲗnsateaa ye nnwᲗtwe.*

Five fingers hold more than two forks. (English proverb)

4.10.4. *Proverbs about hospital items.*

69. **Syringe** (A device for injecting human beings and animals with medicines).

Nnipa honam so nanso ne to nkoa na yede panee wᲗ desa no yaree.

The human body has various parts but it is only the buttocks that are mostly used for injection. (Field survey)

70. **Pair of scissors** (A cutting instrument having two blades whose cutting edges slide past each other).

*Kokrobotie ye apasoᲗ (**scissors**) kyitaafᲗ; se Თni ho a apasoᲗ ntumi nyee hwee.*

The thumb is the fortress of the scissors, without it the scissors cannot perform any function. (Researcher)

71. **Digital weighing scale** (A flat electric instrument used to determine the weight of objects).

*Se **weighing scale** reye n'adwuma a Თnim sika ᲗᲗᲗᲗ anaa dadebini.*

When the weighing scale is doing its job it neither recognises gold nor lead. (Field survey)

72. **Wheel chair** (A special chair with wheels used by people who cannot walk as a result of sickness, accident, or old age).

(a). *Stroller* nkɔkorabɔ mu ne *wheelchair*.

The wheelchair is the aged form of the children's stroller. (Field survey)

(b). *Wheelchair* nkyerɛ dɛmdie na mmom akwannya na eni hɔ ma nipa korɔ se ɔbetumi ayɛ noɔma nyinaa.

Disability exists not because someone uses a wheelchair but because the broader environment is not accessible. (English proverb)

73. **Thermometer** (An instrument used to measure the temperature of a particular area).

Kannifoɔ te sɛ thermometer; ehia thermostat berɛ biara a n'adwuma asɔrɛɛ.

Leadership is like the thermometer; it always needs a thermostat to regulate the temperature it identifies. (Field survey)

74. **Sphygmomanometer** (A medical instrument used to measure patients' high and low blood pressures).

Sɛ sphygmomanometer yɛ wo tanfo a, ennye ɔno na ɔma wo nyaa mmogya borosoɔ.

If the sphygmomanometer is your enemy, you cannot blame it for your high blood pressure. (Field survey)

75. **Stethoscope** (A sensitive medical instrument hung in the ears, used to check patients' heartbeat and respiration).

Sɛ sphygmomanometer nya anuonyam a ebi ka stethoscope.

If the sphygmomanometer receives glory, the stethoscope is not left out. (Field survey)

76. **Microscope** (An instrument used in medical and scientific studies for making small things look larger to become examinable).

(a). *Sɛ wo sika yera a, ennye microscope na yɛde hwehweɛ.*

If your money gets missing, it does not involve microscope in searching for it. (Field survey)

(b). **Microscope** *mu nkoa na yehunu se nnipa nkwa ye kese.*

It is only in the microscope that the human life looks so big. (English proverb)

77. **Ambulance** (A vehicle with special equipment used to convey sick or injured people to the hospital).

Se ambulance ye fe tese deen koraa a, obiara mpe ne lift.

No matter how beautiful an ambulance is; nobody wants to accept a lift from its driver.

(Field survey).

4.10.5. **Proverbs about construction equipment, materials, and tools.**

78. **Helmet** (A protective head covering for resisting impact).

Dee zka motor-cycle a znyeh helmet no ne de znyaa akwanhya da.

A motor cyclist without a helmet is the one who has never experienced an accident.

(English proverb)

79. **Screw driver** (A tool for tightening and loosening screws by turning).

Se wode screw driver mia dadoa so a, enoara na wode tu.

If you use the screw driver to fix a nail, it is screw driver that you use to unfix it. (Field survey)

80. **Water tap** (A metal valve that is connected to a pipe to allow the flow of liquid).

Se wo mia wo water tap mu yie na wo nsuo ansee a, eboa w'ankasa wodaakye.

If you close the tap well, you save water as well as secure the future. (English proverb)

81. **Caterpillar** (A heavy-duty vehicle that moves on metal belts used for road construction).

Caterpillar na ɔyi kwan nanso ɔpe se ɔfa kwan no so a, gyese obi soa no.

The caterpillar creates the path for road construction but it is not allowed to use the road unless it has been carried by others. (Field survey)

82. **Road roller** (A vehicular machine with heavy wide smooth rollers used for compacting roadbeds).

Road roller boa ma ye yi *lorry* kwan nanso awerhosem ne se, ɔrekofa kwan so a, yentumi nka n'anim nti yema no fa nkyenkyen.

The road roller plays a greater role in road construction but though, would not be prevented from using the road; it is only allowed to use the shoulders. (Field survey)

83. **Water closet** (A toilet bowl and its accessories).

Se wo siesie water closet so yie a, ɔnka deɛ w'ahunu nkyere obiara.

If you treat the water closet well by keeping it clean, it will not tell anyone what it has seen. (English proverb)

84. **Louvre blades** (Glass plates fixed in frames for use as windows).

Se woreto boɔ abɔ wo yɔnko louvre blades mu a, kae se wonso wodeɛ te saa.

Do not throw stones at your neighbour's glass windows when yours are the same. (English proverb)

85. **Pair of pliers** (A tool made of two pieces of metal with handles, used for holding things firmly and twisting cutting wire).

Se wotumi nye w'adwuma yie a m'enfa nhye wo pliers.

Do not blame the pliers for bad workmanship if it is the wrong tool for fixing a part; a bad workman always blames his tools. (English proverb)

86. **Spanner** (A metal tool with a specially shaped end for tightening and loosening bolts and nuts).

Spanner te se Ahenfo kyiniye, ebi deda ebi akyi.

The spanners are like the Chiefs' umbrellas; some are bigger than others. (Researcher)

(b). *Spanner a yede tu dadeε no eno ara na yede pia so.*

The spanner that is used to loosen the bolt is the same spanner used to tighten it. (Field survey)

87. **Shovel** (A hand tool, used for mixing concrete, and for moving portions of materials such as sand from one place to another, as well as for digging).

Emfa ho senea wobεε shovel mu; deε ehia ne se concrete no afra yie.

It does not matter how the shovel is held by the hands; the most important thing is whether the concrete is well mixed. (Field survey)

88. **Wash-hand basin** (A large ceramic bowl with taps and a sink usually fixed to the wall in a bathroom used for washing hands and small items).

Se wo hohoro wo nsa a, bε mpaεε efirise; wo wash hand basin no mu mpo, mmoamoa te hε.

If you wash your hands, say your prayer because germs are everywhere including your wash hand basin. (English proverb)

89. **Forklift truck** (A heavy duty vehicle with special equipment on the front for moving and lifting heavy objects at short distances).

Se forklift ye wodea a, enkyere se biribiara a εbesoa wε wo.

You can own a forklift but you cannot own everything that it carries. (Field survey)

4.10.6. *Proverbs about travelling equipment, items and accessories*

90. **Navigators' compass** (A device for determining directions).

Compass di akwankyerε so nanso nnipa nsusuyε di abrabɔ so.

Compass rules direction but decision rules life. (English proverb)

91. **Car** (A vehicle designed to move on wheels that take few passengers).

Se barima bue car pono ma ne yere a, na eyε car mono anaa se eyε ne yere foforɔ.

When a man opens a car door for his wife, it is either a new car or a new wife. (English proverb)

92. **Aeroplane** (A transport system that flies in the atmosphere and known to be the fastest way of travelling).

(a) *Aeroplane de wo bekɔ ntem nanso enkayerε se εde wo beduru pεpεpε.*

The aeroplane ensures quick arrival but does not assure safe arrival. (Field survey).

(b). *Gyidie nya wɔ aeroplane akwantuo mu yε sene deε gyidie nni mu.*

It is better to travel hopefully with an aeroplane than to just arrive with it. (English proverb)

93. **Bicycle** (A two-wheeled vehicle with paddles for propelling).

Se yεde bicycle soma ɔbi na bepɔ nni kwan so a, ɔde sereε na ekɔ san ba.

If a person is sent with a bicycle to a destination without hills, he goes and comes back smiling. (Field survey)

94. **Automobile battery** (Direct electric current equipment for automotive engines).

Adwene tesε car battery; eyε adwuma toaso kyε a, na εdi mu.

The mind is like the car battery; it recharges by constantly running. (English proverb)

95. **Articulated truck** (A long vehicle used to transport heavy load).

Driver a ɔka car no, εnyε n'afε ne driver a ɔka articulator.

There are more credits and satisfaction in being a tenth rate articulated truck driver than a first rate car driver. (English proverb)

96. **Train** (A long vehicle of coaches that walks on rails for carrying goods and passengers).

Awareε te sε keteke (train) nam dadeεsoɔ; sε wopεsε w'awareε sesa a sesa dadeε a woman soɔ no.

Marriage is like the train on a fixed track, the turns your train takes is part of reaching the final destination; in order to change the destination of your marriage, you must change your track. (English proverb)

97. **Ship** (A large vehicle that floats on the sea for transporting goods and passengers).

Sε ship keseε pia kɔ n'anım a nketewa nso nya kwan di n'akyi.

When a large ship opens the way, it becomes easy for small ones to follow. (English proverb)

98. **Vehicle tyre** (Thick rubber rings that fit around the edge of a wheel a vehicle).

Suban bɔne te sε flat tyre; w'ansesa no a wokɔ a enkɔ.

A bad attitude is like a flat tyre; you cannot get very far until you change it. (English proverb)

99. **Lorry** (A vehicle used to transport goods).

Awareε te sε lorry; εsε sε yεsiesie no berε ano berε ano sεnea εbetumi atena hɔ akyε.

Marriage, like a lorry must undergo regular servicing to make sure it is always roadworthy. (English proverb)

100. **Moped** (A motor-cycle with a small engine and also with pedals).

Moped pεsε wo som no bi nti na ɔnam a, ɔso ne pedals.

Because moped also wants you to serve him, he carries along his pedals. (Researcher)

101. **Motor cycle** (A two-wheeled vehicle powered by a motor).

Sɛ obi ka motor cycle sɛ deɛ ɛkyena nni ho a, ɛkyena nto no.

If somebody rides a motor cycle like there is no tomorrow; there will be no tomorrow for him. (English proverb)

4.10.7. *Proverbs about body adornments and protective items.*

103. **Spectacles** (A pair of protective cover for the eyes) .

Spectacles ma wo ho ye ha nanso se ɛbu na wode cellotape kyekyere a, ɛye adwumaye hunu.

Spectacles make you smart but if you break it and fix it with cellotape you look extra stupid. (English proverb)

104. **Wedding ring** (A finger-ring of gold given to the bride by the groom during the marriage).

(a). *Ayeforo kawa (wedding ring) hye abusua nyinaa anuonyam nanso sɛ awareɛ no sɛɛ a, ɛte sɛ kuro a ɛgya atɔ mu; ɛbinom redwane no na ɛbinom nso rebehwe.*

The wedding ring glorifies members of the whole family but when the marriage breaks, it is like a town set ablaze; while some people are running away, others would be rushing to watch the event. (Field survey)

105. **Shoes** (A pair of leather covering for the human feet with heels).

Onipa a ɔbo soboɔ daa sɛ ɔni mpaboa (shoes) no, da a ɔbɛhyia obi a ɔni nan no, obi nka nkyere no sɛ ɔnnyae soboɔ bɔ.

He who complains of having no shoes until he meets somebody with no feet shuts his mouth up. (English proverb)

106. **Canvas** (A pair of shoes made of a strong heavy fabric).

Obiara nim baabi a ɔno ankasa ne mpaboa (canvas) mia no.

Everybody knows where his own canvas pinches him. (English proverb)

107. **Gas mask** (A piece of equipment worn over the face as protection against poisonous gas).

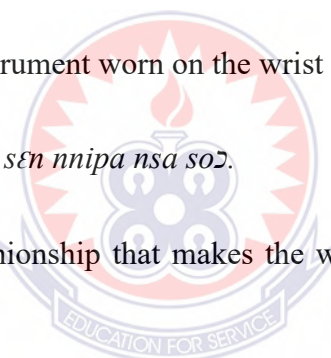
Se ewiase nyɛ hu a, anka ntɔkwa nsi obi manso mma ɔman foforɔ mu nnipa nhyɛ gas masks.

If we are not living in a horrible world, mere quarrel would not break in one country for people from another country to protect their lives with gas masks. (Field survey)

108. **Wrist watch** (An instrument worn on the wrist for measuring and showing time).

Onuadɔ nti na wrist watch sɛn nnipa nsa soɔ.

It is the beauty of companionship that makes the wrist watch stay on the arm. (Field survey)



4.10.8. *Proverbs about agricultural equipment and implements.*

109. **Wellington boots** (A pair of boots with a loose top reaching the knee worn at construction sites and agricultural fields to prevent the feet from getting wet).

Obiara hyɛ Wellington boot yɛ adwuma pɛ sika nanso sika ba na ɔfira ne ntoma pa bi a, ɔnkae no.

The Wellington boot is always used to work for money but when money has been used to buy beautiful clothes for adornment it is not remembered. (Field survey)

110. **Tractor** (A track laying automotive vehicle used for drawing farm equipment).

Esumasem a edi tractor ahoɔden wɔ adwumayɛ mu nyinaa gyina deɛ ɔka no so.

The mystery that surrounds a hardworking tractor already surrounds the hardworking operator. (English proverb)

111. **Pruning shears** (A garden tool with two cutting edges that slide past each other, used for cutting hedges and bushes).

Pruning shears sɛ ɔde neho deɛ, nanso papa mu o, bɔne mu o, ɔdasani nsa na

kyimkyim no.

Whether good or bad, it is the human hand that manipulates the pruning shears.

(Field survey)

112. **Chainsaw** (A large tool made of a chain with sharp teeth set in it that is driven by a motor and used for cutting wood).

Duabuo; sɛ eyɛ dene, sɛ eye merɛ, ne nyinaa gyina chainsaw operator no so.

Cutting down big trees does not only become easy but possible through expertise of the chainsaw operator. (Field survey)

113. **Rake** (A garden tool with a long handle and a row of metal points at the end used for gathering fallen leaves and for smoothing the top soil).

Sɛ wode wo rake firi me nne a, menso mede me shovel befiri wo kyena efrisɛ; nsa kɔ na nsa aba.

If you lend me your rake today, I will respond in kind when you come to borrow my shovel tomorrow. (English proverb).

4.10.9. *Proverbs about educational items*

114. **Pen** (An implement containing ink; used for writing and drawing).

Krakyeni pen ano yenam kyen sikan.

The pen is sharper than the knife. (English proverb)

115. **Pencil** (An implement containing a strip of lead used for writing, drawing, and marking).

Pencil bu a ɔmmu adɛe no asekyere nyinaa ne se, ɔhwease koraa a, eraser bɛma no so.

The pencil is not respectful all because it has the eraser behind it if it falls. (Field survey)

116. **Book** (A set of sheets containing written information bound into a volume).

(a). *Yenwhe nwoma (book) akyi mmu no aten.*

A book is not judged by its cover. (English proverb)

(b). *Nsemfua baako baako na eka bɔmu ye nwoma keseɛ.*

Word by word the big book is made. (English proverb)

117. **Eraser** (A piece of felt pad used to erase pencil marks).

Se pencil anim gu ase a eraser na ɔhye no anuonyam.

If the pencil disgraces itself the eraser is there for its glorification. (Field survey)

118. **Calculator** (A small electronic device for calculating numbers).

Se wode mfomso kyia calculator a, ɔno nso de mfomso gye wo so.

If you greet the calculator with a wrong input, it responds with a wrong output. (Field survey).

119. **Slide rule** (A rule-like instrument with a middle part that slides backwards and forwards used for calculating numbers).

Calculator ama slide rule atwa mu esane se biribiara wɔ ne berɛ.

The calculator has rendered the slide rule obsolete; there is time for everything. (Field survey)

120. **Seminar bag** (A flat bag for keeping documents mostly by students and teachers).

A flat bag for keeping documents mostly by students and teachers.

Seminar bag a eni nsa mpɛ se ɔde adeso a bɛto abatire so.

Seminar bag without a handle does not want to give the any burden to the shoulder. (Field survey)

4.10.10. *Proverbs about recreational items.*

121. **Balloon** (A light plastic bag that can be inflated with air to float in the atmosphere for decoration).

*Se wode adwen bɔne hyɛ wo tiri mu kyɛ na epae a, epae tɛse **balloon**.*

If you hide evil deeds in your head it one day explodes like the balloon. (English proverb)

122. **Unicycle** (One-wheeled vehicle with a saddle and two pedals for propelling).

*Abrabo te se **unicycle**; wopɛ se wo gyina hɔ yie a, kyere wo tutu so.*

Life is like the unicycle; if you want to keep your balance you must keep moving. (English proverb)

123. **Cigarette** (A Thin tube of paper filled with tobacco for smoking).

(a). *Sɛ wompɛ cigarette a m'ɛnfa taa yɔnkoɔ.*

If you do not like cigarette; do not become tobacco's friend. (Researcher)

(b). *Kwan pa a obi bɛtumi afa so agyae cigarette nom koraa ne sɛ ɔnsua nom koraa.*

The best way to quit cigarette smoking is to never start smoking. (English proverb)

124. **Bottle of beer** (A bottled alcoholic drink fermented from grains like malt and maize).

Beer a ɛwo toa mu; ɛfa adɔfoɔ, awerɛhofoɔ, ne anigyɛfuɔ nyinaa nsem nanso ɛbɔ fɔm na ɛpae a, na ɔadane nemuonyampɛ.

A bottle of beer is cherished by friends, the unhappy and merry-making people but it becomes a great enemy when it falls and breaks. (Field survey)

125. **Tricycle** (A cycle with three wheels ridden by children).

Nantɛ ahyasɛ ne tricycle na ɛnam na n'aweɛ deɛ, ɛne wheel chair.

Riding begins on a tricycle but ends in a wheel chair. (Field survey)

126. **Casino slot machine or Jackpot** (A machine that is used for games by slotting in coins).

(a). *Deɛ ɔdi nkunim wo jackpot mu no, ɔne jackpot no wura.*

The only one who wins on the casino slot machine (jackpot) is the one who owns it. (Chinese)

(b). *Sɛ obi amfa sika anhyɛ jackpot mu a, ɔnni sika.*

Nobody hits the jackpot without slotting in a few coins. (Field survey).

4.10.11. *Proverbs about sports equipment and items.*

127. **Football** (An inflated oval leather ball used in the game of football).

Football *abrabɔ, sɛ wonnim baabi a goal posts wɔ a, wo nnuru baabiara.*

In life as in football, you will not go far unless you know where the goal posts are.

(English proverb)

128. **Trophy** (An ornament presented to somebody or a group as a victory mark).

Din pa wɔ football mu mma abodin kruwa (trophy), gyese wohyɛ goal.

Reputations do not win the trophy in football matches; only goals do that. (English proverb)

129. **World cup** (The trophy presented to the victorious side during a world tournament).

World cup yɛ susudua ma yɛhunu nnipa a wɔnim ball bɔ wɔ wiase nyinaa.

The World Cup is a very important way to measure the best players. (English proverb)

130. **Hockey sticks** (Curved sticks used to play a ball game on the field).

Wode hockey stick redi n'agorɔ no; obi nkyerɛ wo sɛ ɛfa kɛsɛ no yɛ adwene na ketewa bi yɛ ahoɔden.

While playing with the hockey stick; ninety percent is mental while ten percent is physical. (English proverb)

131. **Table tennis bat** (A small wooden and plastic bat used for the Table Tennis game).

Table tennis bat *akyiri nni bat biara ma table tennis agorɔ.*

No other bat can replace table tennis bat in the table tennis game. (English proverb)

132. **Racket** (A piece of flat sports equipment used for hitting the ball in the game of Lawn Tennis)

Senea obi de ne racket bɛdi agorɔ da bɔne no, yɛka ho asem kyɛn da papa.

How well you play with your racket on a good day does not matter but how well you play with it on a bad day. (English proverb)

133. **Tennis ball** (A rubber ball with woolen surface used in the lawn tennis game).

Sɛ wofa tennis ball yɔnko a, tennis court dane wo fie.

If the tennis ball is your best friend then the tennis court becomes your home. (English proverb)

134. **Boxing gloves** (A pair of leather hand covers with fibre, used for the game of Boxing).

ɔkra a ɔhyɛ boxing gloves no, ɔnkye akura.

The cat with boxing gloves catches no mice. (English proverb).

4.10.12. *Proverbs about office equipment.*

135. **Swivel chair** (A table chair that is made to revolve).

Swivel chair ma w'adwuma dɔɔso na enkyerɛ sɛ ɛma ahotɔ.

The swivel chair was designed to increase your job responsibilities but not for pleasure (Field survey).

136. **Office stamp** (A tool that is held in the hand and used to print the date, an officer's position or rank as well as name of an organisation).

Se ink pad nni hɔ a, rubber stamp nni anuonyam.

Without the ink pad the rubber stamp gains no reputation. (Field survey)

137. **Stapling machine** (A device used to binds paper sheets together by driving in a thin metal staple against the back surface of the paper).

Stapling machine ka nkrataa bo mu nanso entumi ntete nkrataa ntɛm.

The stapling machine binds pieces of papers but unlike the screw driver, it is not involved in unbinding the papers when loosening them. (Field survey)

138. **Paper perforator** (A tool used to make holes in materials like wads of paper for fastening).

Yɛmfa paper perforator mmɔ dadeɛ mu tokuro.

If you want to perforate a metal plate, you do not use paper perforator. (Field survey)

139. **Office printer** (A machine connected to the computer to print particularly text on paper).

(a). *Se office printer tumi kasa a, anka nsem a ɔbɛka deɛ ebi nni wiase.*

If the office printer could find utterance, it would speak volumes. (English proverb).

(b). *Senea nnipa ahoɔden gyina mogya soɔ no, saa ara na office printer ahoɔden gyina ink soɔ.*

The office printer's blood is ink. (Field survey).

4.10.13. *Proverbs about musical instruments.*

140. **Saxophone** (A metal wind instrument used in playing jazz music).

Sɛ saxophone nne yɛ wo dɛ a, bɔ dɛ ɔyɔɔɛ aba so.

If you enjoy the music of the saxophone; praise the one who invented it. (Field survey)

141. **Piano** (A large musical instrument played by pressing both black and white keys on the keyboard, producing sound by small hammers hitting the strings within).

Sɛ wobɔ sankuo (piano) na ebeyɛ dɛ a, ɛfiri nensa tumtum ne fitaa no nyinaa.

For perfect harmony, you need both the black and white keys of the piano. (Aggrey; quoted from Taylor).

142. **Electric organ** (An electric large musical instrument with both black and white keys that produces the sound of air forced through pipes).

ɔdɔ te sɛ sankuo (organ); wo di kan nya suahunu ansa na wobɛtumi abɔ afiri w'akoma mu.

Love is like the organ; first you learn the rules, then you can play from your heart. (English proverb).

4.10.14. *Proverbs about edible items.*

143. **Bottled water** (A sealed plastic bottle filled with purified water for drinking).

Nsu pa a eyɛ bottled water no, ensɛɛ.

Properly sealed bottled water does not have a limited shelf life. There is nothing in it to spoil. (English proverb).

144. **Sachet water** (A small transparent plastic bag filled with purified water for drinking).

Abɔfra biara pɛ sachet water nanso yete ano mpanin nyansa mu.

Sachet water is common to children but its opening is not common to them; it takes wisdom. (Field survey)

145. **Tinned fish** (A tin containing preserved fish for consumption).

Enyɛ deɛ emane pɛ ne sɛ daa ɔhyɛ tinapa (tinned fish) kyɛnsen mu.

It is not the wish of the herring to be called tinned fish. (Field survey)

146. **Coca cola** (A cola beverage usually preserved in a bottle).

Coca-Cola toa (bottle) a abɔ koraa no obiara hunu sɛ ɛyɛ Coca-Cola toa.

As someone you know can be identified in the night without lights; so as broken Coca-Cola bottle can be identified as Coca-Cola bottle. (Field survey).

4.10.15. *Proverbs about other items (One)*

147. **Padlock** (A removable lock for gates and boxes).

Senea yɛbue pono na yeto mu no, saa ara nso na yɛbue krado (padlock) a yeto mu.

As the gate is closed and opened so as the padlock must be locked and unlocked. (Field survey).

148. **Fuel dispenser** (A gadget at fuel filling stations that pumps and dispenses fuel into vehicle fuel tanks).

Sɛ lorry ankɔ fuel dispenser nkyɛn a, ɔntumi nyɛ hwee; lorry mfa fuel dispenser ho abofuo.

The vehicle cannot function without visiting the fuel dispenser; fuel dispenser will never visit the vehicle. (Field survey).

149. **Automated Teller Machine** (An automated gadget that dispenses money from bank accounts to customers by slotting a card).

Krakyedwuma te sɛ ATM; wode krataa wura mu a, wode sika na ɛba.

White collar job appointment is like the ATM; you go in with a card and come out with money. (Field survey).

150. **Lawn mower** (A machine with four wheels used for cutting grass on lawns).

Sɛ obi bɛhunu nsensan ahoɔfe a, gyese lawn mower ayɛ n'agwuma yie.

The beauty of grass is identified if the lawn mower has done its work perfectly. (Researcher)

151. **Camera** (A piece of equipment for taking photographs).

Obi bɛtwa photo a, na nnipa mienu na ɛwo hɔ; camera wura no ne deɛ camera no bɛtwa noɔ no.

There are always two people in the photograph a camera makes; the photographer and the viewer. (English proverb)

152. **Bill board** (A large panel designed to carry outdoor advertising).

(a). *Billboard* yɛ kasamaafo ma sukɔm nanso ɔnku sukɔm.

Billboard is a merchandiser for thirst but it does not quench thirst. (English proverb)

(b). *Nkoguo yɛ billboard a yɛhwɛ so sua adeɛ di nkunim.*

Failure is a billboard to turn to success. (Field survey)

153. **Wallets** (Small flat folding cases made of leather used for keeping paper money and cards).

(a). *Sɛ wo wallet mu nyɛ duru a, wo ntumi nnuru ɔbaa akoma mu.*

The way to a woman's heart is through the wallet. (English proverb)

(b). *Mentumi nnwia m'ankasa me wallet.*

I cannot steal my own wallet, (English proverb)

154. **Fire extinguisher** (A metal container with a liquid chemical used for putting out fire).

(a). *Nkɔkorabɔ wɔ tumi te sɛ fire extinguisher; ɛdum mmerante gya.*

Old age is a perfect fire extinguisher for the flaming youth. (Researcher)

(b). *Nyinkyɛre te sɛ fire extinguisher; ɛwɔ tumi a yɛde si ɛgya ano.*

As you grow old you are like the fire extinguisher; you have the ability to control flames. (English proverb)

155. **Babies' car seat** (A leather seat designed for babies to sit in with belts to fasten and protect them in a car).

Abɔfra ho banbɔ nti na broni yɛɛ babies' car seat nanso ɛbɛwie aseɛ, ne nyinaa ne driver ahwɛyie.

Children's car seat means safety first for the child but the driver's carefulness means safety always. (Field survey)

156. **Stroller** (Babies' cot with four wheels and handles that can be pushed as the pushers stroll for babies to relax).

(a). *Stroller ma abɔfra de ne ho nanso, obi nkyerɛ no sɛ ɔnsɔre nnante berɛ a ɔrenyini.*

The stroller makes a child content but nobody will ask the child to leave it and walk as he grows. (English proverb)

(b). *Abrabɔ ahyeaseɛ ne stroller na enam, na n'awieɛ nso yɛ wheelchair.*

Complete life begins with a stroller and but its end is a wheelchair. (Field survey).

4.10.16. *Proverbs about other items (Two)*

157. **Rain gauge** (An instrument used to measure the volume of rainfall over a period).

Aboterɛ te sɛ rain gauge; se nsuo ntoeɛ a, ɔtwɛn dinn hwɛ anim.

Patience is like the rain gauge; until it rains, it waits hopefully. (Field survey)

158. **Binoculars** (A double tubular instrument with lenses that make objects far away seem nearer when one looks through them).

Wontumi mfa aseda mma binoculars na wonnyi w'amkasa w'ani boniayɛ.

You cannot be grateful to your binoculars and show ungratefulness to your own eyes. (Field survey)

159. **Water dispenser** (A transparent container with water that is dispensed for drinking).

Water dispenser *ntesε asubɔnten; sε wonom mu nsuo ma esa a; w'ankasa na wo sa bi gu mu.*

Water dispenser is not like the stream; if you finish the water in it, you refill yourself.

(Field survey)

160. **Manual sewing machine** (A machine that is used manually to sew things that are made of fabrics).

Senea yenfa ano a yede bɔ bosea ntua ka no; saa ara nso na yenfa sewing machine nsane ntoma a yede pam no.

As the tongue that goes for a loan is not the same tongue that repays; so as the sewing machine does not loosen the cloth it sews. (Field survey)

161. **Sign post** (A board bearing a notice or sign to direct people).

(a). *Baabia signpost ano duru no, anamɔn kwan hye aseε.*

Where the signpost ends the trail begins. (English proverb)

(b). *Esane sε signposts nni εpo so nti na compass mpa apofɔ ho da.*

Because there are no signposts in the sea, navigators do not forget the compass.

(Researcher)

162. **Scorecard** (A card on which the scores in a game or competition are written).

(a). *Yemmɔ scorecard soboɔ εfirisε scorecard ntumi nnye bribe.*

Do not blame the scorecard; human beings take bribes but not the scorecard.

(Field survey)

(b). *Abrabɔ te sε ntomago; yenhoro no dan mu te sε scorecard nhata wɔ abɔnten te sε scoreboard.*

It is better to live your life by inner scorecard than an outer scoreboard. (English proverb)

163. **Money counting machine** (A machine used for counting paper money with a meter that displays the number of notes counted).

*Yempɛ nsateaa nti na yɛyɔɔ **Money Counting Machine** nanso sɛ ɛsɛɛ a, nsateaa wɔ hɔ, ɛfirisɛ; sankɔfa wɔ hɔ yi, yɛnkyi.*

Money counting machine was manufactured to replace the fingers, but when it cannot function, we revert to the use of fingers because it is not forbidden for one to forget and go back to pick it. (Field survey)

164. **Cash register** (A machine used in shops that has a drawer for keeping money, and that shows and record the amount of money received for each item that is sold).

165. **Waste bin** (A large plastic container for keepin waste and garbage before disposal).

*Sɛ **waste bin** mu yɛ baabi a yɛboaboa noɔma ano sakra no ma ɛdi mu a, ɛnɛɛ sɛ yɛreka agyapadɛ a, ɛka ho bi.*

If the waste bin is a home for recyclable materials; then it must be counted among treasures. (Researcher)

166. **Gas cylinder** (A container in which ligiud gas is kept for combustion).

*Sɛ wo tena hɔ ma obi kyɛrɛ wo **gas** dodoɔ a ɛsɛ sɛ wo tɔ gu w'ankasa wo **gas cylinder** mu a, ɛsa berɛ a w'anni nna soɔ.*

If you fuel your cooker on the opinion of others, you ran out of gas. (English proverb)

167. **Robot** (A machine that can perform some tasks that a human being can do and that works automatically or is controlled by a computer).

(a). *Se South Africa manfoɔ nte aseɛ se Abibifoɔ binom agye wɔn adwuma nti wɔbɛkumkum wɔn a, eneɛ edeɛben na wɔn de beyɛ robot?*

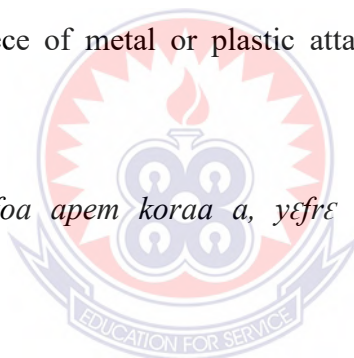
If South Africans would kill fellow Africans for taking up their jobs, what would they do to robots? (Researcher)

(b). *Robot betumi ayɛ nnipa adwuma ama no nanso ɔntumi nsi nnipa anan mu.*

The robot can help tackle the numerous problems human beings face but cannot replace the human being. (English proverbs)

168. **Key holder** (A piece of metal or plastic attached to a bunch of keys to give identity).

Boniayɛ nti mesoa nsafoa apem koraa a, yɛfrɛ me keyholder nanso anka meyɛ keyholder.



Even if I hold one thousand keys, they still call me a keyholder instead of keysholder. (Field survey)

169. **Disposable shaving razor** (An instrument with sharp blades used for shaving the human skin and thrown away after use).

Disposable shaving razor blade ano ye nam kyɛn akuma nanso ɛntumi ntwa dua.

The razor blade is sharper than the axe but it cannot cut wood. (Field survey)

170. **Laptop bag** (Portable leather cases in which laptop computers are kept and hung on the shoulders).

Se wo fa laptop yɔnkoɔ a, eneɛ laptop bag nso mpa wo kɔn ho da.

If laptop computer becomes your friend, you will never cease hanging laptop bag on your shoulder. (Field survey)

4.10.17. *Proverbs about major contemporary events in Ghana.*

171. **The independence Arc:** (Mark of complete independence in Ghana).

Akwasi Broni se w'ama Ghana fowohodie (independence) nanso ɔbetɔ Ghana kokoo (cocoa) koraa a, ɔno ankasa twa ne boɔ.

The white man claims to have given independence to Ghana but he determines his own price when buying Ghana's cocoa. (Field survey)

172. **A soldier aiming a gun at a target.** (An era of Military dictatorship in Ghana) .

(a). *Soldier bi a ɔdwane de ne ho siee 1982 mu a yetuu no senee no, enne; ɔni nanankansoa koraa no, enye nananom.*

The soldier who went into hiding and was named a dissident is now a grandparent if not a great grandparent. (Field survey)

(b). *Amanee a soldier aban maa etoo ɔdiyifuo Asare 1982 mu wɔ Kumasi maa wokyea ɔdiyifuo biara a na w'ayi n'ani no; etese Petro yi a ɔyii Yesu Kristo maae no.*

The molestation and lynching of ɔdiyifuo (prophet) Asare in 1982 that led to most prophets disguising themselves from people they even knew is like Biblical Peter's betrayal of Jesus Christ. (Field survey)

173. **1978 proposed Union Government (UNIGOV).** (A proposed Union Government by the then Head of State of Ghana, General Ignatius Kutu Acheampong which was rejected in a referendum in 1978).

Ghana Union Government no, na etese woreyen nnwan na pataku frafra mu.

The proposed Ghana Union Government was like a flock of sheep with wolves. (Field survey).

174. **Operation Feed Yourself (OFY).** (A Ghana government intervention that introduced all inclusive agriculture including peri-urban).

Operation Feed Yourself: Kwaeɛ nie, mfofo nie; dɔ di woara w'adeɛ yɛfo sene sɛ wobɛɔ afiri obi man so.

Operation Feed Yourself: With availability of fertile lands, it is cheaper to cultivate to feed ourselves than to import food. (Field survey)

175. **Ghanaian returnee from Nigeria.** (A period between 1981 and 1982 when Ghanaians in Nigeria without residence and work permit were expelled).

Nigeria aban alien expulsion order; obiara redwane aba Ghana no na ne noɔma bobɔ ne bo ɛfirise, wo ba no nsapan a wofa betwani adamfo.

Nigeria's alien expulsion order; whoever ran back to Ghana had to come along with luggage hung all over the body because with empty hands you daily stay in the bush with the palm-wine tapper. (Field survey)

176. **HIV AIDS.** (The fight against the deadly disease HIV / AIDS in Ghana).

Obi bebɔ adwamanbɔne anya yarewuo HIV / AIDS no, eneɛ na akokɔ nkwan a sotorɔ da ho no, fanyinam bankye apɛsie a asomdwoeɛ da ho.

For indiscriminate sexual activity leading to HIV / AIDS; consider eating your own boiled cassava than somebody's stolen chicken. (Field survey)

177. **Ebola scare** (The creation of awareness and fight against Ebola in Ghana).

Yareε kɔdiawuo Ebola, busuani a ɔde wo rekɔ ayaresabea anya amane, Nurse a ɔrewhe wo anya amane, Doctor a ɔresa wo yareε anya amane; eneε ɔbɔɔadeε se atɛnmuo wɔ hɔ a yɛnnye akyinnye.

Ebola the killer disease; if whoever picks the victim to hospital is at risk, so as the Nurse, as well as the Doctor, then indeed, nobody should challenge the end of time.

(Field survey)

178. **2001 Stadium disaster.** (The 9th May, 2001 disaster at Accra sports stadium in a football match between Kumasi Asante Kotoko and Accra Hearts of Oak in which more than a hundred people lost their lives).

Ghana stadium disaster adi yen tiri mu dem tese huriye na edaadi pfee se; ampa yeduru amanfooso a, yekae yaanom.

Ghana's stadium disaster on 9th May 2001 is a tragedy that reminds every spectator of being cautious at any stadium. (Field survey)

179. **1982 Cocoa evacuation exercise.** (A period in the annals of Ghana when the country's university students volunteered to evacuate cocoa from the hinterland to the ports for export).

Nhye ma nnipa ye adeε a ɔnyee n'adwene se ɔbeyε; enye saa a, anka obi nsoa kookoo lorry ma kwa, wɔ bere a kookoo krakye agye ho sika agu ne futuo mu.

Application of force makes people do what they are not willing to do otherwise no one could be compelled to carry bags of cocoa into the lorry whereas the secretary receiver of cocoa had already been paid to do so. (Field survey)

180. **Female soccer.** (A period in Ghana when female national football team played series of international football matches)

*Emaa ne emaa na ebɔ **football** na enye emaa ne marimma na ebɔ efirise, esono barima dompe na esono ɔbaa kasɛe.*

Women play against women in football but not women against men because; the male anatomical structure is different in strength from that of the female. (Field survey)

181. **Bumping dance.** (A kind of youth dance in Ghana in the 1970s that involved the hitting of hips).

*Sɛ ɔbaa warefo ne barima sa **Bumping** wɔ badwa mu a nenkumaafo te neso atua.*

If a married woman engages herself in Bumping dance with a man in public, her sisters-in-law turn against her. (Field survey)

182. **Azonto dance.** (A kind of millennium youth dance originated in Ghana in 2011).

*Senea **Bumping** ba twaa mu no, saa ara na **Azonto** nso betwa mu efirise; frɔmfrɔm nte hɔ daa, ena aboa koterɛ nso wɔ eyam aduro a, anka skorɔ nni n'akyi.*

As the period of *Bumping* dance came to pass, so will be *Azonto* dance because no condition is permanent, and as such; if the lizard had remedy for skin rushes it would not have had eczema on its back. (Field survey)

183. **National Health Insurance Scheme (NHIS).** (Introduction of the Ghana National Health Insurance Scheme in 2001 and free antenatal care for pregnant women).

*Barima a ne yere wɔ **health insurance** no na ɔnya din Ata Papa a ɔmmɔ ka pesewa mpo.*

A man whose pregnant wife is on a health insurance could be proudly called 'Ata's Father' (father of a twin) without thinking of paying a pesewa for the babies' delivery. (Field survey)

184. **School Feeding Programme.** (A Ghana government intervention in Basic Education namely; Capitation Grant, and School Feeding Programme).

School feeding programme nhyehyɛɛ no, ne fɛ nti na mmɔfra beberee pɛsɛ wɔkɔ school na ɛnyɛ sɛ wɔn awofoɔ ntumi mma wɔn aduane nni wɔ fie.

The beauty of the School Feeding Programme attracts more children to enroll in school, although; their parents can afford feeding them at home. (Field survey)

185. **Zoomlion operations** (An environmental and sanitation programme in Ghana operated by Zoomlion Ghana Limited).

Zoomlion adwumayɔ; sɛ obi prapra wo fie anim ma wo a, ɔnnya amane nanso, ɛmma ɔbi nka nkyere wo sɛ di wo ho ni.

Zoomlion operations, though, ensure cleaning up of your environment; that does not give you the opportunity to keep your surroundings filthy. (Field survey)

186. **Democracy.** (The massive acceptance of democratic governance in Ghana and the 1992 Fourth Republican Constitution).

Ka bi ma menka bi (democracy) nti na yeyɛ ballot box; eno nti sɛ obi fa kɔto twene a na w'adi ɔman mu no nyinaa awu ɛfirise; aama manka m'asɛm yeya paa.

The ballot box was made for exercising franchise, therefore; if someone bolts with it to prevent others from casting their ballots, it becomes calamitous to the whole community because; it is unlawful for a person to prevent others of same status from enjoying equal rights. (Field survey).

4.11. Focus Group Discussions (FGD) on created proverbs.

Methodology for the Focus Group Discussion (FGD) was earlier discussed with the proverb creators and it was agreed that all the created proverbs would be read by the researcher or the Field Assistants (FAs) while the members listen with rapt attention. It was agreed to allow certain portions of some of the created proverbs to be critiqued and corrections effected before acceptance.

The two (2) proverb creators were involved in the Focus Group Discussions (FGD) as well as three (3) traditional elders and two (2) Field Assistants at Appiadu in Asante. The FGD was organised on five different occasions and the same participants for the first discussion were mostly involved, and as usual, the Asante *Twi* language was used in the event.

Portions of the FGDs were recorded using audio-visual means and recording those portions that way provided the opportunity to play-back for clarity of expression in the proverb interpretation. Dorgbadzi (2016) reported that the language of the video camera is probably the best current technology with the potential to capture and reproduce the visual recording and also produce an accurate audio recording of the data collection sessions.

The FGD took more than five hours each day as researcher and group members sometime had to break for lunch and continue afterwards, however, the lunch break was always full of conversation and analyses of the contemporary proverbs interpretation. The discussion was characterised by folk stories and historic tales to enhance clarity of interpretation to a few of the contemporary proverbs, whereas, most of them were accepted by only relating to some classical Ghanaian proverbs. There was also a lot of the created proverbs that were outrightly accepted

during the FGD without further comments. Throughout the FGD the two proverb creators used indigenous Ghanaian proverbs to support their usual conversation that was not part of the discussion and the word in those proverbs were completely *Twi* words without any English noun. They sometimes used simpler proverbs to explain complex proverbs.

Most of the group members although, understood some of the created proverbs; they questioned certain portions on them to make them more meaningful. The proverb creators were seen to be very knowledgeable and creative in the art of proverb composition; they both accepted all their lapses and made corrections to ennoble the wisdom in the created proverbs. In the case of the English proverbs, only a selected number was discussed as most of them were familiar to some of the members.

All the created contemporary proverbs consisted of both *Twi* and English words while some consisted of names of both natural and manufactured objects. The FGD concluded that, since most of the contemporary proverbs are related to indigenous proverbs, the contemporary proverbs either derive from existing proverbs or dictated by existing proverbs. Contemporary proverbs could, therefore, be said to be updates of existing proverbs.

Many photographs were taken during the FGD; however, only three of them were selected for presentation shown in Figures 3 and 4. The FGD ended successfully with the pouring of a drink in libation by an elder of Appiadu, Nana Bonsu.



Fig. 3 a: A section of the FGD at the Akyeamehene's Palace at Appiadu
Source: Field survey (2017).



Fig. 3 b. A section of the FGD.
Source: Field survey (2017).



Fig. 4. Researcher asking a question during the FGD.

Source: Field survey (2017).

4.12. The *cire-perdue* casting process

The Asante technique of the *cire-perdue* metal casting process employed in the study started by making wax models of all the 186 drawings that appeared on the SDDIG that were used for the collection of data.

4.12.1. *The wax modelling*

Pieces of bees wax were purchased and used to model the 186 drawings in three dimensional figures. The wax models were kept in a basin filled with water to prevent them from melting under warm conditions until coating began. Figures 5 to 10 show pieces of wax, researcher modelling the models, and the finishing of the modelling.



Fig. 5. Cakes of Bees-wax.
wax.
Source: Field study (2016).



Fig. 6. Researcher warming pieces of
wax.
Source: Field study (2016).



Fig. 7. Researcher modelling with wax.
Source: Field study (2016).



Fig. 8. Wax treads.

Source: Field study (2016).



Fig. 9. Researcher finishing wax modelling.

Source: Field study (2016).



Fig. 10. Finishing wax modelling.

Source: Field study (2016).

After all the 186 wax models had been made, 20 of them were selected and photographs taken as presented in Figures 11, 12, 13, and 14.



Fig. 11: Selected wax models of electrical / electronic items and accessories.

Source: Field study (2016).

Construction equipment / items	Travelling equipment / items/ accessories
 <p data-bbox="507 958 651 994">Caterpillar</p>	 <p data-bbox="1002 958 1278 994">Navigators' compass</p>
 <p data-bbox="507 1357 651 1393">Road roller</p>	 <p data-bbox="1098 1357 1182 1393">Lorry</p>
 <p data-bbox="528 1805 632 1841">Helmet</p>	 <p data-bbox="1015 1805 1270 1841">Automobile battery</p>

Fig. 12: Selected wax models of construction equipment and travelling equipment.

Source: Field study (2016).



Domestic, and hospital items	Other items
 <p data-bbox="576 1055 635 1086">Clip</p>	 <p data-bbox="1077 1055 1230 1086">Microscope</p>
 <p data-bbox="549 1444 660 1476">Matches</p>	 <p data-bbox="1102 1444 1206 1476">Syringe</p>

Fig. 13: Selected wax models of domestic and hospital items.

Source: Field study (2016).



Fig. 14: Selected wax models of other items.

Source: Field study (2016).

4.12.2. *Coating the wax models*

A slurry (mixture of ground charcoal and dry clay, and water) was prepared. The mixture was used to coat all the wax models and allowed to dry under normal room temperature for 24 hours after the which the process was repeated and allowed to dry for another 24 hours under room temperature. After drying palm-nut fibre was mixed with wet clay and used to encase the entire models leaving only the top of the wax strip and left to dry in the sun. The moulds

were heated in the furnace afterwards until the wax models melted out leaving the cavities as moulds for the casting. The process is supported by the description made by Kyerematen (1964), Fox (1988), Asare (1981), and Untracht (1984) that modelling for *cire-perdu* casting, the wax model is encased with refractory material and left to dry after which it is heated for the liquid wax to flow out to create a cavity in the mould. Figures 15, 16, 17, 18 and 19 show mixing of the slurry, coating the wax models and the coated models.



Fig. 15. Mixing the slurry.
Source: Field study (2017).



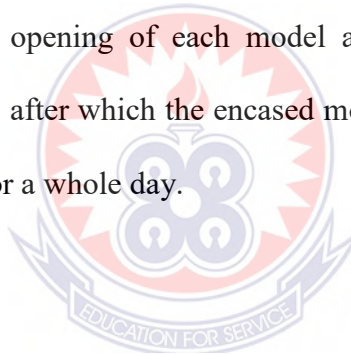
Fig. 16 & 17: Coating the wax models.
Source: Field study (2017).



Fig. 18 & 19: Coated wax models.
Source: Field study (2017).

4.12.3. *Making the moulds*

The coated wax models were embedded in a mixture of clay and palm fibre leaving a small opening of each model and allowed to dry under room temperature for 2 days after which the encased models that served as moulds were left in the sun to dry for a whole day.



4.12.4. *De-waxing the moulds*

The moulds were fired in the furnace for more than thirty minutes at a temperature of more than a 100° C for the wax to be melted out through the opening thereby, creating a mould cavity in each mould as an exact replica of its wax model. Figures 20 to 23 show the dewaxed moulds and embedding of brass pieces on the mould.



Fig. 20. & 21: Researcher and goldweight caster dewaxing moulds.

Source: Field study (2017).



Fig. 22. & 23: Embedding pieces of brass and mould.

Source: Field study (2017).

4.12.5. *Firing the encased brass pieces in moulds*

Brass is an alloy of copper and zinc with a wide range of engineering uses and melts at the temperature of 954° C (Wright, 2008). The local mud furnace used was loaded with charcoal and fired to the temperature of about 1000° C. This took about 40 minutes and at this temperature the flames turned bluish indicating

the melting of brass in the moulds. Figures 24 and 25 show the fired moulds in the furnace.



Fig. 24. & 25: Fired moulds in the furnace.

Source: Field study (2017).

4.12.6. *Removing moulds from the furnace*

Using a pair of tongs the moulds were removed from the furnace and allowed to cool for about an hour. This was in relation to the process described by Phillips (2010), Mcleod (1981), Gidal (1971,) Rattray (1927), and Okyere-Boateng (2003) that the Krofofrom technique involves the embedding together of both the brass and mould and placed in the furnace for firing until the brass melts to fill the mould cavity.

4.12.7. *Breaking the moulds to retrieve the casting*

Each of the moulds was broken after cooling to retrieve the casting. This was carefully carried out to avoid damage of configuration of the sculpture. The

entire castings were cleaned by the use of metal brush and were assembled for inspection by both the researcher and the metal casters. The breaking of moulds to retrieve casting, and assemblage of the entire work are explained in figures 26, 27 and 28.



Fig. 26. & 27: Researcher breaking moulds to retrieve casting.
Source: Field study (2017).

4.13. A flow diagram of the *cire-perdue* process.

Presenting a flow diagram of the Asante *cire-perdue* brass casting technique; Figure 28 explains the process.

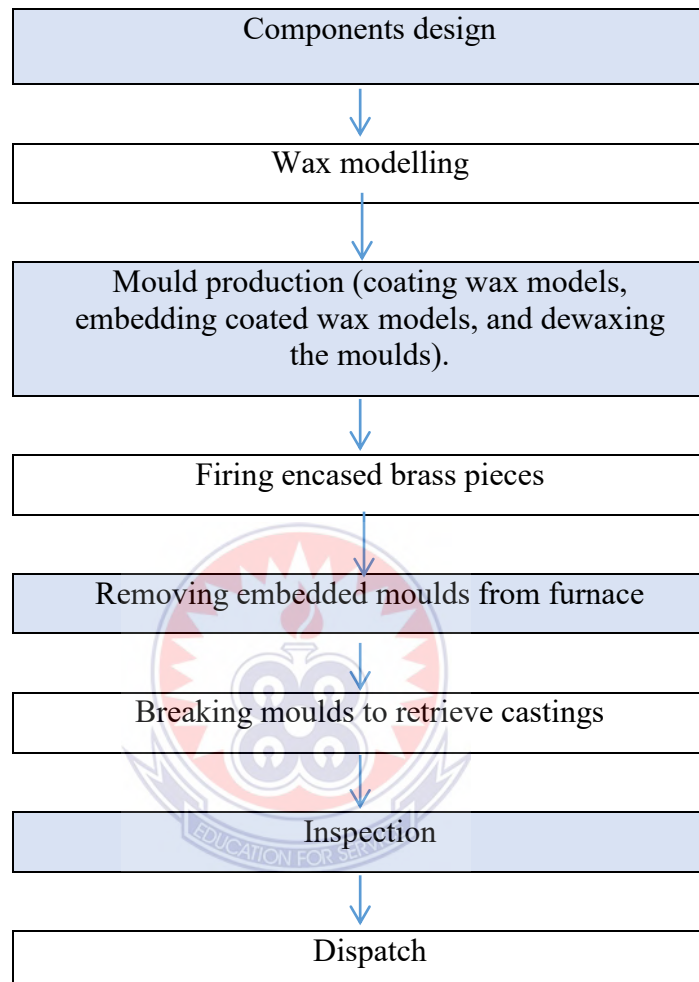


Figure 28: A flow diagram of the Asante *cire-perdue* brass casting technique.

Source: Field study (2017).

4.14. The assembled contemporary goldweights

The outcome of the entire work was one hundred and eighty-six (186) brass castings of miniature sculptures of varied length, width and height, all between 3 millimetres and 20 centimetres. These cast objects of contemporary

goldweights based on the created contemporary proverbs are exhibited in Figure 29.



Fig. 29: Sections of the assembled castings of contemporary goldweights.

Source: Field study (2017).

4.15. Themes used for the casting of 186 contemporary goldweights.

The 186 goldweights were cast based on 17 themes. These are; Domestic items, electrical and electronic gadgets and accessories, kitchenware, hospital gadgets, construction equipment and tools, travelling equipment and accessories, body adornments and protective items, communication gadgets, agricultural equipment and implements, educational items, recreational items, sports gadgets, office equipment, musical instruments, edible items, major contemporary events, and other items.

All the 186 contemporary goldweights cast in brass are displayed in the appendix C of this dissertation.

4.16. Selected castings of classical goldweights and the contemporary goldweights.

Six selected classical proverbial goldweights and thirty two selected castings of the contemporary goldweights produced from the contemporary proverbs are displayed in Figures 30 to 38.



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<p>A male figure climbing a tree with a bottle hung on his chest. Proverb: <i>Wisdom is not found in the head of one person.</i></p>	<p>A male figure smoking while carrying a pot of gunpowder on the head. Proverb: <i>We do smoke even if we carry the gun-powder.</i></p>	<p>A male figure holding a bowl for water. Proverb: <i>We do not wait until after rainfall before collecting water.</i></p>
 <p>A male figure with both hands on the head. Proverb: <i>Do not ask me how well my home is doing when my both hands are on my head.</i></p>	 <p>A male figure gong-gong beater. Proverb: <i>If the gong-gong makes a good sound; it is from the better regulation by the ampit.</i></p>	 <p>A figure depicting a big tree. Proverb: <i>If a single tree faces the gale it snaps.</i></p>

Fig. 30: Six selected classical proverbial goldweights and their attached proverbs.

Sources: Okyere-Boateng (2003).

Domestic items	Electrical and electronic gadgets
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		and accessories	
			
<p>Ironing board</p>		<p>Satellite dish</p>	
			
<p>Wardrobe</p>		<p>Electric voltage transformer</p>	

Fig. 31: Selected castings of the contemporary goldweights 1.

Source: Field study (2016).

Kitchenware	Hospital gadgets
 <p data-bbox="544 927 715 954">Food blender</p>	 <p data-bbox="1086 927 1246 954">Wheel chair</p>
 <p data-bbox="488 1650 770 1686">Disposable food bowl</p>	 <p data-bbox="1086 1650 1246 1686">Stethoscope</p>

Fig. 32: Selected castings of the contemporary goldweights 2.

Source: Field study (2016).

Construction equipment, materials and tools	Travelling equipment and accessories
 <p data-bbox="544 981 694 1012">Road roller</p>	 <p data-bbox="1086 981 1225 1012">Aeroplane</p>
 <p data-bbox="528 1704 710 1736">Louvre blades</p>	 <p data-bbox="1102 1704 1204 1736">Moped</p>

Fig. 33: Selected castings of the contemporary goldweights 3.

Source: Field study (2016).

Body adornments	Agricultural equipment
 <p data-bbox="512 945 694 981">Wedding ring</p>	 <p data-bbox="1098 945 1197 981">Tractor</p>
 <p data-bbox="523 1715 683 1753">Wrist watch</p>	 <p data-bbox="1082 1715 1212 1753">Chainsaw</p>

Fig. 34: Selected castings of the contemporary goldweights 4.

Source: Field study (2016).

Educational items	Recreational items
 <p data-bbox="544 913 624 947">Pencil</p>	 <p data-bbox="1070 913 1182 947">Unicycle</p>
 <p data-bbox="512 1673 655 1706">Calculator</p>	 <p data-bbox="995 1673 1262 1706">Casino slot machine</p>

Fig. 35: Selected castings of the contemporary goldweights 5.

Source: Field study (2016).

Sports equipment / items	Office equipment
 <p data-bbox="534 918 670 952">World cup</p>	 <p data-bbox="1061 918 1220 952">Swivel chair</p>
 <p data-bbox="550 1657 654 1691">Racket</p>	 <p data-bbox="1037 1657 1252 1691">Paper perforator</p>

Fig. 36: Selected castings of the contemporary goldweights 6.

Source: Field study (2016).

Musical instruments	Edible items
 <p data-bbox="576 987 654 1019">Piano</p>	 <p data-bbox="1109 976 1262 1008">Tinned fish</p>
 <p data-bbox="544 1729 691 1760">Saxophone</p>	 <p data-bbox="1094 1729 1273 1760">Bottled water</p>

Fig. 37: Selected castings of the contemporary goldweights 7.

Source: Field study (2016).

Other items	Major contemporary events
 <p data-bbox="512 936 703 969">Fuel dispenser</p>	 <p data-bbox="1007 936 1302 969">Returnee from Nigeria</p>
 <p data-bbox="501 1686 719 1722">Sewing machine</p>	 <p data-bbox="1062 1671 1241 1704"><i>Azonto</i> dance</p>

Fig. 38: Selected castings of the contemporary goldweights 8.

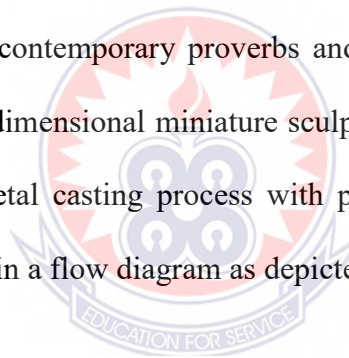
Source: Field study (2016).

4.17. Summary of discussions

Presenting results of data collected from 30 participants; the data response level was a 100 %. Data were gathered from the field survey, and secondary sources (including books and online) and in all 216 contemporary proverbs were gathered out of which 124 came from the proverb composers, 15 from the researcher, and 77 from secondary sources.

The Asante Twi language was mainly used in communicating with the respondents as well as the Field Assistants during the field survey and Focus Group Discussions after which the researcher translated the written records into the English language.

All the 186 contemporary proverbs and events were used to cast brass goldweights of three-dimensional miniature sculptures using the Asante technique of the *cire-perdue* metal casting process with photographs taken to explain the entire casting process in a flow diagram as depicted in Figure 28.



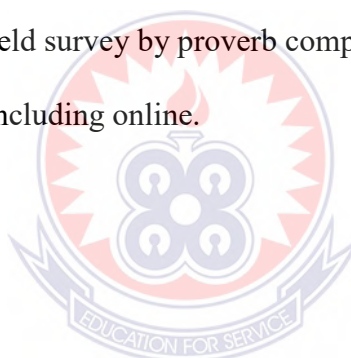
CHAPTER FIVE

ANALYSIS AND DISCUSSION OF FINDINGS

5.1. Introduction

This chapter presents analysis, discussion, and interpretation of results of the study on reinvigorating Asante *cire-perdue* casting technique through production of goldweights on contemporary Asante proverbs. The study is an artistic research that used an art-based research method. The qualitative research approach was used as the methodology for gathering data as well as the employment of descriptive and narrative research design in the methodology.

In all 216 contemporary proverbs were used in the study out of which 124 were gathered from the field survey by proverb composers, 15 by the researcher, and 77 from secondary sources including online.



5.2. Exploratory study

Exploratory study aims at gaining insights and familiarity into a research problem that has few or no earlier studies to refer to. This kind of study often attempts to establish certain facts relating to a phenomenon, and seeks to establish preliminary information about an object (Agyedu, Donkor, & Obeng, 2013; Obeng, 2013). The study on Asante technique of *cire-perdue* casting, contemporary proverbs and contemporary goldweights therefore; needed a meticulous study from the survey to provide reliable information for future research. The study explored the creation of statements in the Asante language containing words of wisdom that teach, warn, advise, and direct individuals in the entire community as acceptable contemporary proverbs, and updates of existing Asante proverbs.

Each of the 28 respondents was allowed to read and answer each of the open-ended questions in the interview phase 1 and all the answers were collated for analysis. The results were used to support identification of contemporary objects, and creation of proverbs for the study. In the interview phase 2, the two proverb creators were made to understand the functions and uses of the objects based on which they composed the proverbs in Asante to be written down. The exploration continued during the FGD where each proverb created was analysed and either accepted or rejected.

5.3. Positionality of researcher in the study

There's no enunciation without positionality. You have to position yourself somewhere in order to say anything at all. Positionality represents a space in which objectivism and subjectivism meet; the two exist in a "dialectic relationship" (Hall, 1990 & Freire, 2000, as cited in Bourke 2014). To achieve pure objectivism is a naive quest, and we can never truly divorce ourselves of subjectivity. We can strive to remain objective, but must be ever mindful of our subjectivities. Such is positionality. We have to acknowledge who we are as individuals, and as members of groups, and as resting in and moving within social positions (Bourke, 2014).

The researcher, a Metal Products Designer in an earlier study (Metal casting in Asante) researched on *Traditional metal casting processes in Asante* and used the *cire-perdue* (Asante technique) as one of the processes to cast goldweights based on existing proverbs. Bourke (2014) posited that, the nature of qualitative research sets the researcher as the data collection instrument. It is reasonable to expect that the researcher's beliefs, political stance, cultural background (gender, class, socio-economic status, educational background) are important variables that may affect the

research process. Just as the respondents' experiences are framed in socio-cultural contexts, so too are those of the researcher.

The focus of this study was reinvigoration of Asante *cire-perdue* casting technique in the production of goldweights to represent contemporary Asante proverbs and this guided in formulating the study topic, setting objectives and research questions, and methodology used to collect data, and casting the goldweights. The researcher designed an interview guide known as Self Designed Drawing Interview Guide (SDDIG) as well as an open ended interview guide in the collection of qualitative data that provided participants with the opportunity to tell their stories and to encourage their own voices to come through in the data collection. Researcher fully participated in the FGD, wax modelling and casting of the 186 goldweights during which he introduced the weighing of wax models on the weighing scale before modelling, and application of a mathematical equation to determine the weight of metal to be used for a particular casting based on the specific gravity of brass (8.5) and weight of the wax model.

5.4. Analysis and discussion

Data were analysed thematically by examining all the responses to identify their relationships. The interpretation of analysis of the data results were based on, discussion of thematic areas, and statistical presentation on composition of brass alloys and their colouring properties to be able to draw meaningful conclusions. Dey (1993) indicated that data analysis is a process of resolving data into its constituent components to reveal its characteristic elements and structure, while Agyedu, Donkor, and Obeng (2013) explained data analysis as a component of research that is necessary to facilitate the

interpretation of the results and the drawing of conclusions. It is to make meaning out of the data collected vis-à-vis the research problem at hand by involving editing, categorisation, tabulation, and statistical analysis. In a similar vein Lyons and Doueck (2010) reported that, data management in qualitative research is driven by the research question, and there is the need for consistency of research philosophy and methodology, the need to clearly identify the data analysis methods and coding procedures, as well as ensuring their consistency with the study philosophy and objectives. Dawson (2002) asserted that, the researcher needs to judge the value of the data, especially that which may come from dubious sources. There is the need to interpret the data so that the researcher and others can gain an understanding of what is going on. She further reiterated that some software could retrieve text, some will analyse text and some will help build theory; although, a computer can undertake these mechanical processes, it cannot think about, judge, or interpret qualitative data. Lyons and Doueck (2010) suggested that, regardless of the philosophical or methodological approach, data must be collected and rendered amenable to analysis. Data analysis involves the scrutiny, synthesis, and interpretation of these word combinations. The words may be derived from interviews, focus groups, textual materials, audio, video, observations, poems, or narrative. They may be based on pictures, paintings, sculptures, or other works of art, but ultimately the data are words that are intended to reflect the totality of an experience in context. Consequently, the researcher must provide both descriptions of events and contextual interpretations of these events.

To ensure objective, valid, and reliable findings, the following information gathering instruments were used; self-designed drawing interview guide, interview, focus group discussion, observation, field note-taking, and photography. The information gathered from respondents was considered as primary data, and only data

from those sources confirmed, analysed, synthesised, and evaluated by the researcher were accepted for treatment in this study. Data from documentary sources; books, manuscripts, unpublished theses, magazines, and internet sources were considered secondary data for the research. Obeng (2013) reported that, researchers using qualitative approach view the phenomena under investigation to be as more personal and softer. They use methods such as personal accounts, unstructured interviews and participant observation to gain an understanding of the underlying reasons and motivations for people's attitudes, preferences or behaviours. With this approach, the emphasis is more on generating hypothesis from the data collection rather than testing a hypothesis.

The first part of interview guide phase one presented the personal data on respondents including gender and age range, while the second part presented the responses based on research questions of the research. The final part of the interview guide phase one dwelt on what other relevant information the respondent had about brass casting of goldweights that interpret contemporary proverbs in Ghana.

The first part of interview guide phase two presented the personal data on participants including gender, age group, occupation, and experience in proverb creation in years, while the second part examined their responses on the proverb creation from the interviews and Focus Group Discussion. The data indicated that all the 30 research participants were between the ages of 20 and 70. While 26 were males, four were females. One of the four females was an Art Educator while three were students. This indicates that no female was identified as proverb creator, traditional ruler, or metal caster. It was however expounded during the FGD that, although, there are females involved in traditional leadership; they are made to follow the Queenmothers with the task of mostly performing female functions. This was supported

by the indigenous proverb that; *if a woman buys a gun, it is kept in a man's bedroom*. Since there are currently, increasing numbers of women in cultural studies, it would be possible for women to become judges of proverb-saying radio programmes and consequently becoming proverb creators.

The research questions based on which the interview guides were prepared are:

1. What constitutes indigenous and contemporary proverbs in Asante and in what ways could Asante proverb creators be identified?
2. What is the practicability of using the proverb creators to compose contemporary proverbs?
3. What is the possibility of using the Asante *cire-perdue* technique in the production of the goldweights from the created contemporary proverbs?
4. What are the other creative art areas that the created proverbs could be represented?
5. What relevance do the goldweights have on the created proverbs?

The results of the study included the composition of two hundred and sixteen contemporary proverbs based on one hundred and eighty six (186) contemporary items and contemporary Ghanaian events. Out of the total of 216 contemporary proverbs, 124 were gathered from the field survey, 15 composed by the researcher, whereas 77 were gathered from secondary sources. The researcher upon reading a number of publications on proverbs, and goldweight production became equipped with some level of skills to compose some contemporary proverbs which are philosophical and are relative to indigenous Asante proverbs. For instance, proverb 39 that says; *the modem provides the internet to search for everything but if the modem gets missing, the internet cannot search for it* is relative to the indigenous proverb; *the healer does not*

heal himself. This also indicates the practicability of researchers composing contemporary proverbs based on contemporary objects, and events.

The results, however, indicated that all the contemporary proverbs based on the 16 contemporary Ghanaian events were gathered from the field survey.

Objective one explained indigenous Asante proverbs as short sayings containing wisdom, used in everyday conversation and short as they may be; convey messages which could be translated into many sentences. An indigenous Asante proverb is believed to be a measure to how deep somebody is knowledgeable and eloquent in a particular Akan language; it has been difficult to know the source or the sole authorship of Asante proverbs since they have been transmitted on to this day from antiquity through generations. They have been recorded through oral tradition and memory. During a usual Ghanaian conversation in the *Twi* language citing indigenous proverbs, speakers precede the proverb with *mpaninfo kaa asem bi se*, meaning ‘our elders made mention that’, to indicate that there is no known creator of the particular Ghanaian indigenous proverb that person wanted to quote.

A proverb is part of oral literature used to ennoble every Ghanaian language especially the Asante language that is spoken in Asante and in most parts of the Akan societies. Contemporary proverbs are, therefore, bound to be created based on contemporary items and events to increase the number of already existing classical proverbs known in Ghana, and could be dated also based on the manufacturing periods of the identified contemporary items as well as the contemporary events. This shows disagreement with a statement by Amate (2011) from her personal communication with an elder of Asante that, legends do not name creators of proverbs, although, proverbs are frequently included in these legends; even in the contemporary society it is only

rare that a proverb can be seen to be in the making. It was gathered that indigenous or classical Akan proverbs contain complete statement of Akan words whereas most Akan contemporary proverbs contain a mixture of Akan and English words. This is so because the contemporary items used for the composition have no local names, however; an item like 'helmet' could be translated as *dadeε kyε* meaning 'metal cap'.

It was gathered that indigenous Asante proverbs contain both literal and philosophical meanings. While the literal meanings are practical and observational, philosophical meanings are analytical or ideological.

Objective one also identified 17 proverb creators of whom two were picked for the study are popular in the communities and are known through traditional chiefs, and radio programmes. It was also gathered that, proverb creators could be identified through public speaking during durbars, funerals, and major public programmes. It was also confirmed that, nine out of the seventeen contemporary proverb creators identified in the study area; have participated in radio programmes on proverb competitions organised by especially Garden City Radio from 1992; others were known through traditional chiefs and elders; public speaking during naming ceremonies, marriages, funerals, festivals and other public functions; and data collection and research activities whereby through purposive sampling of contemporary Asante proverb creators, others are identified by the snowball sampling. The seventeen contemporary proverb creators identified are: Agyei Peprah also known as Akokora Nana or Nana Agyei Sikapa who currently works with Peace F. M. and who became a winner of 'Akobalm Ēbhene' competition organised by Garden City Radio in 1992 and 1993 after which he became a News Reader for the Radio Station, Nana Yaw Barimah of Appiadu who had been a runner-up to Nana Agyei Sikapa and has been a personal assistant to Nana Odeefuo

Amoaye of Appiadu, Ɔkyeame Kwame Nsiah of Ayeduase who has been involved in a number of research activities and is therefore, known from secondary sources as indicated by Ampem (1998), Ɔkyeame Osei Asibey who is currently the Chief Linguist of Appiadu, Ɔpanin Kyei Gyamfi of Dominase who is a well-known traditional elder, Ɔkyeame Takyi who is a traditional leader of Apromase, and Nana Antwi Boasiako who is the Chief of Deduako. The rest who are well known in public speaking are Sukɔnoma Akwasi Gare of Appiadu, Emmanuel Oduro of Kwamo, Peter Faif of Fankyenebra, Omane Badu of Edweso, Kwabena Osei of Bantama, Nana Akwasi Osei of Dwease, Nana Dwumfuor of Kurofofrom, and Akwadaa Nyame who usually participated in proverb competitions. Other public speakers who have been News Readers for radio stations are Agya Kennedy, formerly of Angel F. M., and Ɔkyeame Takyi Mensah who worked with Nhyira F. M.

It was noted from the identified proverbs that only males were involved in proverb creation as well as traditional activities from which proverbs could emanate. It was noted from the FGD that although some women are very fluent in the Twi Language and could use proverbs while speaking; they are usually not permitted to publicly use proverbs that would demand interpretation by traditional elders.

Various information gathered on objective two were based on the practicability of using the identified proverb creators to compose contemporary proverbs based on the contemporary items and events identified for the research. The two proverb creators were selected from this group and were used to compose the contemporary proverbs based on the contemporary items and events.

The composed proverbs were written down in the Asante Twi Language and later translated into the English Language by the researcher. The created proverbs were

discussed with elders of the communities who supervise proverb competitions to confirm them as contemporary proverbs in an FGD.

It was gathered that, classical development of Asante proverbs is like the old Ghanaian cultural music including *Adowa* and *Ashoa* that existed from the 13th Century that gave way to a form of music in Ghana in the 20th Century known as *Highlife* music. *Highlife* music is also giving way to the present contemporary music in Ghana known as *Hiplife* music which is played and enjoyed in private homes and in public places at all times by both young and old. *Adowa* and *Ashoa* have now become music of classical times, whereas indigenous Asante proverbs have now been described as classical Asante proverbs giving way to contemporary Asante proverbs.

The information gathered on objective three provided the difference between the Asante *cire-perdue* metal casting technique and the worldwide process. While the popular process involves the pouring of molten brass into an open mould through a sprue, the Asante technique involves molten brass flowing into a closed mould when turned upside down. The two methods are supported by the assertions by Asare (1981), and Hof and Lesslauer (1994) that, “the refractory material is allowed to dry after which the whole investment is heated to melt out the wax through the uncovered area that creates a passage for molten metal to be poured through into the mould cavity”; and “the moulds are fired until the metal melts and using a pair of tongs, the mould is picked and turned over for molten metal to flow into the mould cavity respectively.

It was gathered that, master casters in Asante do not measure the amount of brass to be used for each wax model and could sometimes produce incomplete or overfilled works. Eight wax models were used to prepare moulds for an experiment. The weight of brass to be used in each casting was considered. Sarpong (1998) stated

that, the weight of metal to be used in *cire-perdue* process is equal to the weight of the wax model multiplied by the specific gravity of the metal. This was in the equation:

$$b = msg$$

Where *b* is weight of the metal needed for the casting

m is the weight of the wax model

sg is the specific gravity of the metal.

Brass has a specific gravity of 8.5 and average melting temperature of 954° C. For instance; a wax model weighed 60 grammes required 510 grammes of brass for the casting. This was obtained from the equation:

$$60 \text{ g} \times 8.5 = 510 \text{ grammes.}$$

The master caster came to understand the use of the equation; however, he could imagine the amount of brass that could fill any mould cavity when melted, however, that did not work perfectly as some were less while others were overfilled.

The method used for the casting of the contemporary goldweights was the Asante technique of the lost-wax process. Both the metal (brass) to be used and the mould were embedded in a mixture of clay and fibre, and after firing the mould was removed for the fire and turned upside down to cool after which the mould was broken to retrieve the casting. By employing the method in the equation, the moulds were filled without the sprues being overfilled.

It was also gathered that, the Asante technique used was usually for the casting of miniature sculptures. The casters do not care about the use of protective

covers for eyes, nostrils, hands, chest and even legs while they work around the firing furnace which is built in the open with the use of charcoal powered by the electric blower.

The study found out that brass has a green-gold colour and that dominated all the pieces used in casting the contemporary goldweight. Because the surface of most of the brass pieces scavenged had tarnished, it was difficult identifying gilding metals among them. The colour of the finished works, therefore, revealed that brass of 70 % copper and 30 % zinc dominated.

Photographs were taken during the casting process from wax modelling through to casting and the assembled pieces are displayed in Figure 29. The technique employed yielded good results of the brass casting.

Brass was used in the production of the contemporary goldweights; however, because the metal pieces were already tarnished the real colour could not be identified to differentiate between brass and gilding metal. The composition and colours of three types of brass alloys are shown in Tables 25 and 26.

Table 25: Composition of three types of brass alloys

s/n	UNS Number	Common name	Percentage of copper content	Percentage of zinc content	Total
1	C 22000	Gilding metal	90	10	100
2	C 23000	Gilding metal	85	15	100
3	C 26000	Brass	70	30	100

Source: Austral Wright, 2008

Table 26: Colouring of three types of brass alloys

S/n	UNS number	Common name	Percentage of copper	Percentage of zinc	Colour
1	C 22000	Gilding metal	95	5	Bronze-gold
2	C 23000	Gilding metal	85	15	Tan-gold
3	C 26000	Brass	70	30	Green-gold

Source: Austral Wright (2008).

It was observed from the photography of the casting that apart from the sixteen (16) contemporary weights representing the sixteen contemporary events depicting both natural and artificial objects, all the 170 contemporary weights or castings represented man-made objects which were made from the contemporary proverb composition. For example; in a contemporary event, the goldweight on Women Soccer depicted the figure of a female footballer with a football on a foot; while the female figure represents nature, the football is artificial. This attests to Phillips' (1996) assertion that, goldweights including domestic furniture, items of culinary equipment, weapons and tools, implements for use in agriculture and

hunting, and an extra ordinary range of objects connected with the paraphernalia of chieftaincy, provide unique evidence of the range of artifacts used by the Akan in past centuries. Phillips' (1996), although, directed his explanation towards domestic equipment, working tools, and weapons; most goldweights of the Asante represented nature. As presented by Sutherland and Rattray (1969), the weights commonly known as Asante weights are cast from metal by the *cire-perdue* process and often designed to represent some object; man, woman, animal, hunting-belt, and also pumpkin.

Information gathered on objective four on other areas that the proverbs could be represented indicated artistic impressions including traditional *Adinkra* symbols, textile motifs, wall designs, linguists' staff, and body adornments for designing of textiles, metal products, architecture, and ceramics.

Members of the FGD were in agreement with the respondents that, the visual representation to the proverbs is usually identified to be in textile motifs, symbols including *Adinkra*, and traditional drawings on walls, body adornments, and Linguist's staff. Most traditional symbols used as textile motifs interpret proverbs, for instance, a textile motif showing a *key* represent the proverb *etire nni safoa* meaning 'the head has no key' as literal meaning. It is further explained philosophically as 'nobody knows the plan in another man's mind'. Proverbs and traditional symbolism, therefore, have a close relationship in the values of the Ghanaian people. This corroborates the statement made by Gyekye (1996) that, the idea of a Supreme God was certainly not imported into Africa. Symbols on the ancient gold-dust weights and on other forms of art and references to the existence and character of a Supreme Being in myths, proverbs, and the drum language attest to the antiquity of the African idea of God.

It was also observed that other interpretations that could be derived from the contemporary proverbs produced in goldweights are motifs for traditional stools, chiefs' headgears, and curios.

It was also gathered from survey on areas where the visual representations or artistic impressions are used as; wood works, ceramics, metal works, cement works, textile and fashion designing, leather works, canvas and paper designing. Members of the FGD agreed to all the areas aforementioned and stated that these interpretations are used in all walks of life of the Ghanaian and almost everywhere in the environment. This is in consonance with an indication by Lange (2012) that, *Dagbon* proverbs are the reflection of the elders on the experiences on life and the environment which is predominantly a moral one. Similarly, Kyeremateng (2000), Appiah, and Appiah (2002), Kwakye (2013), and Dede (2015) noted that Ghanaian proverbs give advice, warning and encouragement, and express traditional thought on life, wisdom and superstition.

It was also found out that, there is imaginative as well as creative power in the created contemporary proverbs as they were all interpreted in goldweights as visual representation.

With information from objective five on relevance of the goldweights on the contemporary proverbs, the following were identified; historical record keeping, documentation, repository of Asante knowledge on wisdom in proverbs, and acceptance of oral tradition as a source of documented history. According to Gyanfosu, Sey, Korsah, Yayoh, Agyeman, and Obeng. (2015), through oral tradition, there is now what is known as written history. This is supported by a statement made by Labi and Boachie-Ansah (2008) that, the figurative goldweights play a role which was perhaps

not envisaged by their makers; they have ‘documented’ aspects of the material culture of the past for posterity. Shields, smoking pipes, musical instruments, treasure chests, hammers, tongs, anvils, hoes, boats, drums, bellows, state swords, gongs, mugs, and whisks and many items of material culture are depicted in goldweights. Some of these items are no longer in use today, or differ in style from those in use in the ethnographic present. Where these items exist in the ethnographic present, the weights provide data to support cultural continuity.

Goldweights as preservation of culture, Labi and Boachie-Ansah (2008) again stated that, much of the everyday lifestyle of the eighteenth and nineteenth century Akan was preserved in the goldweight as an art form which in real life was constructed of perishable materials and was therefore, otherwise, lost to the archaeologist. The relevance of the cast goldweights is the preservation of the Asante culture of wisdom in proverbs. These miniature sculptures of brass depict the main nouns in the created contemporary proverbs. They are the visual representation of these proverbs that could serve as a resource for museums in Ghana.

While characteristics of culture indicate, ‘it is dynamic and keeps on changing’, culture is still cumulative because new elements are added to the existing ones including new discoveries and innovations. The old elements are not discarded but they exist side by side with the new ones that are still useful to the society (Gyanfosu, Sey, Korsah, Yayoh, Agyeman, & Obeng, 2011).

The motifs from the produced goldweights are relevant for textile designing, the cast objects as curios, the goldweights as museum resource, and all enhancing provision of philosophical values to users.

All members of the FGD were in agreement that this project on brass casting of goldweights that represent contemporary proverbs in Ghana is a step of reviving goldweight production and enhancing job creation in Ghana and that should encourage the youth to participate instead of joining the unemployed youth associations.

5.4.1. *Update of existing proverbs*

The analysis for the proverb creation was done during the FGD where the selected elders treated each created proverbs with critique, and corrections effected to make them sound and acceptable. Contemporary proverbs were created as updates for already existing proverbs as shown in figure 39. As stated by Walter (1996), "Don't store all your data on one disk" is a contemporary update of the traditional proverb "Don't put all your eggs in one basket." Such traditional proverbs, meant to convey cultural knowledge and wisdom, are often closely tied to a culture's values and everyday experience. As a result, their meanings are not always readily apparent to us today. They first search for proverbs from around the world and select several they like, and then update them to be more contemporary, and finally, they write new proverbs of their own.

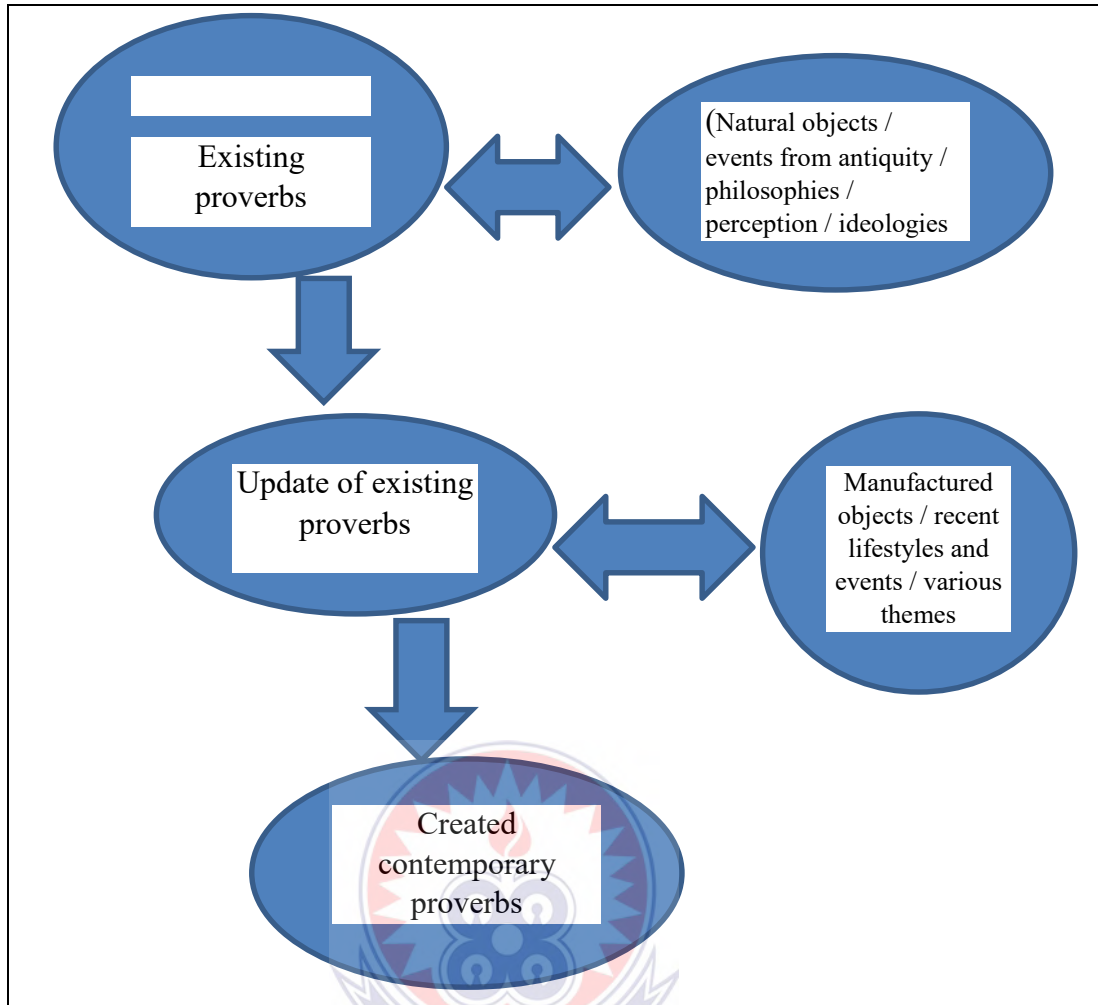


Fig. 39: Creation of contemporary proverbs,

Source: Field study (2016).

It was found out from the FGD that, some of the created proverbs were metaphoric, and simile. They were all, however, mixed with English nouns. The metaphor theory suggests that, a word or phrase could be used in an imaginative way to describe somebody or something else in order to show that the two things have the same qualities and to make the description more powerful. The theory states that, “x” is “y” (Underwood, n. d.). This theory was applicable in the creation of contemporary proverbs. An example of a created contemporary proverb from this theory is proverb number 156; *Abrabɔ ahyeases ne stroller na enam, na n’awies nso ye wheelchair.*

Meaning, complete life begins with a stroller and but its end is a wheelchair. (Field survey).

The FGD also indicated a close relationship of some of the created proverbs to the theory of figurative speech (simile)

The theory proposes that, somebody is like another, but not something is another thing as it is in a metaphor; a simile, therefore, could become a metaphor if the word “like” is removed from a phrase (Walaszewska, 2013). This theory was applicable to the creation of contemporary proverbs with the explanation that, “x” is like “y”. An example is proverb number 72; *Abrabɔ te se **toilet roll**; erekɔ awie no na ne ho reyɛ ha.* Meaning, life is like toilet roll; the closer you get to the end, the faster it goes.

The discussion concluded that, the created proverbs contained two mixed languages, thus, a full statement containing both English and Asante Twi with the English Language mostly used for the main nouns in the contemporary proverbs. An example is proverb number 107; *Se ewiase nye hu a, anka ntɔkwa nsi obi manso mma ɔman foforɔ mu nnipa nhye **gas masks**,* meaning if we are not living in a horrible world, mere quarrel would not break in one country for people from another country to protect their lives with gas masks. This was in line with the theory of mixed languages.

The theory of mixed languages states that a statement could have two component parts; one part forming verb phrases, whereas the other part forming the noun phrases to become an “intertwine” (Bakker, 2017). The theory of mixed languages was, therefore, applicable to the creation of all the contemporary proverbs in the study.

Summary of discussions

Results gathered from the data collected from the field survey on *Reinvigorating Asante cire-perdue technique in casting goldweights for contemporary Asante proverbs* were based on five main research questions including:

1. What constitutes indigenous and contemporary proverbs in Asante and in what ways could Asante proverb creators be identified?
2. What is the practicability of using the proverb creators to compose contemporary proverbs?
3. What is the possibility of using the Asante *cire-pedue* technique in the production of goldweights from the contemporary proverbs?
4. What are the other creative art areas that the created proverbs could be represented?
5. What relevance do the goldweights have on the created proverbs?

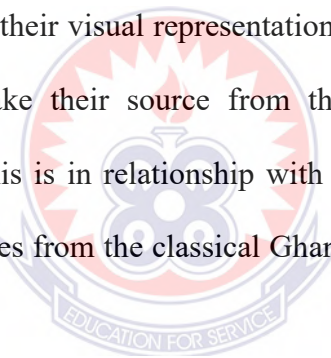
A convenient interpretation of the results was presented using both statistical and thematic analyses.

The results of the study included the composition of 216 contemporary proverbs based on one hundred and eighty six (186) contemporary items and contemporary Ghanaian events. Out of the total of 216 contemporary proverbs, 124 were gathered from the field survey, 15 composed by the researcher, whereas 77 were gathered from secondary sources.

Results of the data include purposive sampling of two contemporary proverb creators and 28 selected participants for the field study. Names of other fifteen contemporary proverb creators in Asante were also gathered. All the created

contemporary proverbs were presented for a Focus Group Discussion (FGD). The study identified the difference between the lost-wax method which is practised worldwide and the Asante *cire-perdue* casting technique which was employed for the casting of 186 contemporary weights. The produced weights were assembled to depict true images of the composed contemporary proverbs. Lastly, the impacts of the relevance of the goldweights on the proverbs were made. These include the relevance of the motifs for textile designing, the cast objects as curios, the goldweights as museum resource, and providing philosophical values to users.

The results revealed that, there is imaginative as well as creative power in the images as all the contemporary goldweights cast interpret the corresponding contemporary proverbs as their visual representations. The Asante contemporary-based proverbial goldweights take their source from the Asante classical or indigenous proverbial goldweights; this is in relationship with the Ghanaian *Highlife* and *Hiplife* music that take their sources from the classical Ghanaian music types known as *Ashoa*, and *Adowa*.

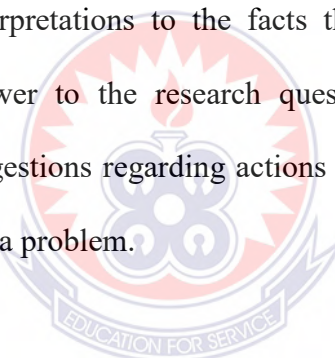


CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1. Introduction

This chapter presents summary of the findings from the survey to highlight the key findings that contribute to the wealth of knowledge, draws conclusions from the main findings, and based on the findings and conclusions; make a number of recommendations that would unearth the relevance of conducting this research, and finally make suggestions for further research. According to Agyedu, Donkor, and Obeng (2013), summary of findings describe how all the individual responses add up to answer a research question or support or reject a hypothesis, the conclusions are the researcher's personal interpretations to the facts the study has uncovered so as to establish a clear-cut answer to the research questions posed by the study, while recommendations are suggestions regarding actions that should be taken as a result of the conclusions to address a problem.

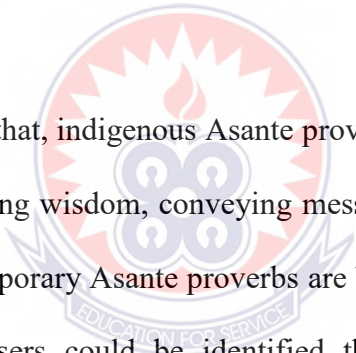


6.2. Summary of findings

The study on *Reinvigorating Asante cire-perdue casting technique through production of goldweights on contemporary Asante proverbs* delved into the casting of 186 pieces of brass miniature sculptures based on 216 Asante contemporary proverbs using the Asante technique of the *cire-perdue* metal casting process.

The artistic research used the qualitative research approach and descriptive and narrative research designs, while data were collected from 30 participants as well as Focud Group Discussions (FGD) based on the following research questions:

1. What constitutes indigenous and contemporary proverbs in Asante and in what ways could Asante proverb creators be identified?
2. What is the practicability of using the proverb creators to compose contemporary proverbs?
3. What is the possibility of using the Asante *cire-pedue* technique in the production of goldweights from the contemporary proverbs?
4. To determine other creative art areas where the created proverbs could be represented.
5. To determine the relevance of the goldweights to the proverbs.



It was gathered that, indigenous Asante proverbs are short sayings in everyday spoken language containing wisdom, conveying messages that could be translated into many sentences. Contemporary Asante proverbs are based on contemporary items, and events and their composers could be identified through Traditional Chiefs, radio programmes on proverb-saying competitions, community elders and family heads, and research activities. Only males are usually involved in proverbs composition as well as traditional activities from which proverbs could emanate.

Indigenous Asante proverbs have no authorship and have existed from antiquity through oral tradition and therefore, cannot be dated. While the main nouns in indigenous proverbs are mostly natural objects; contemporary Asante proverbs depict artificial objects or both natural and manufactured items. For instance, while the indigenous Asante proverb that is translated in English as; *God is the whisker for the tailless animal* has ‘God’ and ‘tailless animal’ as natural names, the contemporary

proverb; *five fingers hold more than two forks* has both natural and artificial objects; ‘fingers’ and ‘fork’ as main nouns. ‘Fork’ as a component of a set of cutlery is an exotic product in Ghana.

Asante indigenous proverbs have both literal and philosophical meanings. While literal meanings are practical and observational or providing the raw meaning, philosophical meanings are analytical, ideological and also conventional; identified by Y. Barimah (personal communication, 2016) as analytical-thinking based interpretation of a Ghanaian proverb. Each of the contemporary proverbs created in the *Twi* Language by the proverb creators were duly translated into the English Language by the researcher.

Development of contemporary Asante proverbs takes its roots from the already existing indigenous Asante proverbs; this is in relation to Ghanaian traditional *highlife* and *hiplife* music that were given way by Ghanaian classical music such as *Ashoa* and *Adowa* that existed in Ethnic Ghana around the Thirteenth Century and are still being performed at public functions. While the popular process of the *cire-perdue* metal casting involves pouring of molten brass into an open mould through a sprue, the Asante technique that was employed involves molten brass flowing into a closed mould when turned upside down to fill the mould cavity.

Master casters in Asante do not measure the amount of brass to be used for each wax model and could sometimes produce incomplete or overfilled works: The weight of brass to be used in the *cire-perdue* casting process is equal to the weight of its wax model that is multiplied by the specific gravity of brass which is 8.5.

The *cire perdue* process employed in Asante is mainly for the casting of miniature sculptures.

The firing furnace for the casting is built in the open (outdoor firing furnace) with the use of charcoal powered by an electric blower. The casters do not wear protective covers against firing hazards.

The sixteen (16) contemporary goldweights based on contemporary events were produced depicting both natural and artificial objects. The one hundred and seventy (170) contemporary weights depicting contemporary objects-based proverbs were all produced depicting artificial objects only.

Brass of green-gold colour dominated the pieces in the casting. This was revealed through the colour of the finished works, that is; 70 % Copper and 30 % Zinc.

Interpretation that could be derived from the contemporary proverbs produced in goldweights is artistic impression including; traditional *Adinkra* symbolism, textile motifs, wall designs, linguists' staff, and body adornments.

The visual interpretation derived from the contemporary proverbs are identified in many Visual Art disciplines including; ceramics, metal works, wood works, textile and fashion designing, leather works, painting, canvas, and paper designing.

The relevance of the goldweights to the created contemporary proverbs are; historical record keeping, documentation of important events, repository of Asante knowledge on wisdom in proverbs, and acceptance of oral tradition as a source of documented history in Ghana.

6.3. Conclusions

The study has drawn a number of conclusions based on the findings from the survey and each of the research questions has been addressed. It is concluded that; proverb creators could also be identified through public speaking during durbars, festivals, and major public events.

While males are involved in proverb creation; it is rare to see females contesting in proverb-saying competitions. A woman could therefore, train a son in proverb creation to be able to contest in competitions.

While indigenous Asante proverbs have no known creators and dating, contemporary Asante proverbs could be dated based on the period or date the contemporary item came into the country or the date of the contemporary event, and the author could be possibly named.

Contemporary Asante proverbs as well have both literal and philosophical meanings as they are closely related to indigenous Asante proverbs. It is practical for proverb creators to use contemporary items and events for the creation of Ghanaian contemporary proverbs in any Ghanaian language.

The study did not gain access to the complete repository of contemporary items and events in Ghana. It was limited to identification of 186 contemporary items and events for the creation of 216 contemporary proverbs.

The created contemporary Asante proverbs would be useful alongside the existing indigenous Asante proverbs in the Ghanaian oral literature.

The two metal casting processes are practically good but using the Asante technique is faster and unique.

In measuring the amount of brass to be used in casting, applying the equation; $b = msg$, where b is the weight of brass, m is the weight of wax model, and sg is the specific gravity of brass provides accurate result.

The mould preparation could be improved to accommodate large castings other than miniature sculptures. The firing cannot be carried out when it is raining, thereby, limiting the casting process to only fine weather periods.

While goldweights based on contemporary events contain both natural and artificial objects; the goldweights based on contemporary items contain artificial objects only. Both are however, accepted as contemporary proverbial goldweights.

Other artistic impressions that could be derived from the contemporary proverbs produced in goldweights are symbolic motifs for traditional stools such as *Asipim*, chiefs' headgears, gift items, and decorative pieces.

There is imaginative as well as creative power in the created contemporary proverbs as they are all interpreted in goldweights as visual representation. The visual interpretations could be used everywhere in the Ghanaian visual environment.

The produced contemporary goldweights represent the material culture of the Asante wisdom in proverbs. They are a monument for preserving the culture of Asante proverbs.

Goldweight production in Asante has declined and production of contemporary items is only used as curios without proverbial attachments. An idea that could be difficult to understand, explain, or grasp through language could easily be interpreted by identification of these contemporary proverbial and eventful based

goldweights. The cast contemporary weights are portable and could be held by the hand for thorough inspection.

These cast contemporary goldweights would supplement the already existing goldweights in Ghana and the idea that was left to the researcher alone could now be accessible to the general public. This calls for further research in the area of contemporary goldweight production as development and generation of new ideas continue to invade the society.

The achievement of the research objectives is supported by Ampem's (1995) statement that, keeping of goldweights will contribute in unfolding the patterns and practices that characterised the lives of the Ghanaian people from the past.

This work on contemporary goldweight production examined the relationship between Akan oral literature and art objects; the use of contemporary objects in the goldweight production reflects intermingling of cultures, as well as cultural transmission and assimilation.

This research on reinvigorating Asante *cire-perdue* casting technique through production of goldweights on contemporary Asante proverbs is a step of reviving goldweight production to enhance job creation

In conclusion, these contemporary items and eventful goldweights based on contemporary Asante proverbs convey the beauty and visual message of masterpieces of the Ghanaian contemporary artists.

6.4. Recommendations

For the sake of increasing knowledge in the production of contemporary proverbial and scenic goldweights in Ghana, and to encourage more research activities by researchers and students, but not limiting it to the general public, as well as enhancing job creation, the researcher has assigned the following recommendations to stakeholders for implementation. It is hoped that the Government of Ghana, Non-Governmental Organisations (NGOs), parastatal organisations, educational institutions, the private sector, traditional rulers, and individuals would make good use of the recommendations to enhance development of the brass casting industry in Ghana.

- The media houses, especially radio stations in Asante should continue the search for more proverb creators and organise more proverb competitions to increase the knowledge base on identification of contemporary items and events. This would enhance the search for more contemporary items and events for research. These proverb creation competitions could dwell solely on contemporary proverbs leading to production of more contemporary goldweights in contemporary Ghana. With the increasing number of females in cultural and related studies, as well as traditional leadership, they are encouraged to participate in proverb creation programmes to showcase their potential. According to Nana Kwadwo Bonsu (pc, 2016) a woman composing a proverb or using a proverb to interweave language is not sacrilegious in Asante.
- Producers of proverb-saying, and proverb-creation radio programmes as well as researchers are encouraged to keep record of proverb creators and dating of contemporary proverbs to wipe off the notion that Asante proverbs have no authorship and dating, and as such, proverb creation in

Asante is a reserve of our forefathers. The created contemporary Asante proverbs should be projected by the identified contemporary proverb creators through radio programmes, public gatherings, and major public events to illuminate the innovative contemporary Asante proverbs.

- Researchers in art and culture including this researcher are encouraged to use existing traditional activities to identify and encourage young proverb creators, and project them through documentation of information about their works. Through active participation, the youth would be motivated to do more for the enhancement of contemporary goldweight production to support job creation and youth employment.
- Family heads, parents, and teachers of Ghanaian Language should encourage children and adults as well as students to learn to understand and use contemporary Ghanaian proverbs in their daily conversation with their peers in order to exhibit good control over the Ghanaian language.
- Goldweight casters are encouraged to adopt the use of the Asante technique of *cire-perdue* casting to enhance diffusion of the technique, and sustainability of such a local initiative; as well, the casters should take a serious consideration of using the equation; $b = msg$ for the measurement of metal to be used in casting based on relationship between the weight of the wax model and specific gravity of that metal.
- The open firing process employed in the production of goldweights is dangerous to human health. All artisans in the industry could afford properly designed electric or Liquefied Petroleum Gas (LPG) furnace, as well as wearing protective covers to ensure reduction of occupational hazards.

- Proverb creators are encouraged to create two or more proverbs from each contemporary event identified that has the potential to contain many contemporary objects since each contemporary object as well, is potentially usable in proverb creation.
- Silhouettes of the contemporary goldweights should be developed as motifs for textile and fabric designing by contemporary artists. The inability of artisans to exhibit skills in generating new art forms as symbols to support the handicraft industry is alarming due the fact that the old symbols are being over utilised and the quality of their value is reducing. Amate (2011) stated that, in order to preserve traditions in our contemporary era, there is the need to frequently create and introduce new and innovative symbols from proverbs, otherwise, sayings and the life stories of our people into the system to augment the existing ones as well as to educate and to tell our story to the outside world remain static.
- The contemporary goldweights could be used as sword ornaments or handles, finger ring tops, pendants, and umbrella finials as a new form of innovation by traditional authorities, and elders of various communities. The Ghana Museums and Monuments Board, and private museums are encouraged to obtain copies of these contemporary goldweights to resource their shelves.
- Large castings should be made by metal casters through the introduction of step-casting of two or three-part mould with keys such that the parts could be assembled to make larger units of the *cire-perdue* technique including busts as an improvement of the casting of miniature sculptures. Modern technologies like permanent moulds should be used by metal

casters to enhance mass production in the case of general *cire-perdue* casting instead of the traditional expendable moulds.

- While the situation of the classical and modern Ghanaian periods is static; the contemporary Ghanaian period is potentially dynamic and will undergo additional changes with more of new contemporary items and events. Many more contemporary proverbs could, therefore, be created through oral communication to enhance the production of more contemporary goldweights for the development of the metal casting industry in Ghana.
- There is the need by Government and the District/Municipal Assemblies in Asante to provide financial support to the brass casting industry players to enhance expansion. This would lead to increase in the number of youth in apprenticeship, thereby, increasing the number of master craftsmen in the near future. This could be achieved through the ‘one district one factory’ initiative by government if the Assemblies could assist the artisans form co-operative organisations with full-time management in place to assess the needs in terms of advertisements, exhibitions, and marketing at both local and international levels. According to J. Agyemang (p.c) the Aid to Artisans Ghana; an NGO made efforts to assist metal casters market their products but because of the absence of a co-operative, it was rather done on individual basis that could not have the capacity to survive. Scrap dealers in the Kumasi Metropolis must be financially supported by Banks, and the Kumasi Metropolitan Assembly (KMA) to set up scrap collection centres where people could walk-in and sell their unwanted metal scrap. This would enhance the removal of large

quantities of waste brass that pollute the environment. There are, although, a few scrap collection centres for individuals; they usually engage people to scavenge from refuse dumps for brass and other metals.

6.4.1. *Implications for further research*

- Since the objectives of the research centred on production of contemporary goldweights. The main focus was on designing, modelling and casting of the contemporary weights to depict contemporary items, lifestyles and events in Ghana. The study, therefore, calls for further research on relating contemporary proverbs in this study to classical Ghanaian proverbs. Researchers, teachers, and students are encouraged to take part in this exercise.
- Further research on developing symbols out of the 186 contemporary proverbs should be considered by teachers and students in creative arts to increase the number of indigenous and local symbols as well as motifs for designing.
- Since the study could not gain access to the complete repository of contemporary items in Ghana limiting the research to identification of one hundred and eighty six (186) contemporary items and events only; the study recommends further research on production of goldweights depicting contemporary proverbs based on newly identified contemporary items, events, innovations, and technologies that were not identified for this research as well as that which are yet to come.

In conclusion to this chapter, the recommendations are relevant towards the achievement of values of contemporary goldweights as well as contemporary proverbs in verbal communication and oral literature.

It is the hope of the researcher that attention would be given to these recommendations by policy-makers and all stakeholders to help convey the messages in this study to the benefit of the Ghanaian society.



REFERENCES

- Aboagye, B., Yankson, E. P., Frimpong, O. (2016). Design and construction of foot-operated tap for handwashing facility. *Sunyani Polytechnic Journal*, 1(2).
- Ackah, C. A. (1988). *Akan ethics: A study of the moral ideas and the moral behavior of the Akan tribes of Ghana*. Accra: Ghana Universities Press.
- Acquaah, G. R. (1940). *Mfantse Akan mmebusem*. Cape Coast: Methodist Book Depot.
- Adaye, J. J. (1947). *Twi mmebusem ahannum mmoano*. Kumasi Ashanti: Basel Mission Book Depot.
- Adu-Akwaboah, S. (1994). *Art for schools and colleges*. Kumasi Ashanti: Samarg Publications.
- Agyedu, G. O., Donkor, F. & Obeng, S. (2013). *Teach yourself research methods*. Kumasi Ashanti: Private Printing.
- Agyekum, K. (2011). *Akan Kasadwini*. Akropong Akuapim: Dwumfour Press.
- Agyekum, K. (2017). The Ethnosemantics and Proverbs of ohia, "poverty" in Akan. *Legon Journal of the Humanities*.
- Ahene-Attoh. (1976). *Twi kasakoa ne kasatɔ mmɛ bi*. Accra, Ghana: Ghana Publishing Corporation.
- Akrofi, C. A. (1958). *Twi mmebusem*. Kumasi, Ashanti: Presbyterian Book Depot.
- Akrofi, C. A. (1958). *Twi mmebusem*. London: MacMillan.
- Amate, P. (2011). Visual representation of selected Akan proverbs in Ghana: Their philosophical and cultural values. *Master of Art Thesis*. Kumasi, Ashanti: Kwame Nkrumah University of Science and Technology.
- Ampem II, O. N. (1995). *Speech delivered by Oyeeman Nana Wereko Ampem II at the handing-over ceremony of the goldweights collection to the University of Ghana*. Accra: Univeristy of Ghana.
- Ampem, A. A. (1998). *Akan mmebusem bi*. Kumasi, Ashanti: University Press.
- Anderson, S. E. (2005). *Collins English Dictionary* (1st ed.). Oxford: Clarendon Press.
- Anene, J. C. (1966). *Africa in the Ninetheenth and Twentieth Centuries*. Ibadan, Nigeria: Ibadan University Press.
- Anobil, J. A. (1955). *Mmebusem nkyerekyeremu*. Cape Coast: Methodist Book Depot.
- Appiah, K. A. (1993). *In my father's house: Africa in the philosophy of culture*. New York: Oxford University.

- Appiah, K. A. (2015, April 11). Press. *Africana*. Retrieved April 11, 2015, from Wikipedia.
- Appiah, P. &. (2000). Bu me be. *The Centre for Intellectual Renewal*.
- Army Institute for Professional Development. (1985). Metal Properties, Characteristics, Uses and Codes. *US Army correspondence course program*. Washington, United States.
- Arthur, G. F. (2001). *Akan metal casting*. Beltsville, USA: CEFIKS Publication.
- Asare, M. (1981). *The brassman's secret*. Accra: Educational Press.
- Asmah, E. A. (1992). Brass casting at Ampabame Krofofrom-a case study. *Post-Graduate Diploma in Art Education. Long Essay, U.S.T.*
- Awedoba, A. K. (2000). *An introduction to Kasena society and culture through their proverbs*. Lanham: University Press of America.
- Ayensu, E. S. (1977). *Ashanti Gold*. Accra: Ashanti Goldfields Limited.
- Bakker, P. (2017). *Mixed Languages, Introduction*. Retrieved from (<http://www.oxfordbibliographies.com>)
- Benard, R. H. (2006). *Research methods in Anthropology*. London: Alta Mira Press.
- Boadi, G. B. (2014). *Kenkan me*. Ejura, Ashanti: Boadi Series.
- Bourke, B. (2014). Positionality: Reflecting on the Research Process. *The Qualitative Report*, 19(33), 1-9. Retrieved from <https://nsuworks.nova.edu/tqr/vol119/iss33/3>
- Bowdich, T. E. (1819). Mission from Cape Coast to Ashantee.
- Bridged Books Group. (2012). *Properties, Identification and Heat Treatment of Metals*. New York City: Barnes and Noble.
- Brivati, B. B. (1996). *The Contemporary history handbook*. Manchester: Manchester University Press.
- Bryman, A. (2004). *Social Research Methods*. Oxford: Oxford University Press.
- Buaduo, N. A. (2012). Epistemology of proverbs and idioms of the Asante ethnic group of Ghana for introspection. *The Journal of Pan-African Studies*, 5(3).
- Bureau of International Recycling. (2008). *Ferrous & Nonferrous metals*. Retrieved July 2015, from BIR: www.bir.org

- Burton, R. R. (1865). *Wit and wisdom from West Africa or a book of proverbial philosophy, idioms, enigmas and laconisms*. London: Tinsley Brothers.
- Chambers 21st Dictionary. (n.d.).
- Chilvers, I. &. (1988). *The Oxford Dictionary of Art*. Oxford: Oxford University Press.
- Chrystaller, J. G. (1879). *A collection of 3,600 Tshi proverbs*. Basel Mission.
- Collins English Dictionary. (2005). (H. Collins, Ed.) Glasgow: Happer Collins Publishers.
- Cooper, D. R. (2001). *Business research methods*. New York. N.Y: McGraw-Hill Higher Education.
- Dawson, C. (2001). *Practical research methods*. London. UK: How To Book Limited.
- De Veaux, R. D. (2009). *Intro Stats*. USA: Pearson Education Inc.
- Dede, M. (2015). *Akuapem Twi: A complete textbook for Basic Schools*. Tema, Ghana: Koo-Martins Publications.
- Denkyira, A. M. (1999). *Writing your long essay/dissertation and journal article*. Tema, Ghana: Janelex Ventures.
- Dey, I. (1993). *Qualitative data analysis*. London, UK: Roultdge.
- Dodds, M. (1976). *Ghana talks*. Washington D.C, USA: Three Continents Press.
- Dolphyne, A. F. (1996). *A comprehensive course in Twi (Asante)*. Accra, Ghana: Ghana University Press.
- Donkor, E. K. (2015). Scrap metal Art: An instrument for promoting environmental sanitation. *Master of Philosophy Thesis*.
- Dorgbadzi, S. (2016). *Anasesem and contemporary Ghanaian theatre: Metaphysical content and performance easthetics*. Legon: University of Ghana.
- Dzobo, N. K. (1997). *African proverbs: The moral value of Ewe Proverbs* (Vol. 2). Accra, Ghana: Bureau of Ghana Languages.
- Ehondor, B. (2017). The concept of proverbs as a theoretical category in communication in Africa. *An MSC Term Paper*.
- Emery, A., Williams, K. P., & Griffiths., A. J. (2002). A review of the UK metals recycling industry. United Kingdom. *Waste and Management Research*.
- Engineering Handbook (2006), *Engineering Materials-Ferrous and Nonferrous metals*. United Kingdom: Retrieved November 5, 2016, from www.engineeringhandbook.com

- European Commission Joint Research Centre Institute for Prospective. (n.d.).
- Fosu, K. (1994). *Traditional Art of Ghana*. Kumasi, Ashanti: Dela Publications and Design Services.
- Foulke, E. G. (2008). Guidance for the identification and control of safety and health hazards in metal scrap recycling. *Occupational Safety and Health Administration, US Department of Labour*.
- Fox, C. (1988). *Asante brass castings*. Cambridge: Cambridge University Press.
- Fraser, D. &. (1972). *African Art and Leadership*. USA: University of Wisconsin Press.
- Garrard, T. F. (1980). *Akan weights and the gold trade*. London, UK: Longman Group Limited.
- Ghana Museums and Monuments Board. (1970). *National Museum of Ghana handbook*. Tema: Ghana Publishing Corporation.
- Gidal, N. T. (1971). *Goldweights of the Ashanti*. Jerusalem, Israel: Central Press.
- Goetz, P. W. (1988). *The New Encyclopaedia Britannica* (Vol. Micropaedia 1). Chicago, USA: Encyclopaedia Britannica Inc.
- Green, L., & Baxen, J. (2002). The selection of training of fieldworkers in educational research: A Western Cape inquiry. *South African Journal of Education*, 22(4), 319-325.
- Gyanfosu, S. *et al.* (2010). *African Studies*. Cape Coast, Ghana: CoDE Publications.
- Gyanfosu, S. *et al.* (2015). *African Studies*. Cape Coast, Ghana: CoDE Publication.
- Gyekye, K. (1996). *African cultural values: an introduction*. Accra, Ghana: Sankofa Publications Company.
- Harvey, P. (. (1963). *The Oxford Encyclopaedia of proverbs*. Oxford, UK: Clarendon Press.
- Healey, J. (1998). *Statistics: A tool for social research*. California, USA: Wadsworth Publication Company.
- Hof, I. S. (1994). *Kuroforom, the traditional craft of brass casting in a modern Asante community*. Switzerland: Ethnological Institute of University of Basel.
- Hornby, A. S (ed). (2000). *Oxford Advanced Learner's Dictionary of Current English* (6 ed.). New York: Oxford University Press.
- http://sydney.edu.au/education_social_work/learning_teaching/ict/theory/constructivism.shtml) Accessed: March, 2016. (n.d.).

- <http://www.brainyquotes.com>. (n.d.). Retrieved February 2016
- <http://www.thegreathandbookofquotes> Accessed: March, 2. (n.d.).
- <https://pdfs.semanticscholar.org>. Accessed: April 2016. (n.d.).
- Kjersmeier, C. (1948). *Ashanti Vaegtloadder (weights)*. Jul: Gjellerups Forlag.
- Kolb, E. (1968). *Ashanti goldweights*. New York: Gallery d'Hautbarr.
- Kwakye, S. (2012). *Asante Twi kasa safoa*. Kumasi, Ghana: Bronze Printek Press.
- Kwakye, S. (2013). *Asante Twi kasa safoa*. Kumasi, Ashanti: Sylvester Kwakye Publication.
- Kyerematen, A. A. (1964). *Panoply of Ghana*. London, UK: Longmans, Green & Co. Limited.
- Kyeremateng, K. N. (2000). *Akanfoɔ mmɛbusem bi*. Accra: Sebewie Publishers.
- Labi, A. K & Boachie-Ansah, J. (2008). *Kuduo, the Akan art of brass casting*. Accra, Ghana: Smartline Publishing Limited.
- Lange, R. K. (2006). *Dagbani Proverbs*. Tamale, Ghana: Cyber Systems.
- Lange, R. K. (2012). *Dagbani Proverbs*. Tamale, Ghana: Cyber Systems.
- Leuzinger, E. (1992,1972). *The Art of Black Africa*. London, UK: Studio Vista Publishers.
- Leyten, H. M. (1979). *Goldweights*. Amsterdam: Kepri van Rijn.
- Litovkina, A. T. (2006). *Old proverbs never die. They just diversify: A collection of anti-proverbs*. Burlington: University of Vermont.
- Lyson, P. &. (2010). *The dissertation from begining to end*. Oxford: Oxford University Press.
- Mason, D. R. (1993). *Statiscal techniques in Business and Economics*. USA: Irwin.
- McLeod, M. D. (1981). *The Asante*. London, UK: The British Museum Publications.
- McNab, J. (2008). *Metalwork. Microsoft Encarta Student*. USA: Microsoft Corporation.
- Mcniff, S. (2004). Research in new keys: An introduction to the ideas and methods of Arts-Based research. *Journal of Pedagogy Pluralism and Practice*, 9. Retrieved July 7, 2016, from <http://www.lesley.edu.news.publications.toc>.
- Mensah, J. S. (1963). *Anansesem ne mmɛbusem bi*. Kumasi, Ashanti: Private Printing.

- Menzel, B. (1989). *Golgewichte aus Ghana*.
- Meyerowitz, E. L. (1949). *The sacred state of the Akan*. London, UK: Fabe & Faber Limited.
- Microsoft Encarta Dictionary. (n.d.). Retrieved June 2015
- Mieder, W. & Dundes, A. (1994). *The Wisdom of many: Essays on the proverb*. Madison: University of Wisconsin Press.
- Mish, F. C. (2009). *Merridiam Webster's Collegiate Dictionary* (11 ed.). USA: Merridiam-Webster Incorporated.
- Moon, W. J. (2015). *African Proverb: Stepping stones within oral cultures*. Retrieved from <http://books.google.com/book>
- Moyes, R. (2005). 2005. *The Geneva International Center for Humanitarian Demining*.
- Moyes, R. & Vannachack, L. (2005). Report on, A study of scrap metal collection in Laos PDR. *International Centre for Humanitarian Demining*.
- Naciscione, A. (2015). *A cognitive stylistic perspective of use of proverbs*. Frankfurt, Germany: Peter Lang.
- Nsiah, M. K. (2015). *Twi akenkan kotokuo nsafoa*. Sunyani, Ghana: St. Augustine Publications.
- Obeng, A. S. (2013). *Guidelines on social research methods*. Ghana: Yaci Publications.
- Obeng, S. G. (1996). The Proverb as a mitigating and politeness strategy in Akan discourse. *Anthropological Linguistics*, 520-545.
- Ofei-Ayisi. (1966). *Twi mmebusem ahanson aduonum wo Akuapem wo Twi mu (750 Twi Proverbs in Akuapem)*. Accra: Waterville Publishing House.
- Okyere-Boateng, S. (2003). Metal casting in Asante. *Unpublished Master of Philosophy Thesis*.
- Opoku, K. A. (1997). *Hearing and keeping Akan proverbs*. (C. C. Ghana, Ed.) Accra: Asempa Publishers.
- Osei, K. (2000). *An outline of Asante history part 2* (Vol. 1). Agona, Ashanti: O. Kwadwo Enterprise.
- Osei, K. (2004). *An outline of Asante history part 1* (3 ed.). Kumasi, Ashanti: O. Kwadwo Enterprise.
- Phillips, T. (1996). *Africa, the Art of a continent*. London: Royal Academy of Arts.

- Phillips, T. (2010). *African Godweights: Miniature sculptures from Ghana 1400-1900*. London, UK: Hansjorg Mayer.
- Plass, M. (1960). *African Miniatures*. London, UK: Lund Humphries Limited.
- Rachewiltz, B. (1966). *Introduction to African Art*. London: John Murray.
- Rattray, R. S. (1914). *Ashanti proverbs*. Oxford, UK: Clarendon Press.
- Rattray, R. S. (1923). *Ashanti*. Oxford, UK: Clarendon Press.
- Relishinteriors. (2012). *Modern versus contemporary - what is the difference?* Retrieved March 2016, from <http://blog.relishinteriors.com>
- Robinson, M. (1996). *Chambers 21st Century Dictionary*. Cambridge, UK: Cambridge University Press.
- Rooney, K. (1999). *Encarta World English Dictionary*. London, UK: Bloomsbury Publishing Plc.
- Ross, D. H. (2002). *Gold of the Akan from the Glassel collection*. Houston, USA: The Museum of Fine Arts.
- Rubin, A. & Babbie, E. (1997). *Research methods for social work*. USA: Brook & Cole Publishing Company.
- Sarpong, K. A. (1998). *Asante lost-wax casting*. Kumasi, Ghana: A seminar report.
- Sinclair, J. (2006). *Collins Cobuild Advanced Learner's Dictionary* (5th ed.). Glasgow: HarperCollins Publishers.
- Smith, W. G. (1963). *The Oxford Dictionary of English Proverbs*. Oxford, UK: The Clarendon Press.
- Socorro, L. C. (2014). *Metals*. I. E. S Technology.
- Stiles, K (2012). *Theories and documents of contemporary art*. Los Angeles, USA: University of California Press.
- Sutherland, R. & Rattray, R. S (1969). *Ashanti proverbs: The primitive ethics of a savage people*. Oxford, UK: Clarendon Press.
- Taylor, K. A. (n.d.). *Forty-five sayings of Dr. James Kwegyir Aggrey*. Araba Taylor Publications.
- Technological Studies. (2008). *End of waste criteria, Final Report*. Seville, Spain: Luxembourg: Office for Official Publications of the European Communities.
- Tetteh, V. A. (n.d.). *Akan proverbs*. Accra, Ghana: National Commission on Culture.

- Thomason, S. G. (1983). Genetic relationship and case of Ma'a (Mbugu). *Studies in African Linguistics*, 14(2). Retrieved from <http://elanguage.net/journals/sal/article/view/1138/1154>.
- Tsikata, D., Fenny, A. P., & Aryeetey, E. (2008). China-Africa Relations: A case study of Ghana. *Draft Scoping Study for African Economic Research Consortium*.
- University of Education. (2011). *General guidelines for preparation and submission of theses, dissertations and project reports for higher degrees* (2nd revision). Winneba, Ghana: School of Graduate Studies, U. E. W.
- Untracht, O. (1984). *Jewelry concepts and technology*. New York City, USA: Doubleday Publishers.
- Valiulyte, S. (2010). *Proverbs as a reflection of life and thinking of English*. Retrieved April 2, 2015, from <http://books.google.co..book>.
- Walaszewska, E. (2013). Like in Smile- A relevance- Theoretical review. *Warsaw Research in Language*, 11(3).
- Walter, J. P. (1996). *Contemporary Proverbs: From Theory to Practice*. Washinton D.C, USA: National Council of Teachers of English.
- Ward, L. (2004). *A distinction with a difference*. Retrieved from www.phrases.org.uk/bulletin
- Wiersma, W. & Jurs, G. S. (2009). *Research methods in Education*. USA: Pearson.
- Wikipedia free encyclopaedia. (n.d.). Retrieved May 11, 2015
- Wright, A. (2008). *Metal alloys - properties and applications of brass alloys*. Australia: Austral Wright Metals.
- Yayoh, W., Wilson, A., Amlor, M. Q., Frimpong, N., & Alidza, M. (2015). *African Studies*. Cape Coast, Ghana: CoDE Publications.
- Yidana, J. J. (2002). *Who killed the judges?* Accra, Ghana: Jacob Jabuni Yidana.

APPENDIX A

INTERVIEW GUIDE

Phase one

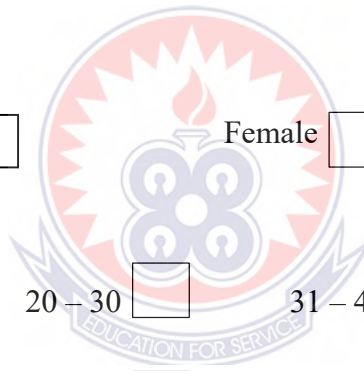
(For Traditional Chiefs and Elders, Teachers in Art and Cultural Studies, Metal Casters, and Students)

These questions have been designed to seek answers purely for an academic purpose, and confidentiality is much assured.

1. Personal data:

a. Sex (please tick): Male Female

b. Age (in years, please tick): 20 – 30 31 – 40 41 - 50
51 – 60 61 – 70 Above 70



2. What is Asante indigenous (classical) proverb?

.....
.....
.....
.....

1. What do you understand as contemporary Asante proverb?

.....
.....

.....
.....

4. How can proverb composers be identified in Asante?

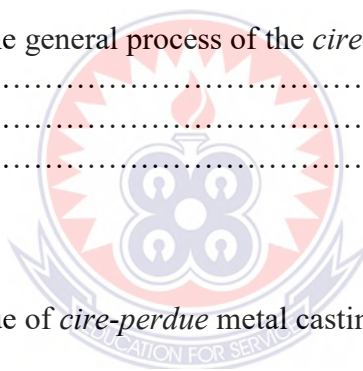
.....
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5. What is the *cire-perdue* metal casting, practised in Asante?

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6. How would you describe the general process of the *cire-perdue* metal casting?

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.....



7. How is the Asante technique of *cire-perdue* metal casting carried out?

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.....
.....

8. How relevant is the use of the Asante technique to goldweight production?

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.....

9. What visual or artistic impressions usually depict Ghanaian proverbs?

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.....

10. In which areas are the visual representations usually used?

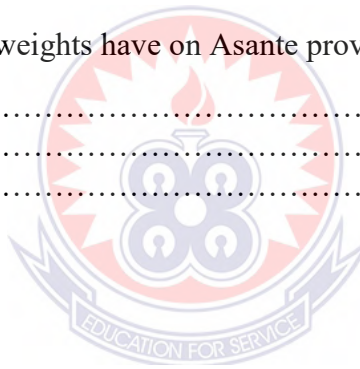
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11. What relevance do the goldweights have on Asante proverbs?

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.....
.....

12. What impacts do the goldweights have on Asante proverbs?

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.....
.....



13. What other relevant information do you have about brass casting of goldweights that represent contemporary proverbs in Asante?

.....
.....
.....

Thank you for your acceptance as a participant in this project.

S. Okyere-Boateng.
U. E. W.

INTERVIEW GUIDE

Phase Two

(For Proverb Creators only)

These questions have been designed to seek answers purely for an academic purpose. Confidentiality is, however, assured unless the respondent, otherwise; persuades the interviewer to project him / her through the contributions made.

2. Personal data:

- a. Sex, (Please tick): Male Female
- b. Age range (in years, please tick): 20 - 30 31 - 40 41 - 50
51 - 60 61 - 70 above 70

c. Occupation / Profession:

.....
.....

d. Experience in proverbs creation (in years):

.....

3. Identification of contemporary objects and events:

Please identify each of the attached 170 objects and 16 historical events on the Self Designed Drawing Interview Guide (SDDIG) and use them to answer the following questions.

- a. Use each of the 186 drawings to compose one or more proverbs: (Provide all answers on the SDDIG).

i.

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.....

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.....
.....

ii.

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.....

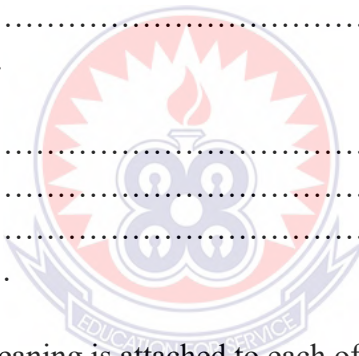
b. Relate each of the created proverbs to a classical or indigenous Asante proverb.

i.

.....
.....
.....
.....

ii.

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.....
.....
.....



c. What philosophical meaning is attached to each of the proverbs?

i.

.....
.....
.....
.....

ii.

.....
.....
.....
.....
.....

4. Focus Group Discussion.

You are invited to be part of a programme to discuss the created contemporary proverbs with selected Traditional Elders. These panelists have the mandate to **accept or reject** any of the created proverbs with explanation.

Your usual cooperation will be anticipated.

Thank you.

S. Okyere-Boateng.

U. E. W.



APPENDIX B

Cast Objects

 <p>1. Clip</p>	 <p>2. Box iron</p>	 <p>3. Match box</p>	 <p>4. Toilet roll</p>
 <p>5. Candle</p>	 <p>6. Plastic chair</p>	 <p>7. Mosquito spray</p>	 <p>8. Suitcase</p>
 <p>9. Wardrobe</p>	 <p>10. Ironing board</p>	 <p>11. Toothbrush</p>	 <p>12. Decoder</p>
 <p>13. Laptop computer</p>	 <p>14. Computer keyboard</p>	 <p>15. Computer mouse</p>	 <p>16. Television</p>

 <p>17. Radio</p>	 <p>18. Megaphone</p>	 <p>19. Microphone</p>	 <p>20. Light bulb</p>
 <p>21. Electric iron</p>	 <p>22. Fluorescent tube</p>	 <p>23. Computer</p>	 <p>24. Refrigerator</p>
 <p>25. Electric stove</p>	 <p>26. Dry cell battery</p>	 <p>27. Audio cassette</p>	 <p>28. Compact disk</p>
 <p>29. Diskette</p>	 <p>30. Water heater</p>	 <p>31. Electric fan</p>	 <p>32. Washing machine</p>









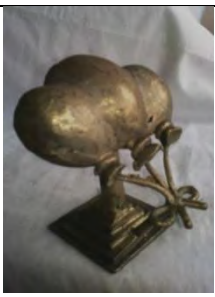
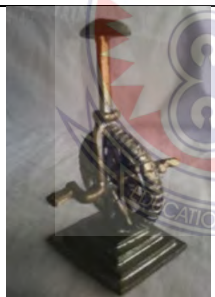
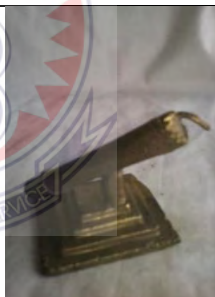



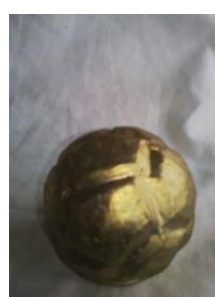

 <p>33. Electric pre-paid meter</p>	 <p>34. Antenna</p>	 <p>35. Traffic lights</p>	 <p>36. Flash drive</p>
 <p>37. Sim card</p>	 <p>38. Remote control</p>	 <p>39. Modem</p>	 <p>40. Video cassette</p>
 <p>41. DVD player</p>	 <p>42. Solar panel</p>	 <p>43. Portable hair dryer</p>	 <p>44. Hair dryer</p>
 <p>45. Electric Hair cutter</p>	 <p>46. Score board</p>	 <p>47. Satellite dish</p>	 <p>48. Extension board</p>

 <p>49. Hand drill</p>	 <p>50. Wall clock (pendulum)</p>	 <p>51. Table clock</p>	 <p>52. Headphone</p>
 <p>53. Voltage stabiliser</p>	 <p>54. Air conditioner</p>	 <p>55. Electric voltage transformer</p>	 <p>56. Cell phone</p>
 <p>57. Land line telephone</p>	 <p>58. Feeding bottle</p>	 <p>59. Food blender</p>	 <p>60. Kettle</p>
 <p>61. Microwave oven</p>	 <p>62. Disposable food bowl</p>	 <p>63. Spoon</p>	 <p>64. Vacuum Flask</p>

 <p>65. Disposable cup</p>	 <p>66. Bottle opener</p>	 <p>67. Tin cutter</p>	 <p>68. Breadknife</p>
 <p>69. Fork</p>	 <p>70. Syringe.</p>	 <p>71. Pair of scissors</p>	 <p>72. Digital weighing scale</p>
 <p>73. Wheel chair</p>	 <p>74. Thermometer</p>	 <p>75. Sphygmomanometer</p>	 <p>76. Stethoscope</p>
 <p>77. Microscope</p>	 <p>78. Ambulance</p>	 <p>79. Helmet</p>	 <p>80. Screw driver</p>

 <p>81. Water tap</p>	 <p>82. Caterpillar</p>	 <p>83. Road roller</p>	 <p>84. Water closet</p>
 <p>85. Louvre blades</p>	 <p>86. Pair of pliers</p>	 <p>87. Spanner</p>	 <p>88. Shovel</p>
 <p>89. Wash-hand basin</p>	 <p>90. Forklift</p>	 <p>91. Navigator's compass</p>	 <p>92. Car</p>
 <p>93. Aeroplane</p>	 <p>94. Bicycle</p>	 <p>95. Automobile battery</p>	 <p>96. Articulated truck</p>

 <p>97. Train</p>	 <p>98. Ship</p>	 <p>99. Vehicle tyre</p>	 <p>100. Lorry</p>
 <p>101. Scooter / moped</p>	 <p>102. Motorbike</p>	 <p>103. Spectacles</p>	 <p>104. Wedding ring</p>
 <p>105. Shoe</p>	 <p>106. Canvass</p>	 <p>107. Gas mask</p>	 <p>108. Wrist watch</p>
 <p>109. Wellington boots</p>	 <p>110. Tractor</p>	 <p>111. Pruning shears</p>	 <p>112. Chainsaw</p>

 <p>113. Rake</p>	 <p>114. Pen</p>	 <p>115. Pencil</p>	 <p>116. Book</p>
 <p>117. Eraser</p>	 <p>118. Calculator</p>	 <p>119. Slide rule</p>	 <p>120. Seminar bag</p>
 <p>121. Balloon</p>	 <p>122. Unicycle</p>	 <p>123. Cigarette</p>	 <p>124. Bottle of beer</p>
 <p>125. Tricycle</p>	 <p>126. Casino slot machine</p>	 <p>127. Football</p>	 <p>128. Trophy</p>

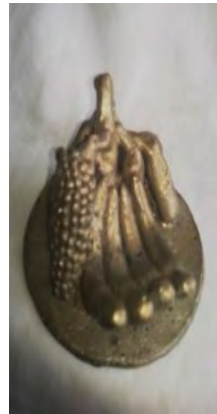
 <p>129. World cup</p>	 <p>130. Hockey sticks</p>	 <p>131. Table tennis bat</p>	 <p>132. Racket</p>
 <p>133. Lawn tennis ball</p>	 <p>134. Boxing gloves</p>	 <p>135. Swivel chair</p>	 <p>136. Office stamp</p>
 <p>137. Stapling machine</p>	 <p>138. Paper perforator</p>	 <p>139. Office printer</p>	 <p>140. Saxophone</p>
 <p>141. Piano</p>	 <p>142. Electric organ</p>	 <p>143. Bottled water</p>	 <p>144. sachet water</p>

 <p>145. Tinned fish</p>	 <p>146. Coca cola</p>	 <p>147. Padlock</p>	 <p>148. Fuel dispenser</p>
 <p>149. ATM</p>	 <p>150. Lawn mower</p>	 <p>151. Camera</p>	 <p>152. Bill board</p>
 <p>153. wallet</p>	 <p>154. Fire extinguisher</p>	 <p>155. Babies' car seat</p>	 <p>156. Stroller</p>
 <p>157. Rain gauge</p>	 <p>158. Binoculars</p>	 <p>159. Water dispenser</p>	 <p>160. Sewing machine</p>

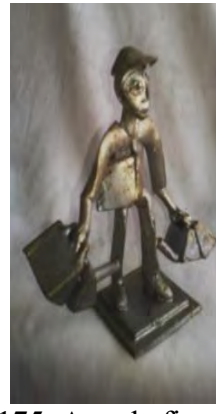
 <p>161. Sign post</p>	 <p>162. Score card</p>	 <p>163. Money counting machine</p>	 <p>164. Cash register</p>
 <p>165. Waste bin</p>	 <p>166. LPG Gas cylinder</p>	 <p>167. Keyholder</p>	 <p>168. Robot</p>
 <p>169. Disposable shaving razor</p>	 <p>170. Laptop bag</p>	 <p>171. Independence arc</p>	 <p>172. A figure of a soldier aiming a gun at a target. (Military Regimes)</p>



173. Five figures standing together. (Proposed Union Government)



174. A pale with foodstuff. (Operation feed Yourself)



175. A male figure holding four bags. (Returnee from Nigeria)



176. A female figure sitting with an unidentified figure (HIV/AIDS menace)



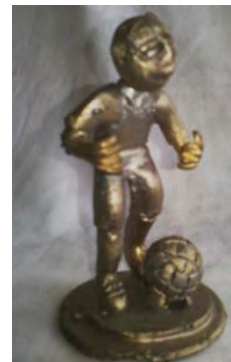
177. Two male figures in masks carrying a patient on a stretcher (Ebola scare)



178. Two male figures in a blissful embrace (2001 Stadium disaster)



179. A truck with a full load of items. (Cocoa evacuation exercise)



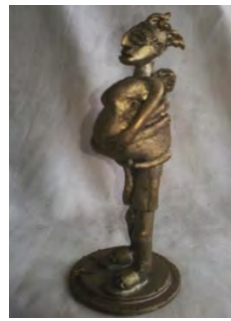
180. A female figure playing football (Female soccer)



181. A male and a female figure doing the 'Bumping dance'



182. A male figure doing the *Azonto* dance



183. A figure of a pregnant woman with a baby at the back (National Health Insurance Scheme)



184. Figures of children eating. (School Feeding Programme)



185. Tricycle refuse conveyer (*Zoomlion* operations)



















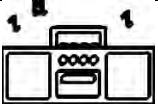


186. Ballot box (Democracy)

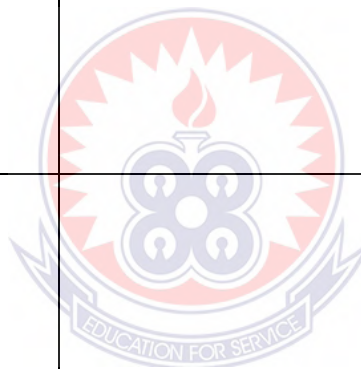












APPENDIX C









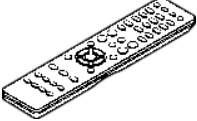
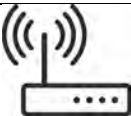
Self-Designed Drawing Interview Guide (SDDIG)

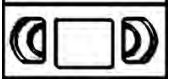









s/n	Object	Use(s)	Attached proverb
1	 Clip		
2	 Box iron		
3	 Match box		
4	 Toilet roll		
5	 Candle		
6	 Plastic chair		
7	 Mosquito spray		
8	 Suitcase		
9	 wardrobe		










10	 Ironing board		
11	 Toothbrush		
12	 Decoder		
13	 Laptop computer		
14	 Computer keyboard		
15	 Computer mouse		
16	 Television		
17	 Radio		
18	 Microphone		
19	 Magaphone		

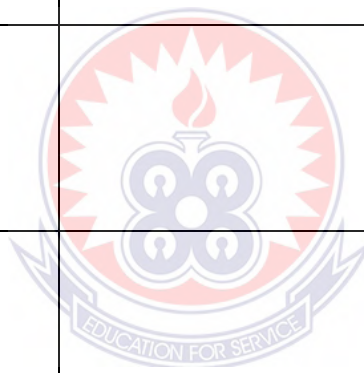












20	 Light bulb		
21	 Electric iron		
22	 Fluorescent tube		
23	 Computer		
24	 Refrigerator		
25	 Electric stove		
26	 Dry cell battery		
27	 Audio cassette		
28	 Compact disc		
29	 Diskette		

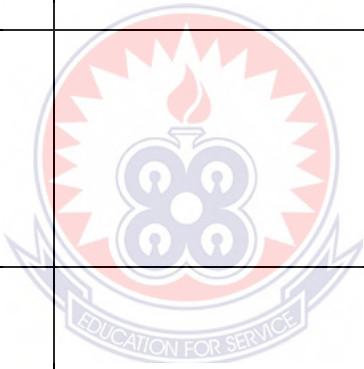
30	 Water heater		
31	 Electric fan		
32	 Washing machine		
33	 Electric pre-paid meter		
34	 Antenna		
35	 Traffic lights		
36	 Flash drive		
37	 Sim card		
38	 Remote control		
39	 Modem		





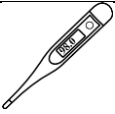





40	 Video cassette		
41	 DVD player		
43	 Solar panel		
44	 Portable hair dryer		
45	 Electric hair cutter		
46	 Score board		
47	 Satellite dish		
48	 Extension board		
49	 Hand drill		
50	 Wall clock (pendulum)		







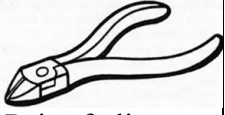
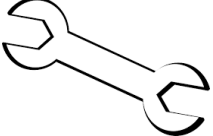


51	 Table clock		
52	 Head phone		
53	 Voltage stabilizer		
54	 Air conditioner		
55	 Electric voltage transformer		
56	 Cell phone		
57	 Land line telephone		
58	 Feeding bottle		
59	 Food blender		






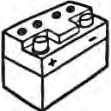
















60	 Kettle		
61	 Microwave oven		
62	 Disposable food bowl		
63	 Spoon		
64	 Vacuum Flask		
65	 Disposable cup		
66	 Opener		
67	 Tin cutter		
68	 Breadknife		
69	 Fork		








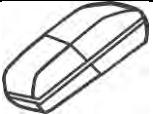















70	 Syringe		
71	 Pair of scissors		
72	 Digital weighing scale		
73	 Wheel chair		
74	 Thermometer		
75	 Sphygmomanometer		
76	 Stethoscope		
77	 Microscope		
78	 Ambulance		
79	 Helmet		











80	 Screw driver		
81	 Water tap		
82	 Caterpillar		
83	 Road roller		
84	 Water closet		
85	 Louver blades		
86	 Pair of pliers		
87	 Spanner		
88	 Shovel		
89	 Wash-hand basin		










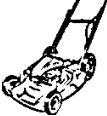
90	 Forklift		
91	 Navigator compass		
92	 Car		
93	 Aeroplane		
94	 Bicycle		
95	 Automobile battery		
96	 Articulated truck		
97	 Train		
98	 Ship		
99	 Vehicle tyre		











100			
	Lorry		
101			
	Scooter / moped		
102			
	Motor bike		
103			
	Spectacles		
104			
	Wedding ring		
105			
	Shoes		
106			
	Canvass		
107			
	Gas mask		
108			
	Wrist watch		
109			
	Wellington boots		

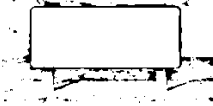









110	 Tractor		
111	 Pruning shears		
112	 Chainsaw		
113	 Rake		
114	 Pen		
115	 Pencil		
116	 Book		
117	 Eraser		
118	 Calculator		
119	 Slide rule		
120	 Seminar bag		





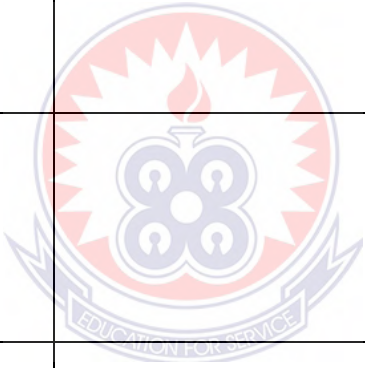


121	 Balloon		
122	 Unicycle		
123	 Cigarette		
124	 Bottle of beer		
125	 Tricycle		
126	 Casino slot machine		
127	 Football		
128	 Trophy		
129	 World cup		
130	 Hockey stick		






131	 Table tennis bat and ball		
132	 Racket		
133	 Lawn tennis ball		
134	 Boxing gloves		
135	 Swivel chair		
136	 Office stamp		
137	 Stapling machine		
138	 Paper perforator		
139	 Office printer		
140	 Saxophone		




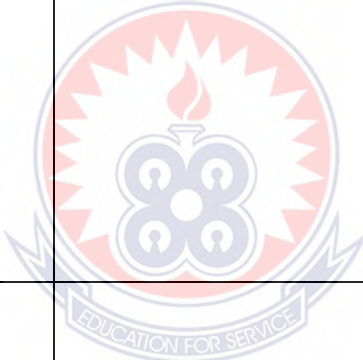



141	 Piano		
142	 Electric organ		
143	 Bottled water		
144	 Sachet water		
145	 Tinned fish		
146	 Coca cola		
147	 Padlock		
148	 Fuel dispenser		
149	 ATM		
150	 Lawn mower		

151	 Camera		
152	 Bill board		
153	 Wallet		
154	 Fire extenguisher		
155	 Babies' car seat		
156	 Stroller		
157	 Rain gauge		
158	 Binoculars		
159	 Water dispenser		
160	 Sewing machine		

161	 Sign post		
162	 Score card		
163	 Money counting machine		
164	 Cash register		
165	 Waste bin		
166	 Gas cylinder		
167	 Robot		
168	 Key holder		
169	 Disposable shaving blade		
170	 Laptop bag		

171	 <p>Independence Arc</p>		
172	 <p>A military man aiming a gun at a target. (Military coups)</p>		
173	 <p>5 people from different institutions in a photograph. (UNIGOV)</p>		
174	 <p>Foodstuff (Operation feed yourself)</p>		
175	 <p>A man with many bags hung on the body (1983 Nigerias' expulsion order)</p>		
176	 <p>A woman consoling a sick person (HIV?AIDS)</p>		

<p>177</p>	 <p>2 health officials in body masks carrying a dead body. (Ebola scare)</p>		
<p>178</p>	 <p>2 people embracing each other. (2001 Stadium disaster)</p>		
<p>179</p>	 <p>A truck full of cocoa (1982 Cocoa evacuation exercise)</p>		
<p>180</p>	 <p>A lady footballer. (Female soccer)</p>		

181	 <p>2 persons in a dancing mood. (Bumping dance)</p>		
182	 <p>A man in a dancing mood. (Azonto dance)</p>		
183	 <p>A pregnant woman with a baby at the back (National Health Insurance Scheme)</p>		
184	 <p>Children at at a dining table. (School feeding programme)</p>		
185	 <p>A man riding a tricycle. (Zoomlion operations)</p>		
186	 <p>Ballot box (Democracy)</p>		

APPENDIX D

Notes

Number of pages	297 (including appendices)
Number of words	57,789

